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Medical Times and Gazette.

A

JOURNAL OF MEDICAL SCIENCE,

LITERATURE, CRITICISM, AND NEWS.

N.S. vol. 36

VOLUME I. FOR 1868.

LONDON:
PUBLISHED BY JOHN CHURCHILL AND SONS, 11, NEW BURLINGTON-STREET;
AND SOLD BY ALL BOOKSELLERS.

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1868
Jan.-June

LONDON:
BENJAMIN PARDON, PRINTER,
PATERNOSTER-ROW.

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ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
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INTRODUCTORY REMARKS ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

GENTLEMEN,—Those who attended here last year will remember that no lectures were delivered on diseases of the nervous system. The session, indeed, is too brief to allow of any approach to a complete course of Medical lectures such as was pretended to be at one time given. It is very true that our distinguished predecessors Bright and Addison were enabled to take up the whole series of subjects in our nosology, and, by the force of their genius, to shed a light on all they approached, which illumines us to the present day, but at the same time it must be confessed that a quarter of a century has contributed much to science; and thus, for example, the physical diagnosis of the chest has wonderfully expanded the subject of thoracic disease, and the physiology of the nervous system has developed in the last few years a considerable knowledge of the pathology of the same. It were almost impossible to embrace all subjects in one short course. At one time an inflammation of the brain or a paraplegia was all that held the attention of the lecturer and his class; now, although the subject is still in its infancy, we have to dilate on a variety of nervous affections. These are so highly important that I beg your serious attention to the disorders which I may bring before your notice, and must also insist on this because it is only by a close observance of the symptoms that cases of nerve disease can afford any interest to you. To many students, I know, they constitute the driest and most repulsive forms of malady, and for this reason—that, wishing rightly to store their minds with as many facts as possible, they would rather listen to a discourse where they could note down special facts such as I have to offer you in considering the physical diagnosis of disease of the lung or heart; for then they could carry away something positive in their memories or notebooks, whilst in many of these nervous diseases the symptoms are so various, sometimes so inexplicable or shifting, that they fear that they are never grasping a reality. Look, however, more intimately into these affections, give them a little close attention, and you will find them amongst the most interesting of the disorders you have to treat. But remember this, you cannot ignore them; when you get into practice they will be coming before you daily, and it will require all your acumen to distinguish one form of disease from another, and the appropriate treatment. Look what the last year has shown us in yon electrifying room—that a careful discrimination of cases enables us to recommend one form of galvanism rather than another, and we are delighted to find that cases which we might once have pronounced hopeless are now perfectly cured by a more appropriate treatment.

The cases which we may style nervous are without number—in fact, a very large part of all diseases which are called functional are indeed nervous. You have only to remember that every function of the body is regulated by nerve force, and you will perceive that the study of nervous diseases must embrace affections of every organ and tissue of the body. If this be so, their study must be considered to be still in its infancy. For example, a heart is beating irregularly, palpitating, or its force is being reduced; this, we know positively from experience and experiment, may arise from a nervous influence. But suppose that the heart should altogether cease to beat, and on post-mortem examination the dissector should pronounce it healthy—he means only as regards its muscular tissue and valves; but how about its nerves? Just think of those beautifully dissected hearts at the College of Surgeons, which look more like bundles of thread, so closely are they covered with nerves; and then remember the experiments which you have had shown to you of the movements of the heart when out of the body, as well as of the contraction of its segments which contain the ganglia; you will perceive the importance of the nerve supply to the heart, and the consequence of derangement or disease of its nervous elements. How many cases of dyspepsia, constipation, liver disorders, are due purely to a nervous cause! Think of the sympathetic nerve surrounding the blood-vessels! the vaso-motor nerves, and how they influence necessarily the supply of blood to the tissues, and thus exert a power over the processes of nutrition. Think of those large semilunar ganglia and the solar plexus with their supply to the vessels and viscera, and you cannot but suppose that their influence is all-potent. We get some kind of hint of the importance of these structures when, as we see in Addison's disease, all these nerves matted together and the patient die out from sheer exhaustion, while all the organs of the body are perfectly healthy. In peritonitis and strangulated intestine, also, we perceive a similar prostration. No wonder it has been suggested that in these ganglia lies the *fons et origo mali* known as cholera, since, in a few short minutes, a healthy body may be reduced to almost the condition of a corpse. I have very little doubt that the influence exerted by this solar plexus has much to do with the fact of the frequency of cancer in the neighbourhood of the stomach. Surely, then, we have much to learn about this important centre of our bodily solar system. Considerations of this kind prompt me to the belief that there yet may be a wide field of therapeutics open to us, in which we may employ remedies which may alter the nutritive process through the agency of the vaso-motor nerves.

No doubt such considerations have led to the belief that in the application of heat and cold might at last be found the universal medicine, the dilatation or contraction of the blood-vessels being thought sufficient to rule all other changes, and, these vessels being altered in calibre by the influence of the nerves, a depressant or stimulant to the ganglionic cells would be the means of regulating all nutrient processes. Speaking generally, there can be no doubt of the power for good or for evil of heat and cold. Consider the value of drugs from this point of view. Look at opium, which has so striking an influence on the nervous system, and then go into the Surgical wards and see a large sloughing sore heal under its use; this will give some idea of the value of such classes of remedies, and how nutrition is modified under their use. I am beginning to use aconite more largely than I have hitherto done, seeing no *à priori* objection to much of the power which is attributed to it. I do not see my way to the arrest of a disease which is passing through its several stages, as pneumonia, but I see no objection to the belief in remedies of the opiate class having the power to arrest morbid processes. That aconite is used largely by homœopathists should not allow us to be prejudiced against its adoption. There is a story related of the late Rev. Rowland Hill, to the effect that he once demanded that a hymn should be sung to the tune of a then popular air. On a remonstrance by some of his hearers, he said he did not know why the devil should have all the good tunes. I must leave you to make the application.

See, then, what disease of the nervous system may be one day made to include—nothing less than a consideration of the disturbances which may arise in all the organs and tissues of the body. In the mean time, we hope to do more, especially with the brain and spinal cord. Now, these structures are so complex in their composition, that we learn little by taking each in the mass, as we do the other organs of the body, and then considering their individual diseases. In the lungs, for example, which are uniform throughout, the term pneumonia or pulmonary abscess has a definite meaning, and includes certain definite symptoms; but softening of the brain, or abscess of the brain, cannot be described in so many given terms with so many attendant symptoms. For abscess in one part would be productive of one set of symptoms, and in another part of the brain of another set of symptoms. Effusion of blood shows a totally different class of phenomena as occurring on the surface or centres of the cerebral hemispheres. We must, therefore, of necessity consider the physiology of the nervous system before we pass to its pathology, and you will, I am sure, pardon me in recalling to your remembrance some of the main points which physiology has taught us. By possessing this knowledge we shall be prepared for the occurrence of those symptoms which we are sure morbid changes in certain regions of the brain must produce, and we shall also save much time by the avoidance of their repetition when we come to treat of distinct diseases.

Look, for a moment, at the constitution of an animal body; here is the framework, or skeleton, held together by ligaments, and covered by muscles for the purpose of moving one bone on another. The action of the muscles necessitates wear and tear, and consequently a fresh supply of nutrient material. With this object there is blood sent to them through vessels and propelled by the heart, also other vessels to carry away

the debris ; the latter is got rid of by lung and kidney. For a fresh supply of blood the abdominal organs are required to manufacture it from the food. Since these organs have certain definite functions to perform, they are regulated by nerves called the sympathetic, which convey a power originating in certain bodies styled ganglia. I apprehend that a creature so constituted might exist or live. There is none such, I know, for the very presence of parts I have mentioned would be useless without a higher organisation ; but there are animals of the molluscous kind who seem to have very little higher nervous development than this—an arrangement for the regulation of the internal animal machinery. Now, please remember that what the lower animals possess we have too, and not to forget, because we are superior creatures, that we have just the same machinery at work within us, and also remember, because we have this in common with them, that it is not to be regarded as an inferior portion of our nervous system, but, on the other hand, so much the more important. I shall have to show you that our very existence depends on the integrity of the sympathetic system of nerves, but not necessarily on the brain.

The creature we have contemplated having muscles to be stimulated to action, other nerves are required to proceed to these, originating in their own ganglia, or centres of force. These latter are collected together in a chain constituting the spinal cord. These centres must be stimulated to action for certain purposes, and this is arranged by the existence of other nerves proceeding to them, which have their origin over the whole surface of the integument of the body. Let the surface be touched, a stimulus is conveyed along one of these sensitive nerves to the spinal centres, a reaction takes place, and a corresponding effect is seen on the muscles by an influence conveyed back by the motor nerves.

We have now a higher class of animal, which can be excited to movement by an external stimulus. Now, please remember that we have this system also, the spinal or excito-motor, in common with the lower animals ; and not ignore it because we have still some further development of our nervous centres.

Thirdly, imagine the vertebræ developing into a skull case at the same time that the spinal marrow itself expands and terminates in two large ganglia, known as the central ganglia of the brain—the "head-centres." These are the termini which become subsequently influenced by powers acting upon them, and through them the whole spinal cord ; but whether they possess other properties, I could not, from my own clinical experience, positively declare. It is believed, however, that an animal possessing these bodies has a sensorium, has a kind of perception, and thus, when these are stimulated, evinces what are styled emotions ; that a human being in possession of these structures, without any further cerebral development, might display such emotions as laughing or crying. I think the proof of this is far from satisfactory, but so it is said—that sensori-motor properties reside therein.

Fourthly, suppose, proceeding from these bodies which constitute the upper part of the cord, a number of white fibres towards higher ganglia, and we have still another system. These ganglia in a mass form the cineritious part of the brain, a region where fresh sensations are received, and fresh powers are developed. This is the largest mass of grey nervous substance in the body, and would form a layer as large as this table, were it not folded up so as to be packed in a small compass. Herein the sensations conveyed from the surface of the body, and from the special senses, are changed into perceptions and ideas : the animal has become a reasoning being. The power here produced reacting on the body is styled the will, and the animal has become a voluntary agent. The amount of reasoning power and the strength of volition depend, I have no doubt, upon the development of the cerebral hemispheres—small but not absent in the lower animals, most perfect in such a splendid head as that of the late Surgeon Lawrence or the first Napoleon.

You see, then, that the machinery of the body is worked by the ganglionic nervous forces ; you may witness the fact daily in the wards of the Hospital, in patients whose brains and spinal cords are irretrievably diseased. You see also how many operations of the human body are due to forces residing in the spinal cord ; indeed, if you include the large central ganglia in the cord, all our movements have their origin therein. This cord is again overruled by the large cerebral hemispheres. All these systems are intimately united ; even the sympathetic, which regulates the functions of the viscera, is intimately joined to the spinal, and therefore you might infer that some influence was exerted over the viscera by the spinal cord, and on the other hand you might conceive that some of the operations going on in the organism within might at times be perceived by us. This relationship between the two systems is so important that I shall have to refer to it again.

(To be continued.)

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON INTERMITTENT PULSE AND PALPITATION.

Gentlemen,—In relation to time there are in disease three very distinct variations in the beat of the pulse. There is a beat which may be called an *acute irregularity*, in which each stroke is given in correct order of succession the one to the other, but in series of five, ten, or other number of beats differing in rate from other series ; in cases of very feeble heart we often meet this condition, we meet with it in anæmia, we meet with it after loss of blood or any serious depressing cause. There is a beat which may be called a *prolonged irregularity*, in which the pulse shall during one minute register, say seventy, and if counted through a succeeding minute ninety, or a hundred or more beats. This form of irregularity in relation to time we meet with most distinctively in cases of acute cerebral disease, especially in the hydrocephalus of children. In hydrocephalus, according to my experience, it is a fatal sign ; I have never known an instance of recovery, when, with other acute symptoms pointing to the brain as the seat of the acute disease, this irregularity has been markedly present. Lastly, there is the kind of irregularity which in this short lecture I would dwell upon—the irregularity known to us all, and known to many of the intelligent public, by the term *intermittency*, and connected often by the patient with the further definition *palpitation*. This irregularity consists of an absolute loss of certain of the normal beats of the pulse; it is as though the pulse were clipped out for the moment, the intermittency of stroke occurring during the whole interval of a normal stroke, or in extreme cases covering the time of two, three, or even more natural pulsations. There is probably no symptom more frequently recognised by Medical men than this irregularity of pulse, yet strangely there is no sign which has been less systematically studied in regard to its physical character, its cause, its meaning as an indication of disease, and its treatment. I propose to consider it in regard to these points chiefly.

Physical Character and Cause.

We naturally turn to the heart to tell us what is the reason of the hesitation of the pulse, and so turning we discover readily enough that the gap is due to a break or holding back of the ventricular systole. We listen to the steady *Lŭb, dŭp, pause*, and all goes on correctly a given number of times, when suddenly there is, as it were, a revulsion—I know no better term—and with that the hesitation in the arterial beat. We wait for a return of the phenomenon ; we analyse it carefully, and we read that it is connected with an almost entire absence of the first or long cardiac sound, and with partial loss of the second sound, followed usually by a heavy thud of a returning first sound, and by two sharp and very distinct second sounds. Following the variation from the first, the natural and rhythmical *Lŭb, dŭp, pause* becomes—*dŭp, pause, Lŭb, dŭp, dŭp*, and once more, *Lŭb, dŭp, pause*.

We know by this reading what has happened in the cardiac mechanism ; we know that the left ventricle has for a moment either failed to contract on its contents the blood within it, or it has contracted on itself, no blood having been poured into it from the auricle. Thus, the column of blood which is always left in the arteries waiting for impulse is reduced passively by mere arterial contraction, and the pulse is lost, because there is no wave projected along the artery. Following on the second of the two succeeding diastolic sounds, the pulse returns ; the revived systolic contraction having first resupplied the arteries, it overcomes arterial tension, and reproduces the pulse wave.

It seems difficult at first to account for the two rapid diastolic sounds which follow one upon the other. When, however, we thoughtfully consider the subject, we find the solution of the difficulty comparatively easy, and at the same time we obtain an insight as to the condition of the heart during the period of its abnormal action. The double diastolic sound, the sharp *dŭp*

dúp, is due, I believe, to the circumstance that at the moment of intermittency the left ventricle of the heart alone fails to contract, or contracts uselessly. That this is the case is proved, I think, by three facts:—(*a*) That, with great care in auscultation over the position of the right ventricle, a faint first sound can usually be heard during the intermittency. (*b*) That there is never, during the intermittency, any sign of disorder or discord in the pulmonary respiratory tract. (*c*) That, in connexion with the intermittency, there is no indication of undue fulness or of pulsation in the jugular veins, which must happen if the right ventricle failed to send on its charge of blood to the lungs. Presuming, therefore, that the deficiency of the cardiac stroke is due to the failure of the left ventricle only, the double returning second sound is produced by a separate instead of a simultaneous closing of the pulmonary semilunar, and aortic valves. The pulmonary valves continuing to act in their proper order close twice in the same time that the aortic valves close once, until the simultaneous action is restored. To make this clear, let me write the sounds down in order as proceeding from the two sides of the heart before, during, and after an intermittent act.

	Natural.	Left ventricular intermittency.	Returning long ventricular systole.	Natural.
Right side —	Lūb dúp pause	Lūb dúp pause	Lūb dúp pause	Lūb dúp pause
Left side. —	Lūb dúp pause	0 dúp pause	Lūb dúp	Lūb dúp pause

The intermittency may then, I think, be taken as a failure confined entirely to the action of the left ventricle, and it only remains to inquire, In what does that failure consist? Does the ventricle not contract, or does it contract and find no blood upon which to close? The evidence on this point is very sound; it goes at once to show that the ventricle does not contract; if there were no blood in the ventricle, there must be blood in excess in the pulmonary circuit and in a hugely distended auricle, of which conditions we have no indications whatever. That is the negative side, but there is positive, almost speaking, evidence of what has occurred in the heavy long thud of the systolic sound which proclaims the ventricle again at its work, and which tells that it is contracting on a more than ordinary volume of blood within its cavity. If these evidences, then, be true, the intermittency of the arterial pulse occurs from an independent failure of action of the left ventricle of the heart. The ventricle continues in diastole for two or more strokes of the systole of its auricle, and then relieves itself by a prolonged effort: it is like a man who, striking at the forge a number of strokes in musical succession until tired of the action, changes it for a moment to give a more deliberate and determinate blow, and then rings on again in regular time.

In these explanations we have dealt simply with the immediate cause of the abnormal phenomenon of intermittency of the pulse. Now arises the question, What is its more elementary cause? Let us study this question by the process of exclusion.

We should naturally again begin by looking into the heart itself for a cause. We should now be wrong. The fact alone that during the intervening periods of intermittency the action of the heart is natural, would go far to indicate that in it there can be no great amount of organic lesion. Still this of itself would be little were it unsupported by more direct evidence. Being greatly interested in this matter, I seized once the opportunity of examining after death the heart of an aged man who for many years presented the phenomenon of intermittency more determinately than I ever before had seen: his pulse never, as far as I could learn, failed to intermit less often than once in eight beats. His death was from senile decay, but his circulation may be said to have outlived all the other of his systemic powers. When quite insensible, the pulse, with long hesitations, came up again, and the pulse was beating at the end even when the respiration had ceased. And so after death, instead of a diseased heart, the heart was found the healthiest of the organs. There was no trace of valvular disease. There was no departure from the natural size and condition of the cavities or the thicknesses of the walls; the coronary arteries were normal, and the muscular structure, quite free from fatty and granular degeneracy, was merely, as the tissues are in the aged, a shade paler than is common in the young and robust. Since the occurrence of that case I have confirmed the experience then gained by three other experiences; and I feel bound to say from what I have seen, as positive truth, that the most marked intermittency of the heart may be present without evidence of any known form of organic disease of the organ itself; and as in this case one fact carefully assured is as good as a thousand, I think we may accept that there is no known morbid condition of the heart itself, structurally considered, that produces the phenomenon of intermittent action. Intermittency may coexist, of course, with other signs of cardiac derangement essentially of structural origin; a fatty heart may intermit; a heart with faulty valvular mechanism may intermit; and intermittency with structural change may form, and often does form, a most serious complication. This we must at once allow, but we must allow it feeling that the intermittent action has no necessary connexion with the structural disorder, but is evoked by a cause remote and independent. Pre-existent diseases of a special kind, such as acute rheumatism, do not, so far as I can learn, leave intermittency in their train; neither, as far as I know, is the phenomenon more common in those who have structural disease of the heart than in those who have not.

Intermittency is not peculiar to either sex. Intermittency is not governed by age exclusively. In one instance I noticed it in an infant on the day after his birth, and it continued in him in the most marked degree for five years. It then gradually passed away. A Medical friend once brought me one of his children, a boy five years old, who had the symptoms in the most intense form, so that his parent was seriously alarmed—the boy himself, however, not being conscious of any ailment. In this case also the symptom has disappeared, the boy being now nearly twelve years old. Looking over my notes of cases, I find, in short, that there is no particular age at which I have not met some persons who have intermittency of the pulse. But this must be admitted at the same time, that the symptom is most frequently seen in persons of advanced life; in fact, in very aged people the absence of it is the exception rather than the rule. It is by no means unfrequent in persons of middle age, and it is as common in those who are prematurely as in those who are veritably old. It is least frequent between the ages of ten and thirty.

Intermittency of the pulse is not peculiar to the human species. A neighbour of mine had an old Italian greyhound which presented the phenomenon in the most singularly distinct form. I also had a dog that presented the symptom; this animal was not young, but hearty and disposed to fat and somnolency.

I shall probably assert what many will not agree with when I state that, according to my experience and inference, intermittency of the heart has no relation to what is commonly called dyspepsia. It is true that many dyspeptic persons have intermittent pulse, but this fact does not affect the question, because it is equally true that many persons who have determinate intermittency of pulse have the most keen and excellent digestion. I have a patient at this very time whose case is strictly in point: his pulse intermits every sixteenth beat, but his tongue is clean, his urine natural, his appetite good, his sleep sound, and his bowels regular. After taking food he has no pain, he has no flatulency, and, according to his own often repeated expression, "he does not know that he has a stomach." On the other hand, we constantly see dyspepsia in all its varied and severe forms without the sign of intermittency.

I know of no diseased condition of the blood with which the phenomenon of intermitency is connected. Neither have I been able, after careful research, to trace it, in the light of effect from cause, to any affection of the lung, the liver, the kidney, or other secreting or excreting organ.

Thus we are driven at last to one sole system of the body in which to seek for the origin of the phenomenon of intermittency of the heart; and that is the nervous system. Followed to this seat, all the evidence is too unequivocal to be doubted. The suddenness of the phenomenon, its purely functional character in so far as the heart is implicated, and the other symptoms by which it is attended, leave no room to doubt the correctness of the view that the momentary cessation of the left ventricle occurs from deprivation of the force which it should receive to enable it, under the stimulus of the blood thrown into it by its auricle, to contract and regulate the blood current in its arterial course.

All the evidences, again, point to the fact that, in every case of true intermittency, one particular point or centre of the nervous system is the primary seat of the derangement. The phenomenon is too uniform to admit any explanation less definite; it speaks to us and says there is deficiency of force in the centre of the nervous system which provides for the ventricular

contraction on the left side of the heart, or there is some centre which both governs that supplying centre, and which is over-active.

The derangement might be in the ganglionic centres of the heart itself, but if it were, the nutrition of the organ would surely be more decidedly influenced, and the symptoms would be confined to the heart. The derangement might be from irritation in the periphery or in the line of the great nerve trunks, as the pneumogastric; but if it were, it would hardly be so persistent for years and evolve no other signs of muscular disturbance. Where then is the primary mischief? I believe it to be in the cerebrum. The clinical history of every case I have seen points to that seat. In the aged it is an invariable follower of failing cerebral power; in the very young it presents itself with other indications of cerebral derangement. But that which impresses me most in favour of the cerebral origin of intermittent pulse is the mode in which it appears in the prime of life. I have never met with a case in which it has not been traceable to some form of cerebral excitement with succeeding depression. Grief, imposed by the deaths of relatives and friends; shock from failures of enterprises in business; disappointments; violent outbursts of passion; remorse; degradation; and, most fruitful cause of all in this madly striving age, over-work of brain—these are the outside influences leading to the systemic change on which the phenomenon of intermittency of the pulse most frequently depends.

(*To be continued.*)

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

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Lecture VII.

TURNING CONTINUED: THE POWERS OF NATURE IN DEALING WITH UNFAVOURABLE POSITIONS OF THE CHILD—THE TRUTH OF DENMAN'S ACCOUNT OF SPONTANEOUS EVOLUTION—THE MECHANISM OF HEAD-LABOUR THE TYPE OF THAT OF LABOUR WITH SHOULDER-PRESENTATION.

Gentlemen,—We have now to study—

3. *The powers of Nature, or rather the methods employed by Nature, in dealing with unfavourable positions of the fœtus.*

I will do no more at present than glance at those minor deviations from the natural position in which the long axis of the child's body still maintains its coincidence with the axis of the pelvic brim. With some additional difficulty, Nature is in most of these cases able to effect delivery without materially modifying the position. Forehead and face positions have, indeed, already been described in some detail. Difficult breech positions will be specially considered at a later period of the description of turning.

From the time of Hippocrates, who compared the child in utero to an olive in a narrow-mouthed bottle, it has been known that the child could hardly be born if its long axis lay across the pelvis. But before the time of Denman it was not clearly explained that a correction of the position, or a restitution of the child's long axis to coincidence with the axis of the pelvic brim, could be brought about by the spontaneous operations of Nature. And observations of this most deeply interesting of natural phenomena are so rare that many men, even at the present day, do not hesitate to deny the accuracy of Denman's description. I would, with all deference, suggest for the consideration of these sceptics, whether they do not carry too far their regard for the maxim, "*Nulla jurare in verba magistri.*" In matters of deduction, of theory, that maxim can hardly be too rigorously applied. But to reject as false or impossible matters of fact, observed and recorded by men of signal ability and conscientiousness like Denman, is to push scepticism to an irrational degree. There are subjects, and this is one, which are not questions of opinion, but of evidence. Shall we reject the testimony of Denman? Whose shall we, then, accept in contradiction? Shall it be the testimony of those who deny that Denman saw what he says he saw, because they themselves have never seen it? This is simply to give the preference to negative over positive evidence, to say nothing of the relative weight or authority of the witnesses. There is no man whose experience is so great that nothing is left for him to learn from the experience of others. Let us first call Denman into the box. He says: "In some cases . . . the shoulder is so far advanced into the pelvis, and the action of the uterus is at the same time so strong, that it is impossible to raise or move the child . . . This impossibility of turning the child, had, to the apprehension of writers and practitioners, left the woman without any hope of relief. But in a case of this kind which occurred to me about twenty years ago, I was so fortunate as to observe, though it was not in my power to pass my hand into the uterus . . . that, by the mere effect of the action of the uterus, an evolution took place, and the child was expelled by the breech. . . . The cases in which this has happened are now become so numerous, and supported not only by many examples in my own practice, but established by such unexceptionable authority in the practice of others, that there is no longer any room to doubt of the probability of its happening, more than there is of the most acknowledged fact in midwifery. As to the manner in which this evolution takes place, I presume that, after the long-continued action of the uterus, the body of the child is brought into such a compacted state as to receive the full force of every returning pain. The body in its doubled state being too large to pass through the pelvis, and the uterus pressing upon its inferior extremities, which are the only parts capable of being moved, they are gradually forced lower, making room as they are pressed down for the reception of some other part into the cavity of the uterus which they have evacuated, till the body turning, as it were, upon its own axis, the breech of the child is expelled, as in an original presentation of that part. I believe that a child of the common size, living, or but lately dead, in such a state as to possess some degree of resilition, is the best calculated for expulsion in this manner. Premature or very small children have often been expelled in a doubled state, whatever might be the original presentation; but this is a different case to that we are now describing."

Denman cited in confirmation the evidence of Dr. Garthshore, Consulting-Physician of the British Lying-in Hospital, who related to him a case of the kind, in which the child was living, and the not less trustworthy evidence of Martineau of Norwich. But, before Denman's time, similar cases had been observed, although not understood. Thus Perfect: "The arm presented; and after endeavours were ineffectually made to get at the feet to turn the child, the patient was thereupon left to herself, and delivered, in a few hours, of a live child without any assistance whatever."

D'Outrepont(a) cites Sachtleben, Löffler, Christoph von Siebold, Wilhelm Schmitt, Wiedemann, Vogler, Saccombe, Ficker, Simons, Elias von Siebold, Hagen, Wigand, as all having witnessed self-turning, chiefly, indeed, by the head. He says he himself has frequently witnessed it.

Since Denman's time, evidence has accumulated. Professor Boer, of Vienna, a name in the first rank of the illustrious in Medicine, described, in 1801, a case of arm-presentation, the fingers having been seen at the vulva. He was preparing to turn, when he found the hand higher than when he had examined before. As the pains continued, Boer rested with his hand in the pelvis. The arm distinctly moved up. At this time the whole cavity of the pelvis was filled with the breech of the child. The body and head of a fresh living child were expelled. Velpeau, a man remarkable for the precision of his observations, is equally decided in corroboration.

What observations can be more positive, exact? Who can give evidence more carefully? Who is more worthy of belief? Upon what grounds is evidence so distinct impeached? There are two grounds. In the first place, there is the observation of a fact, of a different method of spontaneous or unaided delivery under arm-presentation from that which Denman described. In the second place, there is the assumption that this different method is the only true one.

Now let us admit the accuracy of the observation, which we may do unreservedly: does it follow that the assumption which excludes the possibility of the occurrence of any other mode of unaided delivery is to be received? Denman, more logical and more philosophical than his opponents, is not so ready to impose limits upon the resources of Nature. He not only observed the "spontaneous evolution" or version of living children, and described this as one resource, but he also observed the "spontaneous expulsion" of dead or

(a) "Abhandlungen und Beiträge." Würzburg, 1822.

premature children by doubling-up, and described this as a second and different resource. Not only, therefore, did Douglas fail to correct or to displace the explanation of Denman, but Denman had actually left nothing for Douglas to discover. In two papers published in the *London Medical Journal* in 1784, Denman relates several cases of spontaneous birth with arm-presentation—some observed by himself, some communicated to him. In these the child was born dead, and the shoulders remained fixed at the pubes. They are clearly described, and certainly anticipate the description given by Dr. Douglas in 1811. But it is fair to add that at this time Denman had not arrived at that sharp distinction which he afterwards drew (1805, see fifth edition "Introduction to Midwifery") between spontaneous version and expulsion.

These are the facts, the evidence. The assumption to which I have referred is further rebutted by abundant collateral testimony. The observation of Denman, so far from being incredible or improbable, is in entire harmony with the phenomena of gestation and labour.

(To be continued.)

ORIGINAL COMMUNICATIONS.

PROPOSAL TO STAMP OUT SMALL-POX, etc.

By Sir JAMES Y. SIMPSON, Bart., M.D., D.C.L.

In despite of the marvellous protective influence of vaccination, the mortality produced by small-pox in Great Britain is still very great and startling. Like other contagious maladies, it varies much in the number of its victims from one year to another; yet during the ten years from 1856 to 1865, small-pox destroyed in this island 51,034 individuals. In one of the last of these years, 1863, not less than 7610 died from it; and in 1864 its amount of mortality reached to 9425.

Such figures, as these numerals denote, scarcely convey to the mind an adequate idea of the deplorable loss of life still resulting among us from the ravages of this one malady,—the more so as the mortality from the disease is distributed through the whole scattered populatie of the island. But—to state it otherwise—if in any one year some overwhelming catastrophe destroyed all the living population of the counties of Nairn or Kinross—or swept away every living inhabitant of the cathedral cities of Lichfield, Ripon, or Wells—or slaughtered four or five regiments of soldiers—or smothered as many as five or six times the number of members of the House of Commons—such an event would assuredly appal and terrify the public and its guardians; and the strongest measures would, no doubt, be called for with the view of preventing the recurrence of the catastrophe, provided its prevention were at all possible. Is the similar amount of human slaughter to which our population is constantly subject by small-pox—not once, but continuously—not one year, but each year—preventible? I believe that it is so; and I believe further, that the hygienic measures required for effecting this prevention would be found neither specially difficult nor expensive to the country, while they would save annually hundreds, if not thousands, of our population from death by a disease which, even when it spares life, too often leaves permanent lesions and a broken and damaged constitution.

To understand the means to which I point, let it be premised that small-pox is—like scarlet fever, measles, and hooping-cough—only a species of disease which, as a general law, attacks once in a lifetime, and is only propagated from an infected individual to a susceptible individual by a specific poison generated in the course of the malady and transmitted from the affected to the healthy—first, by the near approach of the one to the other; secondly, by their contact; thirdly, by direct inoculation; or fourthly, by fomites, or by susceptible individuals being exposed to the virus when it has been imbibed into clothes, etc., with which the sick have been in contact. We would no more expect this known species of disease or poison to originate *de novo* at the present day, under any combination of circumstances, than we would expect a known species of animal or plant—as a dog or a hawthorn—to spring up *de novo*, and without antecedent parentage.

The beneficial influence of Dr. Jenner's immortal discovery saves from death from small-pox in our present population in Great Britain probably about 80,000 lives yearly. As we have already stated, however, there still die from its ravages about 5000 annually. Some among these 5000 have been duly vaccinated, and yet are susceptible of small-pox after cow-pox, just as men formerly were found susceptible of a second attack of small-pox after they had passed through a previous attack of natural or inoculated small-pox. Others seem susceptible in consequence of the vaccination having been performed inadequately with imperfect matter; or without leaving vaccination scars of sufficient quality or quantity. Again, a large class of those that perish from small-pox consists of individuals who have never been vaccinated at all, or who happen to be exposed to the variolous poison antecedent to the age at which vaccination is usually performed. Doubtlessly a stricter enforcement of the new compulsory laws of vaccination, and a greater amount of attention to its proper performance with proper matter, will betimes diminish the number of the susceptible class. Yet, in the meantime, the disease still revels with fatal power among our population; and the question is, can it be arrested in its progress?

The public mind has during the last two or three years become familiarised with the idea of "*stamping out*" a disease, in the instance of rinderpest—a malady apparently spreading in this country, only as small-pox does, by contagion; and every one well knows the perfect success with which this affection has been lately stamped out in England, while it has also, by due care, been prevented spreading to Ireland and the Isle of Man. I believe the same principle of stamping out could be as successfully applied to the extirpation of small-pox among us as it has been applied to the extirpation of rinderpest; but of course with great differences. The rinderpest has been stamped out by killing all the animals labouring under the disease; and in many instances all those animals of the same flock which had been exposed to the contagion of it, but which were not yet attacked by the malady. The mission, however, of the human Physician is ever to save life, never to destroy it. And yet, in accordance with this leading and divine principle, we could, in my opinion, as surely and as swiftly stamp out small-pox as rinderpest has been stamped out. For all that appears necessary for the purpose is simply the methodic temporary seclusion, segregation, or quarantine of those affected with small-pox until they have completely passed through the disease and lost the power of infecting and injuring others. The poleaxe was the chief and leading measure required to stamp out rinderpest. Isolation is the chief and leading measure required to stamp out small-pox.

Various rules and arrangements would be necessary to effect the requisite amount of isolation. Without at all entering into details, let me here observe that the following measures would perhaps form the chief points to be attended to in the way of

Regulations.

1st. The earliest possible notification of the disease after it has once broken out upon any individual or individuals.

2nd. The seclusion, at home or in hospital, of those affected, during the whole progress of the disease, as well as during the convalescence from it, or until all power of infecting others is past.

3rd. The surrounding of the sick with nurses and attendants who are themselves non-conductors or incapable of being affected, inasmuch as they are known to be protected against the disease by having already passed through cow-pox or small-pox.

4th. The due purification, during and after the disease, by water, chlorine, carbolic acid, sulphurous acid, etc., of the rooms, beds, clothes, etc., used by the sick and their attendants, and the disinfection of their own persons.

Here, as elsewhere, to obtain a great public good, some private or individual inconvenience must for the time be undergone by those who unfortunately become the subjects of the disease. But since first publicly speaking of the stamping out of small-pox, I find that in 1867 the Legislature has passed the "Public Health Act" of Scotland, a most excellent measure,(a) which gives some of the leading powers required to enforce a series of regulations like the preceding. The Sanitary Act of 1866 for England and Ireland tends in the same direction, but is not so comprehensive. For the "general prevention and mitigation" of infectious diseases, and other purposes, the Scottish Act has erected a number of local boards everywhere throughout Scotland, consisting, according to circumstances, of the town councils, of the police commissioners, or of the parochial boards. These "Local

(a) The Public Health Act for Scotland has lately been published by the Messrs. Blackwood, with notes by Sheriff Mair

authorities" are each entrusted with the power of appointing sanitary inspectors and Medical officers under them, and are themselves so far under the central control and advice of the "board of supervision." They are bound to provide district Hospitals or temporary places for the reception of the sick; to remove to them, by suitable carriages, any person suffering from contagious or infectious disorders; in case of need to direct not the sick to be removed, but to remove all other unaffected persons surrounding them, providing suitable accommodation for these unaffected elsewhere; and to have in each district all necessary apparatus and attendants for the disinfection of woollen and other articles, clothing or bedding, which may have become dangerous from contact with diseased individuals. Such powers are of the highest importance for the protection of the general community against small-pox and other such infectious diseases among the poorer classes of the population; but regulations in the same spirit would equally benefit the highest and richest in the land, both individually and collectively, and the sick as well as the uninfected; the necessary amount of isolation of the sick being allowed to all who wished it and could afford it to be effected at their own homes.

The Legislature has no scruple in interfering in some other diseases to as great or indeed to a greater extent. It enforces, for instance, the isolation of any individual affected with insanity, be he rich or poor, who is a homicidal lunatic, endangering the lives of others. If, by a law which no one thinks harsh or severe, lunatics are prevented from destroying the lives of their fellowmen, why should it be thought harsh or severe that people affected with small-pox should be prevented from dealing out destruction and death to all the susceptible with whom they happen to come in contact? Homicidal lunatics do not destroy annually in Great Britain above eight or ten, on an average, of their fellowmen. Small-pox patients yearly destroy, on the contrary, hundreds instead of units of their fellowmen in this island. Sixty years ago, when speaking in the House of Commons of the gross iniquity of inoculating with small-pox the out-patients of a London Hospital and then allowing these inoculated persons to infect others with the disease, Mr. Sturges Bourne strongly but truly remarked:—"I think that the Legislature would be as much justified in taking a measure to prevent this evil by restraint as a man would be in snatching a firebrand out of the hands of a maniac just as he was going to set fire to a city." A rattle-snake or a tiger escaping from a travelling menagerie into a school full of children would, in all probability, not wound and kill nearly so many of these children as would a boy or girl coming among them affected with, or still imperfectly recovered from, small-pox, or scarlet fever, or measles, or hooping-cough. Most properly the cobra and the tiger—because they are *always* dangerous—are always, as far as possible, prohibited from making such visitations; and the infected boy or girl should be prohibited also, *during the time* that they are running through the course and convalescence of such contagious diseases, or while they exhale from their bodies a virus of dangerous and deadly potency.

The great object of preventing the diffusion of small-pox in any city, or village, or hamlet, by the stamping-out measures which I have ventured to suggest in this communication, would consist, of course, chiefly, when practicable, in isolating the very first cases. Some time ago, a Professional friend to whom I was explaining these views objected to them, that in the case of the town of Leith, which was the habitat of small-pox in 1861 and 1862, the disease was at one time too diffused to apply them. Dr. Paterson, of Leith, however, has kindly informed me that at the time of the visitation of the malady he made an official inquiry into its origin, and found it to be this:—A beggar-woman, on tramp from Newcastle, brought, in the course of her wanderings to Leith, a child lately affected with small-pox, and with the crusts of the eruption upon it. In Leith she became an inmate of a lodging-house in a "land" or block of buildings full of lodgings for the poorest of the poor. Many of the lodgers in these other houses, with their children, visited the room where the woman and the sick child resided. By the time Dr. Paterson was requested by the magistrates to inspect the tenement, several persons were already dead of small-pox caught from this imported case. One man, who had already in previous life suffered from two attacks of small-pox, visited the infected tenement, and sickened and died [illegible] of the malady. The disease soon spread [illegible] of that town, ninety-nine human beings were destroyed by it, and much suffering and sickness produced among the many hundreds in the town who caught the disorder and recovered. But if that first case or cases had been obliged to be reported on at once, and had been forthwith isolated in the Hospital or elsewhere, all this unnecessary amount of human mortality and disease would have been avoided; nor would the isolation and maintenance of the first case, or of the first ten or twenty cases, have cost as much money as the purchase of the coffins for the ninety-nine who died. The blowing-up of the powder magazine in the fort at Leith would not likely produce nearly so much danger and destruction of life among the inhabitants of Leith as the advent of the beggar woman and her infected child. Yet how carefully do we guard against the one danger, and how carelessly do we treat the other!

In 1818-19 above 3000 individuals were attacked with small-pox in Norwich, or about a thirteenth part of the whole population of that city. Of those attacked, 530 died. The disease was originally introduced into the town, according to Mr. Cross, by a girl who, in travelling with her parents from York to Norwich, was exposed to small-pox at a market town in the course of her journey; and the malady appeared on her as soon as she arrived in Norwich. This was in June, 1818. In January, 1819, a druggist gave a new impulse to the contagion by inoculating three children with the small-pox. The disease destroyed in Norwich, according to Mr. Cross, more human life in the same space of time than had ever taken place from any other cause than the plague. The isolation of the girl first affected, and the prevention of the artificial inoculation of the three children by the druggist would have prevented all this frightful mortality. To inoculate any one now-a-days artificially with small-pox—as the druggist did—has for many years been established by act of parliament as a crime, inasmuch as it tends to imperil the destruction and death of others. Should it not be equally regarded as a crime for a community to allow of a case in their midst (such as that of the girl first affected at Norwich) to remain in circumstances allowing of the deliberate and unchecked spread and dissemination of the disease from her to others?

My friend, Dr. Stark, who takes such diligent superintendence of the death registration in Scotland, tells me that constantly—as in these cases at Leith and Norwich—he hears, through his official returns, of small-pox spreading in districts here and there from one imported central case.

(To be continued.)

CONCERNING THE "GROWTH" OF THE KIDNEY.

By Dr. LIONEL S. BEALE, F.R.S.,

Physician to King's College Hospital, and Professor of Physiology and of General and Morbid Anatomy in King's College, London.

The *essential* structures in the fully formed kidney seem to be these—vessels for conveying the blood—nerve fibres which govern the calibre of the vessels and thus determine the rate of flow of the blood from the arteries into the capillaries—and epithelial cells which are arranged round the tubes so as to leave a channel by which the materials separated or formed by them may be readily carried away in solution in water.

It is probable that these are the only anatomical elements which exist when the renal apparatus first *begins to perform its active functions*, and the only ones which constitute the simplest form of kidney. But as the growth of the body proceeds, the demand for a more extensive renal apparatus arises, and, as in the case of other organs in vertebrata, the increase must be gradual, *and must take place whilst the organ is actively discharging its functions.* The *growth* of the kidney necessitates a change in the relative position of the individual nerve fibres, vessels, and secreting structure in different parts of the gland, and the progressive development of new elements as extensions from those already existing. The successive changes are not easily traced with accuracy, and it is very difficult to convey in words a clear idea of the phenomena which succeed and as it were overlap one another. A separate memoir, well illustrated, might with advantage be devoted to the consideration of this interesting and highly important subject; but its bearing upon the nature of disease is so obvious, that no apology is needed for alluding to it.

At an early period of development the secreting cells multiply and become arranged so as to form a hollow tube. By their division and subdivision the tube increases in length and [illegible] at least during a certain period, in every part of its extent. At the deep or external portion of these

cells, adjacent to the vessels, matter is slowly deposited in an insoluble form, and thus a thin membranous boundary corresponding to the outer limit of the tube results, and this becomes extended as the cells grow, while at the same time it is increased in strength by the addition of new matter. Between the lines of masses of germinal matter from which the tubes are developed, and those which take part in the formation of vessels and nerves are a few masses which are not concerned in the formation of any definite structure, but which perhaps take part in the production of a small quantity of intervening substance. The membrane becomes further modified by its relation to the nerves and blood-vessels. These were very close to the cells at the earliest periods of development, and a very close relationship between them must be maintained throughout life—or the free action of the gland would be interfered with. Moreover, as the gland which already actively performs its functions grows, new nerve fibres and new capillaries must be developed around the uriniferous tubes. The position which a capillary or an ultimate nerve fibre occupies at an early period will at a later time be the situation where a bundle of nerve fibres, or small arteries and veins, must be placed. The structural changes involved in all these alterations are considerable. Old capillaries and nerve fibres must be removed as new ones are developed to take their place, and all the original gland cells will have disappeared probably long before the uriniferous tubes have acquired their fully formed characters. But *these structural elements are not completely removed.* There will remain a small quantity of matter which cannot be taken up by the ordinary processes at work. This is no doubt capable of being removed like every texture in the body, but complete removal would probably involve the destruction of the gland, while its almost complete removal permits the continuous development of the latter and does not interfere with its continuous action. The conditions of existence in the case of man and the higher vertebrata, with a few unimportant exceptions only, permit the very gradual but not absolutely complete removal of tissues and their renovation.

In insects the state of things is very different, for in their textures there is an almost complete absence of connective tissue. The organs and tissues of the larva are entirely removed while new organs and textures of the imago or perfect insect are laid down afresh and developed *ab initio*, instead of being built up upon those first formed. Such complete change, however, necessitates a state of existence during which *action* or *function* remains in complete abeyance. In the pupa or chrysalis period of life, functional activity is reduced to a minimum, and nothing is allowed to interfere with the developmental and formative processes. The new and more perfect being which is evolved does not probably retain a trace of the structure of its earlier and less perfect state. Although the elements of matter in the imago are, of course, those of which the larva and pupa were composed, they have been as completely re-arranged as they would have been had they been introduced into the organism of another individual altogether. Not only have the old tissues been utterly destroyed and new ones produced, but in many instances these new ones belong to a totally different type; and were it not that observation has taught us that they have been really evolved at different periods during the life of one and the selfsame individual being, we should have concluded not only that they belonged to different species, but in many cases to species far removed from one another.

In vertebrata, however, there is not an organ in the adult but retains not only the form which it assumed at a comparatively early period, but some of the very same structure that was active in early life remains in an altered and deteriorated state. Every adult organ may be said to contain as it were the imperfect skeletons of organs which were active at an earlier period of life. This material, which slowly accumulates, clogs and perhaps, even in the most perfect state of things, slightly interferes with the free activity of the organ. If from any interference with the changes this unabsorbed debris accumulates in undue proportion, the action of the organ may be very seriously impaired. It indeed soon grows old, while all the rest of the body may remain young. Its imperfect action deranges other processes of the body, and these react upon it until further action becomes impossible, and death results. The gradual but continuous and regular decay and renovation of an organ is normal in the vertebrate animal. The changes exhibit wonderful elasticity within certain limits, according to the demand for functional activity of the organ, but these limits, narrow in some, wide in others, cannot be exceeded without derangement and slow deterioration resulting.

This continuous renovation of an organ and accumulation of the skeleton of its earlier periods of existence may, however, be almost suddenly interrupted. *In those changes which lead to the formation of pus the removal of every texture is as perfect as during the pupa state of the insect*, but the germinal matter constituting the pus corpuscles has no power to give rise to that which will take part in the development of new tissues, while that taking part in the removal of the larval tissues during the pupa state does possess this power, so that when in vertebrata this complete change occurs the organ is destroyed, and a new one is never developed in its stead. A part of a complex organ may be destroyed and removed, but it cannot be formed anew; so that in man the gradual or sudden destruction of a great part of an organ necessary to life cannot be repaired, although in many cases the patient may adapt himself to the altered state of things and live under the changed conditions. The above considerations afford, I think, an explanation of the formation of the so-called interstitial indefinite connective tissue found not only in the kidney, but in all organs of all vertebrate animals, and of its increase as age advances. The more regularly, gradually, and perfectly the changes are effected, the smaller will be the proportion formed, and the more slowly will it accumulate. When this is the state of things in all the organs of the body, health and longevity result. The opposite entails disease and too early death.

ON THE

ARTIFICIAL PRODUCTION OF CERTAIN ORGANIC FORMS, AND THE MANNER IN WHICH THEY ARE PRODUCED.

By GEORGE RAINEY, M.R.C.S.,

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The object of this communication is briefly to describe the processes by which certain organic forms can be produced artificially; to demonstrate the physical and chemical conditions under which their formation takes place; and to consider how far these same conditions may be regarded as present alike in the natural and in the artificial processes. And at the present time I believe no subject is of greater importance, from its bearing upon the fundamental processes of the vegetable and animal economy, and upon the views hitherto accepted of the physiology and developmental anatomy of tissues generally. The following is a most simple process for obtaining globules:—I take a thick solution of the ordinary pale gum, such as is sold by druggists, and mix with it a strong solution of another gum of a peculiar character, only obtained from the wholesale dealers. This is of a bright reddish colour, generally rough on the surface, but very clear in the interior. It is at first remarkably soluble, but after being dissolved two or three times in water it has a tendency to gelatinise. Some of this mixture of these two kinds of gum is to be put into a closed cell; and, on being examined under the microscope, the red gum will be seen, after passing through a variety of forms, to go into permanent globules. If the mixture of these kinds of gum, after being evaporated to dryness, be redissolved in a small quantity of water, globules will be reproduced in the solution as at the first. (See Fig. 1.)

Fig. 1.

The appearances exhibited by the red gum during its passage into perfectly globular shapes seem to indicate a difference in the qualities of the gums when in solution, not unlike that which exists between oil and water, the one appearing to exert a repellent influence on the other; and thus the ultimate particles of the red gum, which is evidently the more tenacious of the two, becoming more completely under the influence of the mutual attractions exerted between themselves, are brought into spherical forms.(a)

(a) Should any person wishing to test this experiment be prevented by not being able at once to obtain the right kind of gum, I shall be happy to supply him with a quantity which would be sufficient for the purpose.

Now, indeed, in these effects that this kind of gum is more allied to dextrine than to true gum. I made the following experiments. Impregnated solutions of filtered juice of the leaves of the loose-leaf *Sedum Telephium* and that of other plants were severally mixed with very thick mucilage of white gum and examined as above described, when, in the majority of cases, the inspissated juice was seen to pass into the same forms, and ultimately into globules, just as when the red gum was mixed with the pale gum.

These experiments were afterwards performed upon dextrine which had been prepared artificially, both when mixed with the mucilage of white gum and with that of red gum, with the same results, but the effect was most striking in the case where the white gum mucilage was used the medium.

Fig. 2.

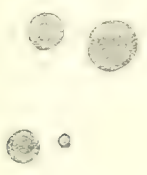
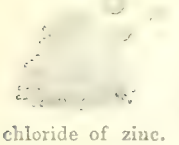


Fig. 2. The artificial dextrine used in these experiments was obtained by mixing nitric acid and common arrowroot together in such proportions as to form a thin paste, which being left for some days passed into a state of liquid sufficiently thin to allow of being filtered. The filtered fluid, formed at an early part of the process, contains a large preparation of starch mixed with the dextrine, but after some weeks all the starch disappears, and nothing but dextrine is left. The complete disappearance of the starch is indicated by the formation of nitrous acid gas. The dextrine can be separated from the acid by alcohol, and it was dextrine thus prepared and separated which was employed in the above experiments.

If a small portion of the filtered solution obtained shortly after the starch and acid have been mixed together, when a large proportion of starch is mixed with the dextrine, be mixed with thick mucilage, it will be seen to pass into globules of various sizes. These globules are very sparingly soluble in water. Their interiors are more granular, and do not contain so many or so large vacuoles as those composed entirely of dextrine. They are instantly coloured blue by iodine. For a representation of these, see Fig. 3. A similar

Fig. 3.



mixture of starch and dextrine can be obtained by mixing arrowroot with a perfectly saturated solution of chloride of zinc. This solution is not altered by being kept, and it is acted upon by gum precisely in the same manner as the mixture of starch and dextrine last mentioned. Starch can be formed by mixing cotton-wool with a saturated solution of chloride of zinc. The solution in this process is expedited by gentle heat. In this solution, mixed with white or red gum, I have not been able to see decidedly globular forms as in the preceding experiment, arising most probably from an absence of dextrine. It is scarcely necessary to say that the starch-bodies formed by any of these processes is not affected, nor does it polarise light—the spherical form in these instances being due to the tenacity of the dextrine associated with the starch, and to its immiscibility with the fluid medium in which the globules are formed.

(*To be continued.*)

NEURITIS.

By J. FAYRER, M.D., F.R.S.E.,

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On April 27, 1867, I was asked by a Medical friend to see a native gentleman, named Gopal Ch., who had been suffering severely for the past three months from a painful affection of the left leg, which had resisted his skill. He informed me that about three months ago he had been salivated for a venereal affection, and almost immediately afterwards the pain in the leg began to supervene. During this period he has had [illegible] which have reduced him very much. He is unable to walk without [illegible] and suffers much pain. On examination, I found [illegible] The [illegible] nerve in the gluteal region, and especially at one point, where I thought, after long and careful examination, that I could detect deep-seated fluctuation, with fulness and induration in the course of the nerve. There was also some tenderness on pressing deeply in the iliac region. It occurred to me that there had been inflammation in, and that the symptoms were due to effusion into, the sheath of the nerve. It is to be observed that he had been previously a healthy man, and not subject to sciatica or rheumatism. I made a puncture with a long narrow knife down to this indurated part, and gave exit to more than half an ounce of clear serum. The removal of tension caused by the fluid was followed by immediate and almost perfect relief. I did not see him again, but on the 10th of the following month I heard from the Medical man who had consulted me as follows:—

"Dear Sir,—The patient was so much relieved by the puncture that he could get up from his bed and walk about the room. He left Calcutta for his home two days after we saw him. Yesterday I have been informed that he is doing well there. "Yours truly, * * * *."

On May 30, I was informed that the patient was quite well and free from lameness.

Remarks.—This is the only case of the kind that I have met with, but I should more carefully look for this effusion within the sheath of the nerve, in future cases of sciatica that may come under my observation. It is possible that this may have been due to the attack of syphilis, or to the mercury which he took to salivation for its cure. But as there was no other evidence of constitutional syphilis, and as iodide of potassium had no effect on the disease, I am inclined to think it was not traceable to this specific origin, but that it was the result of simple inflammation of the neurilemma. The relief afforded by the incision was very great, and, from the accounts I have since received, it has been permanent. The pathology of this affection is interesting, and though the case is a minor one, I have thought it worth recording.

UNUSUAL EFFECT OF SUBCUTANEOUS INJECTION.

By F. WOODHOUSE BRAINE, F.R.C.S., etc.

Mrs. H. C., aged 35, in good health otherwise, had been kept awake for seventy-two hours by intense neuralgic pain on left side of head, face, and neck, arising from a carious molar tooth on left side of lower jaw. She was injected with morph. acet. ½ gr. At 1 a.m. on June 28 last, the morphia, dissolved in about four drops of water, was introduced under the skin of the left arm, just over the insertion of the deltoid. No blood appeared at the puncture. In about fifteen seconds tightness of the chest and difficulty in breathing was complained of, and the patient asked to be raised, saying she felt as if she were dying. Her face and lips now became pale; speech became indistinct (not inaudible); pulse irregular; some spasm of the facial muscles took place, and she fell back to all appearance dead. Cold water was freely dashed over face and chest, and, as she was unable to swallow, her tongue was rubbed over with sal volatile, and ammonia applied to her nose, artificial respiration being kept up at the same time. During this time her face was blanched, pulse not to be felt, and respiration not to be perceived. Insensibility continued for about three minutes; then, happily, one or two feeble beats of the pulse, and a shallow inspiration or two, showed returning animation. She then became conscious; pulse feeble, but regular; respiration slow; fingers remained numbed, and both thumbs were firmly drawn into the palms of the hands. This passed off in about six minutes, leaving her feeling very ill, but free from the neuralgic pain, which did not return. There was no feeling of nausea and no attempt at vomiting during any part of the time.

2, Hertford-street, W.

UNIVERSITY INTELLIGENCE, OXFORD.—MERTON COLLEGE.—Mr. Thomas H. G. Wyndham, B.A., of Oriel College, was, on December 21, elected to the open Natural Science Fellowship. Mr. Wyndham was placed in the first class in the Natural Science Schools, term 1866, and in Lent term, 1867, obtained the Burdett-Coutts Geological Scholarship. There were six candidates.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

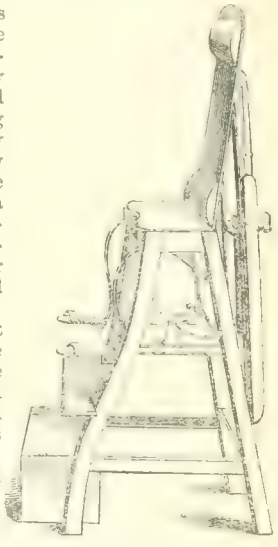
THE LOCK HOSPITAL.

Since we last reported on the practice of the Lock Hospital important changes have been effected in its two branches, especially in that at Westbourne; and at the time when the event took place we duly notified the opening of the new wards there by his Royal Highness the Duke of Cambridge. This great addition to the number of beds necessitated the election of an additional Surgeon, and Mr. Berkeley Hill was chosen. No better selection could have been made; for the way in which he works the department under his care (that of the female out-patients) is most admirable. The whole of the new wing and half the old building are occupied by Government patients from Woolwich, Chatham, and Aldershot, 100 beds being retained for the purpose, and the increased care requisite on the part of the authorities has led to the appointment of Mr. Barr as salaried House-Surgeon. The assiduity and care with which this gentleman performs his very laborious duty, and the tact and temper with which he preserves order and discipline in a very troublesome class of patients, cannot be too highly commended. But with these changes we have not so much to do as with the practice now to be seen at Westbourne and at Dean-street, and to these, therefore, we now address ourselves.

It not unfrequently happens that a woman is accused of having infected a man with gonorrhœa, when she herself is perfectly ignorant of having anything the matter with her; under such circumstances, there being no outward discharge, it becomes necessary to make a most careful examination by means of the speculum, and this seldom fails to indicate the source of mischief, most frequently in discharge from, or ulceration of, the os or cervix uteri. Indeed, it may be premised at this stage that a case of acute vaginitis is almost unknown either among the out-patients or among the in-patients. The fact just alluded to has necessitated a certain change in the mode of practice from that formerly employed when the cases were of a more virulent description. Now-a-days, in fact, a few days' rest in Hospital frequently leads to a perfect cure; and as this stay in Hospital is compulsory, women that would formerly have probably gone on infecting men, themselves going from bad to worse, are summarily arrested in their career and kept until they are perfectly safe. But even when the cases are not so extremely simple, the fact of the discharge having an origin so strictly localised necessitates a more direct application of the remedies than that formerly in vogue. As before, syringes are employed, but rather for the sake of cleanliness than for any particular good the remedy so introduced will do in the case of *uterine* discharges—this, of course, with regard to in-patients, for each of these is, as a rule, examined three times a week by the speculum, and the appropriate remedy used. This, with out-patients, is of course impossible, and accordingly more reliance must be placed on the use of injections by them, although the other plan of applying remedies is not neglected. But to proceed to the nature of the applications used. When the os uteri in many—in fact we might say in most—women labouring under secondary syphilis is examined, there will be found more or less of a glairy or semipurulent discharge exuding from it; frequently also ulceration will be observed. This ulceration Mr. J. Lane holds to be in some instances of the same nature as the superficial ulcerations so common on the tonsils and palate, truly syphilitic and capable of communicating infection; it is to be treated, therefore, in the same way, generally and locally, as syphilitic sores of the same kind elsewhere.

But besides these well-marked and undoubtedly syphilitic cases, there are numerous instances of discharges coming from the os and cervix, and possibly even from the fundus uteri. What is to be done with these? Whenever there is ulceration the rule is to apply nitrate of silver; but if this comes in contact with the discharge it is immediately decomposed, and probably never reaches the surface to which it is desirable to apply it. In this case, where the patient can be frequently examined, it is the practice at the Lock to consolidate the discharge by means of tannin or alum, when it can be readily removed, and then to apply to the cleaned surface a bit of cotton wool dipped in a strong solution of nitrate of silver. Mr. Berkeley Hill has not the opportunity of making such frequent examinations; he accordingly makes use of various substances, as tannin, alum, the oxide and the sulphate of zinc, etc., tied up in small bundles of cotton wool, which are applied to the os. A string is tied round this bundle, so that it may be removed when the proper period (twelve, twenty-four, or forty-eight hours) after introduction has elapsed. Iodised cotton is also used by Mr. Hill in the same way. Both plans are attended with marked success.

One most important means of increasing the facilities for this mode of treatment has been introduced by Mr. Berkeley Hill in the shape of a chair for examination by the speculum. It is frequently difficult to induce a patient to submit to an examination on a couch, but this chair does away with that as well as other obstacles. The nature of its form and construction will be more readily understood from the subjoined illustration than from a long verbal description. It is only requisite to turn the screw behind the chair to change the attitude from an upright to a reclining one, in the best position for the use of the speculum. A movable gas or other lamp with a reflector behind adds greatly to its utility.



But, turning to a subject at once more difficult and more interesting, let us try to give the views of the gentlemen attached to this institution with regard to syphilis in its primary, secondary, and tertiary stages. Not that we can pretend to give them with that fulness and exactness they themselves could; still we may be able to indicate some points, both in theory and practice, which may be useful to our Professional brethren who have fewer opportunities of studying the march of this dreadful disorder. In the first place, then, all are decidedly in favour of employing mercury at certain stages of the malady, and to designate these shall be our chief concern.

With the exception of those who deny the existence of a specific syphilitic virus, there are few now-a-days who deny the existence of at least two forms of venereal sores, what are commonly termed hard and soft chancres. The latter are for the most part self-limiting, have a tendency to get well without treatment, are sometimes accompanied by glandular complications, often ending in the formation of suppurating buboes, which, as well as the original sore, are capable of self-inoculation. The hard sore, again, occurs but once, as a rule, in a man's lifetime, is more chronic in its character, is accompanied by multiple glandular enlargement which does not tend to suppurate, is not usually capable of self-inoculation except when irritated so as to produce pus, and gives rise to constitutional effects which the other rarely does. Hardness is to be looked upon as the most important characteristic of a true infecting chancre, but this may be simulated by inflammatory thickening accidentally set up round a soft sore, and especially by the application to it of caustics or other irritant substances. We have thus practically three varieties of sore to deal with, so far as treatment is concerned—*i.e.*, the hard, the soft, and the doubtful sore. With regard to simple non-indurated sores, and also those in which the induration appears to be inflammatory or accidental, no one would give mercury or iodide of potassium, but would deal with them as a strictly local affection. When, on the other hand, the sore is unmistakably a hard one, most men are in favour of giving mercury, believing that it promotes the absorption of the induration and the healing of the primary sore, and that it prevents, in many cases, the occurrence of secondary symptoms. Others believe that its effect is merely to postpone, but not to prevent, the constitutional manifestations, and, therefore, prefer to withhold the remedy until these latter make their appearance. The doubtful class of sores would, we think, by all be treated as a local affection until the appearance of secondary symptoms rendered its character unmistakable. For, as one Surgeon says, what is the good of treating

what may never make its appearance? Messrs. J. Lane and Gascoyen do not believe that there are two kinds of venereal poison, but consider that both the hard and the soft sore are produced by modifications in the action of one virus. Neither do they admit the existence of the mixed chancre, as described by the modern French school; but they believe that a sore originally soft may become indurated at any period of its progress, and that this is not unfrequently the case. In fact, Mr. Gascoyen would say that the induration was the first of the secondary manifestions—in fact, a "secondary symptom." Occasionally we encounter sores which have a tendency to spread somewhat like a serpiginous eruption, sometimes also partly by sloughing, partly by phagedænic action. These, it may be at once stated, are accidental complications, most frequently superadded to the occurrence of soft sores, sometimes also, however, in connexion with the true hard chancre; if so, they are not to be treated with mercury, which would only have the effect of increasing the rapidity of the disintegrative action. They appear to depend in many instances on peculiarity of constitution, which also seems in the case of true chancres to greatly exacerbate the general symptoms. There are bad attacks, and there are slight attacks of syphilis, and one can scarcely recognise as the products of the same disease the fearful effects of syphilis introduced into the system of the intemperate European, weakened by long residence in tropical countries, and the slight erythematous rash which is not unfrequently the only mark of constitutional syphilis seen in this country.

But to turn to the constitutional effects of syphilis. We find now-a-days, as was done long ago, the secondary or superficial affections ordinarily occurring within six or eight weeks of the appearance of a sore, certain of them being distinctly infectious, and capable of being transmitted from parent to offspring, but ordinarily amenable to the influence of mercury. Tertiary symptoms, again, do not appear before the sixth month; implicate the deeper structures; are incapable of infection, and not, as a rule, transmissible as such from parent to offspring; are often prejudiced by the use of mercury, but are greatly improved by the exhibition of iodide of potassium, especially in large doses.

All the Surgeons to the Lock Hospital use mercury; but let us see how. Some of them, as Mr. Hill, employ it as calomel with magnesia, in powder, for an application to sores or mucous tubercles; others, as Messrs. Lane and Gascoyen, in the form of black wash—bichloride lotion, or calomel in powder. They give it also internally for the relief of secondary symptoms, most frequently in the shape of blue pill. Syphilis is a disease which runs a definite course, and mercury may enable the patient to get over the different stages more rapidly than if it had not been exhibited; but such cases cannot be said to have been cured by mercury; for the disease which in one stops at a slight erythema may in another go through its whole course to destruction of the bones of the head and gummy deposits in every internal organ. The question, then, comes to be—What are the lesions which had best be treated by mercury, and which by other means? It must be borne in mind that mercury is a spoliative remedy, and that, while hastening the evolution of the disease, it takes from the vigour of the constitution. An instance occurring in Mr. J. Lane's practice well illustrates two classes of cases. Two young men contracted syphilis about the same time; the one was strong and hardy, the other delicate and of a consumptive family. The secondary eruption was about the same degree of intensity in both; but the strong man could bear a course of mercury, the weak one could not. The one patient with mercury soon completely recovered; the other by means of tonics ultimately got perfectly well also, but after a longer period than the other. But mercurial treatment does not suit well with all secondary eruptions, and it is of importance to know when best to give it with advantage. To this end it is necessary to inquire into the various kinds of eruption. The first and most common is erythematous—syphilitic roseola—it may be treated with or without mercury, but, other things being equal, the patient recovers far sooner with it. The squamous form of eruption, or psoriasis, and the papular or lichen, are also very common, and ought in like manner to be treated with mercury; so also the early forms, whether primary or following on the disappearance of either of the former varieties; psoriasis, however, when on the hands and on the feet, is frequently a very obstinate affection. The vesicular eruptions, eczematous or herpetic, are much more rare, and constitute a debatable land; some say give mercury, others say do not. Probably here, as is most certainly the case with the rupial and ecthymatous eruptions, a solution of the scarlet iodide of mercury in iodide of potassium would be the best means of cure. The tubercular eruption is very often, as are some of the other lesions, accompanied with enlargement of the glands at the back of the neck and scabs in the hair; here also the Medical officers of the Lock Hospital ordinarily recommend mercury, although some prefer the iodide of potassium. One word as to the complications of these lesions. The earlier ones—as, for instance, the papular and squamous eruptions—are frequently accompanied by iritis (here also mercury should be given); the later ones, especially rupia, are associated with syphilitic testicle, gummy tumours, and pains in the bones. Iodide of potassium, in doses rapidly increased to fifteen or twenty grains, should now be given.

We next speak of one peculiar form of affection indicative of secondary syphilis—we mean mucous tubercles—and we have finished. These are most frequently found in the vulva and around the anus, but not unfrequently occur in the mouth; they are the most infectious of all secondary manifestations, but less so than primary sores. If it be possible to treat them locally, it should be done. The slighter cases generally yield to such treatment; and, therefore, if no other secondary affections are present, it is not generally thought necessary to give mercury internally. Tartrate of iron, calomel in powder, or black wash are the usual applications; the former is said to dry up the discharge most speedily, but the mercurial applications are, on the whole, to be preferred.

We have tried to give the results of the experience of Messrs. Lane, Gascoyen, Coulson, Shillitoe, and Hill, thus cursorily, and, to a certain extent, incompletely, but it is with a hope that what has been said as to the use of mercury may be useful to men who have not opportunities of seeing practice as they have.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr SPENCER WELLS.)

(*Continued from page* 120, *Vol. II for* 1867.)

We continue the publication of Mr. Wells's *Hospital* cases of ovariotomy in the order of their performance. At the operation last week he stated that the total number of his cases in private and Hospital practice amounted to 244. In the first 100 cases, 66 patients recovered; in the second 100, 72 recovered; and of the 44 cases since, only 6 have died. For the past eight weeks there has been an ovariotomy every Wednesday at this Hospital, and all the patients have done, or are doing, well.

Case 94.—*Multilocular Cyst—Tapping Eighteen Hours before Ovariotomy—Recovery.*

An unmarried housekeeper from Egham was sent to Mr. Wells by Mr. Hodgson, and was admitted June 29, 1867. A large cyst filled the upper part of the abdomen, the part below the umbilicus containing semi-solid matter. The uterus was high, but freely movable. There was much cough and expectoration; percussion was dull below the fifth rib on both sides, small rhonchi and crepitation being audible in the compressed portions of the lungs.

Illness had commenced two years before admission by violent pain in the left groin. After a few months there were dysmenorrhœal pains, followed by a good deal of hæmorrhage; but no increase in size was noticed until after the catamenia ceased eight months ago. Then the body enlarged, and for the last two months increase had been very rapid.

Mr. Wells, being anxious to relieve the pulmonary congestion before giving chloroform, while unwilling to risk any ill-effects from tapping, decided to tap a few hours before the time fixed for ovariotomy. Accordingly, at nine in the evening, on July 2, he removed twenty pints of dark viscid fluid from the upper cyst. Both breathing and pulse improved after the tapping, and ovariotomy was performed on July 3, eighteen hours after the tapping. Sir William Fergusson and Mr. Hodgson were present, with Dr. Gritti, of Milan, and from the United States Dr. Kimball, of Lowell, and Dr. Bacon, of Newhaven. An incision, five inches long, midway between the umbilicus and symphysis pubis, through a very thick layer of fat, exposed an adherent cyst, which was emptied and drawn out after separating a small patch of adhesion. The pedicle was secured in a small clamp, and kept outside without traction. Scarcely any blood was lost.

The right ovary was healthy. The tumour weighed one pound thirteen ounces. The fluid removed measured five pints and a half; total, with the twenty pints removed before, twenty-seven pounds five ounces.

The patient recovered without a bad symptom. She only had forty minims of laudanum, and the temperature did not rise above 99·8, the pulse above 80, nor the respiration above 22. The stitches were removed on the third and fourth days. The clamp came off on the sixth day, and the patient returned to the country on August 6. Mr. Furnivall, of Egham, afterwards sent a good report of her.

Case 95.—Multilocular Cyst—Once Tapped—Ovariotomy—Recovery.

A married nurse, aged 56, was seen by Mr. Wells, in consultation with Mr. Clover, on December 3, 1866, when, as dyspnœa and much pain were caused by the pressure of an ovarian cyst, she was tapped, twenty pints of fluid removed, and so much relief was obtained that she was able to go abroad a few days afterwards with the family by whom she was employed. The cyst slowly refilled, and she was admitted to Hospital July 4, 1867. Ovariotomy was performed on July 10, Mr. Clover administering chloroform. On opening the peritoneal cavity, by an incision below the umbilicus four inches long, a quantity of ovarian mucoid or jelly-like substance was found to be free in the peritoneal cavity, and surrounding a semi-solid tumour as large as an adult head. This tumour was tapped, but its contents were too viscid to escape. Mr. Wells according opened it, and, after partly emptying it, drew it out. The pedicle was secured about two inches from the left side of the uterus in a small clamp, and kept outside with very little pull. The right ovary was healthy. The peritoneal cavity was cleansed from all ovarian fluid by careful sponging.

On examining the tumour after removal, it was found that the opening made by the trochar had not closed. It was about a third of an inch in diameter, its edges smooth, and there can be no doubt that as the ovarian fluid formed it passed gradually into the peritoneal cavity, where its more fluid portion was absorbed.

The progress after operation was most satisfactory. There was no chloroform sickness, nor was she sick till the fourth day, and then the sickness followed an opiate. Pulse, respiration, and temperature all kept within the normal range after the first day. The stitches were removed on the fourth day, the clamp on the eighth, and she left the Hospital on the twenty-sixth day in good health.

Case 96.—Ovarian Tumour and Ascites—One Tapping—Ovariotomy—Death on the Eighth Day.

A married woman, 51 years old, mother of eleven children, was sent to Mr. Wells by Dr. Andrews, of Eccleston-street, and was admitted July 8, 1867. She had been tapped in the previous May, when eight pints of dark fluid had been removed. She had been well till the spring of 1865, when the catamenia ceased, and she thought she was pregnant; but the time of her expected confinement passing, she was found to be suffering from an ovarian tumour. After the tapping she had rigors, hot skin, vomiting, great tenderness, was very weak, and only slowly improving when she was admitted to Hospital.

Ovariotomy was performed on July 17. Dr. Nathan Smith, of Baltimore, was present. An incision from an inch below the umbilicus downwards for four inches opened the peritoneal cavity, and some ascitic fluid escaped. A large cyst was tapped, emptied, and the whole tumour easily withdrawn. A pedicle, about two inches broad and three-quarters of an inch thick, was secured in a middle-sized clamp between two and three inches from the left side of the uterus, and was kept outside with very little traction. Scarcely any blood was lost. The right ovary and uterus were healthy. Chloroform vomiting began before the wound was closed, and continued at intervals during the night. She went on fairly well during the first, second, and third days after operation. On the fourth day sickness returned, the urine became scanty and charged with mixed urates, and the tongue was coated. Flatus passed freely by the anus. On the sixth day the clamp was removed, as it was depressed and the hypogastric region had become tympanitic and tender. The urine was ammoniacal, depositing triple phosphates, much mucus, and vibriones in large numbers. On the seventh day all these symptoms became aggravated, and vomiting of large quantities of fluid, with greenish mucus, and then of coffee-ground matter, became distressing, and the patient sank on the eighth day.

The following table gives the daily range of temperature, pulse, and respiration, only the highest range on each day being recorded.

	Temperature.	Pulse.	Respiration.
Day of operation	97·6	102	28
First day after	99·2	96	20
Second ,,	100·2	92	22
Third ,,	100·2	96	22
Fourth ,,	99·6	102	22
Fifth ,,	101·0	110	22
Sixth ,,	99·2	116	32
Seventh ,,	100·2	134	34
Eighth ,,	100·4	140	36

On examination of the body the wound was found to be firmly united. A few drops of pus exuded from one of the suture tracks. The pedicle adhered to the lower angle of the wound, but was easily separated. It held the left side of the uterus close to the abdominal wall. The sigmoid flexure of the colon, just where it passes down over the brim of the pelvis, was also drawn by the pedicle so as to form a sharp angle and partially obstruct the canal of the intestine. The descending colon was contracted and empty. The transverse and ascending colon and all the small intestines were much distended by gas. The peritoneal coat of the uterus and right broad ligament was injected and covered with lymph. There were about four ounces of turbid serum in the pelvic and peritoneal cavities, but no blood.

Commenting on the causes of death in this case, Mr. Wells said he was disposed to attrribute a large share in the result to the chloroform sickness. The ascitic fluid and the appearance of the peritoneum showed that the peritonitis which had followed the tapping had not entirely subsided when ovariotomy was performed. If complete rest had followed the removal of the tumour which caused and kept up the peritonitis, this would in all probability have subsided. The sickness was quite enough to prevent rest and aggravate mischief. After it subsided, there were three or four days without much progress for better or worse; then the vomiting of peritonitis came on, with signs of obstructed colon. It did not appear that this obstruction was so much due to direct closure of the canal by the pull of the clamp, as to the spasmodic contraction of the colon which the pull probably excited. Removal of the clamp did not modify the symptoms, probably because the pedicle was firmly adherent to the abdominal wall. In any similar case it may prove to be good practice to liberate the adhering pedicle from its attachment. Still it must be remembered that there were no signs of obstructed intestine till the sixth day—not until the peritonitis, aggravated by the chloroform sickness, had led to tympanitic distension of the intestines, and this, by raising the abdominal wall, had tightened the pedicle.

(To be continued.)

Science in the Detection of Crime.—A case, in which the value of the evidence of two distinguished experts was singularly correct, is reported in a late number of our contemporary, *L'Union Médicale*. A man, about an hour after taking some soup from his wife, was seized, on his way to his work, with symptoms of intestinal pain and vomiting. He was taken to the Hospital of La Châtre, and was treated by Dr. Pestal, but died on the sixth day in intolerable pain. He had accused his wife of poisoning him with "dogbane" (colchicum), but MM. Tardieu and Roussin having discovered in the contents of the intestines ammonio-magnesian phosphate, deposited sulphur, artificial ultramarine blue, and a little chip of wood covered with sulphur—in fact, the chemicals of a lucifer match—they came to the conclusion that the man had died from phosphorus derived from matches, a view which the post-mortem examination supported. The confession of the woman ultimately confirmed the conclusion of the experts.

Cambridge.—Addenbroke's Hospital.—At the Quarterly Court of the Governors of this institution held on Monday last, the question of nursing was again introduced, and the new system, that of having Sisters, much commended. Some steps will have to be taken to alter the old system returned to since the resignation of the Sisters, and a committee has been appointed to consider the subject. The Surgeons, Professor Humphry, Mr. Hammond, and Mr. Lestourgeon, were re-elected, and a vote of thanks accorded to them for past services. The late Richard Orton, Esq., late of 6, Waterloo-place, Middlesex, has bequeathed £200 to this Hospital to be applied for the general purposes of the institution.

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Medical Times and Gazette.

SATURDAY, JANUARY 4, 1868.

1868.

In every business of life, as in life itself, the commencement of a new year naturally suggests retrospect and prospect. In most cases the latter is only a reasonable occupation when the former has been made, for everything that is probable is but a repetition of that which has taken place under the same conditions. In asking the readers of the present number of the *Medical Times and Gazette* to rely upon our will and ability to furnish the Medical Profession with a journal which shall faithfully record all that is most of value in its science and literature, and represent all that is most worthy in its political movements, which shall reflect the state of Professional feeling and defend and uphold Professional honour, which shall stoop to be the tool of no party and the organ of no mere section of the Medical body, we can appeal with confidence for confirmation to our past and our present. Every real advance in practical Medicine, Surgery, or obstetrics, every discovery in anatomical or physiological science, every new fact in those departments of knowledge which lie on the confines of Medicine, every movement in the Medical body itself and in the great world outside which could influence it, has been faithfully chronicled in our columns. We have received, and are receiving, the support and assistance of a large number of the most honoured in the Profession at home, and we can claim as coadjutors many of the leaders of Medicine on the Continent, in India, and in the colonies. The life of a journal is, in some respects, like that of a man. It has its periods of infancy, growth, development, and perfect strength. Unlike, however, the life of mortals, it is under no necessity of declining. Constantly fed by new contributions, drawing information from new channels, every advance in value and vigour necessarily attracts to it fresh support and opens to it fresh resources. We might, therefore, promise even a higher degree of excellence than any we have ever yet attained; but we prefer simply to ask our readers to measure our journal by what it has been and is.

THE ARMY AS COMPARED WITH CIVIL LIFE FOR MEDICAL MEN.

The authorities having carried out nearly all the recommendations of the late Committee appointed to inquire into the grievances of the Army Medical Officers, and having very recently published their last instalment in this direction, evidently consider that all the wrongs have been adjusted, and that the Medical Department has been placed in as favourable a position as practicable. We have endeavoured to gather together all the more important elements of information on which to form an estimate of the value of an appointment in the service as compared with the more remote chances of greater emolument and renown in civil life, and we propose to discuss the matter by laying before our readers the real or supposed advantages and disadvantages of the Army as compared with practice at home. They can then form, as we have done, a judgment for themselves.

It is necessary, first of all, to remember that the Army, as a field for Professional employment, labours under the great disadvantage that it is only now emerging from a chronic state of unpopularity, and the clouds of a past discontent are yet overshadowing it. That there were many grievances, and just ones, the readers of this journal need not be reminded. While we have steadily advocated the Medical officer's claims, we have endeavoured not to identify ourselves with a section of the Department clamorous for titular rank and all its outward semblances, because we felt that some of our military friends, in the pursuit of these things, were sacrificing their own real interests and those of their Department. Moreover, we could not conceal from ourselves a feeling that there was something like a want of self-respect implied in constantly requiring the support of those things which belong to the outward man. So long as the Medical officer has a well-defined and good position—so long as he is officially placed on an equality, as a gentleman, with the gentlemen with whom he has to mix—and so long as he has the relative rank necessary to secure him the respect due to an officer from his subordinates, we were content to believe the main thing was attained. To claim, or appear to claim, anything like military command was to merge the distinctive "Medical" in the generic "officer" in such a way as to conceal it altogether, and to lose sight of the main claim and title to respect at the same time. As far as the Hospital and the functions appertaining to a Medical officer are concerned, power and responsibility should go hand in hand. In the first he has full authority, and as regards his duties he can advise his commanding officer, and urge his views in writing in as clear and decided language as he desires, and there his responsibilities end. There cannot be a divided command or conflicting authority.

As to social position at mess and elsewhere, we may say at once and decidedly, these things have been exaggerated into a bugbear. Do what we may, no warrant and no amount of gold lace can purchase the respect, esteem, and consideration which are yielded at once to the possessor of a genial disposition and a well-trained mind—in a word, to an educated gentleman. As this article will be read more particularly by young men thinking of the Army as a Professional career, we may state what has been the result of our inquiries, and it is this:—That any man who deserves the confidence and good-will of his brother officers is sure to obtain them. As far as military honours are concerned, the Horse Guards have been very liberal to the Department, as proved by the number of Victoria Crosses held by Medical officers, and it was only the other day that we chronicled their recognition of devotion and courage in the person of Assistant-Surgeon Dr. Douglas.

There is, we are told, a disposition on the part of the authorities to advance the interests of highly educated and well qualified men at the present time, if they can be procured. In India and elsewhere, sanitary commissioners, analytical chemists, and men of superior Professional attainments are required. Medical jurisprudence in India will before long require such men to act as Government referees and advisers. At Netley a few men evincing special skill and knowledge

will be from time to time required to fill assistant-professorships and professorships as these become vacant. To those fond of travel and desirous of cultivating natural history, geology, and so on, the Army offers obvious advantages over civil life.

The financial aspects of the service are confessedly good for the junior ranks. A man gets 10s. per diem on appointment, and this rises to 17s. 6d. after fifteen years' service in the same position, although it is highly improbable he will continue in it so long, as the rate of promotions, it is believed, will now practically reduce the service of Assistant-Surgeons to twelve years, when they may expect a step. A Surgeon has 17s. 6d. on promotion, and 20s. after fifteen years' service. At twenty years' he has 24s., with the rank of Surgeon-Major, and on twenty-five years' service his pay is 27s., with the option of retiring on a pension of £1 per day for the remainder of his life. Such is the minimum rate of pay which a man *must* obtain if he only live long enough to pass through the different grades. Of course he has quarters, and allowances of fuel, light, etc., and forage for a horse as soon as he is a Surgeon, or before if in a cavalry regiment or field battery of artillery. Supposing him to be married, the widow of a Surgeon or Surgeon-Major is entitled to a pension of from £70 to £100 per annum, and each child to a small annual pension also. Such is the career before a young man in the Army when put in the worst light. The pay of the Inspectorial ranks, however, ascends from 30s. to 50s. according to service, and the retiring allowances, pensions, etc., in proportion. The allowances increase, of course, with rank, and vary in amount in different places; India being the place where the highest scale of these is to be obtained.

During the past year, the British Medical Service has been very fortunate in securing a large share of prizes. The two additional Inspectors-General for India represent a gain of the monetary value of £6000; and the eight Deputy-Inspectors, with four Surgeons-Major, in administrative appointments in India, a gain of £26,000. The total sum acquired by the Department amounts, therefore, to £32,000. There are eight good-service pensions of £100 per annum, five of which, we believe, have been added also during the past year. Six of the most meritorious Medical officers of the Army are named Honorary Physicians, and six Honorary Surgeons, to the Queen. The promotions during 1867 have been unusually numerous. The stagnation of preceding years was, in a great measure, owing to the congestion caused by the large number of Assistant-Surgeons entering in 1854-55, during the Crimean war. Now that these have been removed, it is confidently expected that promotion will proceed at an accelerated rate. In 1867, the promotions included four Inspectors-General, nineteen Deputy-Inspectors, thirteen Surgeons-Major (a seniority step, and not in reality a promotion), and sixty-six Surgeons.

The Prussian Government sent a military Surgeon over Europe with the view of investigating the organisation of the Medical services of all the great military powers, and he told us that the Netley School was not only unique, but the best institution he has seen; and we agree with him. A young man, after going through the course at Netley, has obtained a special training of a first-rate character which will be useful to him in every position of life, and it is such as he could procure nowhere else.

To sum up the Army, then. The pay is good, particularly at the commencement; the position that of a gentleman; the work is hard only during the time of an epidemic or a war, when there is a fair chance for repayment in the way of distinctions, promotion, etc. Otherwise the duties are not arduous, and infinitely preferable in every way to Poor-law appointments and country practice. And lastly, there is a moderate competence for a man of average capacity, and a good chance of obtaining rank and income by ability and luck.

Of course army life entails discomfort, movement and service abroad, and it is opposed to marriage and domesticity. The advantages and disadvantages of our Profession in civil life are pretty well known, and most Practitioners can instruct those of our readers who are ignorant of them.

If a young man possesses talent, energy, and ambition to succeed in his profession as a Surgeon or Physician respectively, and if, moreover, he has the prospect of becoming attached to a Hospital, he would not, we imagine, be likely to turn his attention to the public services, unless he possessed strong dislike to private practice or the love of adventure. Again, no one desiring to be fixed to one place, and thinking of marriage and domestic life, would choose the Army. He would do better to obtain an appointment as Resident Medical officer to some provincial Hospital, form his connexions, and wait for an opening to start on his own account. When a youthful appearance is likely to be an obstacle to a man's success in private life, the Army would prove a good school in which he might pass a few years with advantage, and, after twenty years' service, a Surgeon can retire on ten shillings per diem. The society of gentlemen, the comparative lightness of the duties in the army, the certainty of the pay and the realisation of an income at the outset of a Professional career, together with the practical knowledge procurable at Netley, are, we think, sufficient to put the Army in a good light for first-rate men of limited means as a temporary employment—at any rate until experience, years, and the social advantage and training which they will receive have put them into a favourable position for entering on practice in civil life.

ALOES.

If we were to inquire what drug is most frequently taken by the population of the British Isles, we believe the answer would be—Aloes. Moreover, it is one of the oldest of drugs. The preparations in use at the present day and their names carry us back from the British Pharmacopœia through the Middle Ages to the days of the Roman Empire. It is unique in its action. When properly used, it promotes an important function without disturbing others, and it is now what it was in the days of Celsus, the medicine *par excellence* for townsfolk and literary people—"*urbani*" and "*literarum cupidi*"—for those, in fact, who oftenest send for a Doctor, pay him best, and criticise him most sharply, who keep pill-boxes on their dressing-tables, who are miserable without their daily relief, and more miserable if it be accompanied with nausea, griping, or exhaustion. It may be worth while, then, to devote a few spare moments to the study of a drug so important.

More than 2000 years ago aloes was as well known at Rome as it is now, and was spoken of in popular proverbs as the very symbol of bitterness. Yet the aloes, which was imported then, as now, from India and Arabia, though better than what was manufactured on the shores of the Mediterranean, must have been of a very sorry description. Not only was it largely adulterated with stones and sand, but it is clear, from the descriptions of Dioscorides and Galen and the enormous doses in which it was given, that it possessed such a comparatively large proportion of the so-called resinous ingredient—that which is insoluble in water and is rejected in making the watery extract—that it had almost as great a reputation as an astringent and desiccative as an aperient.(a) It formed a part not only of aperient boluses and *hieræ picræ*, but was an ingredient in those resinous applications to wounds and ulcers of which the old books contain legions, and of which the Friar's Balsam, or tinct. benzoes co., containing aloes, is a venerable survivor, and the carbolic acid treatment a reproduction. In fact, Galen clearly recognised two elements in it—one moderately astringent, one vehemently bitter. To the former were ascribed its virtues as a tonic and vulnerary,

(a *Vide* Galen, *De Simplic. Rem.* lib. vi.

to the latter as a purgative. They had a plan in those days of *washing* drugs. They found by experience that the oxide of copper and other coarse metallic preparations in vogue were deprived of much of their irritant property by dissolving out their soluble parts; and in applying this to aloes, they discovered that, if well washed, it lost its purgative virtue nearly or altogether. A rough bit of analysis, but one which Medical Practitioners, down even to our own day, have hardly seen the force of, or they would not have talked as they did of the activity of the so-called resinous part of aloes. We find Dr. Garrod and Dr. Farre, according to the admirable lectures on the Pharmacopœia by the former, published in this journal in 1864, making experiments even then to convince their weaker brethren of the worthlessness of the insoluble part of aloes.

We may now skip about 1200 years, during which Medical science was chiefly kept up by the Jewish and Arabian students and imitators of the Greek Medical classics. The Arabians, in turn, were drawn upon by the Medical writers of Western Europe, when printing had been invented, and physical science awoke from the dust. The great authority John Mesue, of Damascus, whose works were the source of all pharmaceutical lore in the sixteenth century, and who was, so to say, the lineal ancestor of all Pharmacopœias down to the British, gives aloes, if possible, a higher character than his Greek predecessors. The maxim found in Dioscorides and in some editions of Celsus was enforced—that aloes was so congenial to the stomach, that it ought to be mixed with all purgatives. And we soon find the acutest Physicians of the day writing monographs on aloes, in which they recognise it not as a mere purge, but as a preserver of health by keeping the intestines in their normal activity. Curious is it, as a sign of the leisurely, dreamy, bookworm state of mind in the early part of the seventeenth century, to find monographs, respectable treatises in their size, written to describe and recommend some one preparation of aloes. Such a work is the "Aloedarium" of the great Raymund Minderer, of Augsburg, once the accomplished scholar and Physician to the most serene Duke of Bavaria, and to the noble family of the Fuggers—a man whose prescriptions were copied by the Physicians of the whole world. Now, his name is forgotten by those who prescribe his febrifuge, the liquor ammoniæ acetatis; it is heard only in the mouths of the vulgar, who ask at a chemist's for "spirit of Mindererus" for a cold in the head; but whether Mindererus was a man, or a beast, or a stone, they wot not. *Sic transit gloria Medici.*

This "Aloedarium" of Minderer, dated at Augsburg in 1622, contains, in 270 duodecimo pages, a most elaborate account of his pet compound of aloes with spices and aromatic gums, and of all that ever was said by authors, sacred and profane, about each of the ingredients separately. The components were three ounces of aloes, three scruples each of marum and of saffron, three half-drachms of agaric, costus, and myrrh, three drachms of ammoniacum, three times two drachms of rhubarb, and three half-scruples of lign aloes. Each of these fancifully proportioned ingredients was separately macerated in a separate and supposed appropriate liquid—for instance, the aloes in rose water, the myrrh in rue vinegar—so that no less than twenty liquids were employed in concocting the nine solids into what no doubt was a very useful predecessor of our compound rhubarb pill. What is noteworthy and practical about Minderer is, that he recommends his compounds in what, for the age, were small doses—that is, from ten grains down to two or three; that he advises it to be taken often for the preservation of health, and not (by itself) as a purge in sickness, and that he specifies the class of people who should take it: not the lean, dark, and nervous, but the big, flaxen, Saxon populations who ate plenty of fat meat, and washed it down with daily draughts of fat ale.

A few years later we meet with another monograph, the "*Aloe Morbifuga*," published at Antwerp in 1633 by Dr. William Marcquis, sworn Physician of that city. It is a curious thing that all the literary and Medical part of this work is a direct copy—theft, we suppose we may say—from Minderer; not merely the ideas, but the words, are borrowed. Yet, in one respect, it shows great progress. For, lo! the author apologetically prescribes the drug in its native symplicity, without the usual bombastic parade of heterogeneous admixture. Nay, more; Marcquis is, we believe, the father of the watery extract of aloes. Surely they err, he says, who wash their aloes with repeated onpourings of rainwater, till they get a clean, dry, tasteless residue; for they wash away the valuable part, and leave the dregs. But although he gives a formula for the watery extract, he does not like to throw away all the insoluble portion, whose astringency he thinks of some value.

Already, in the time of Minderer and Marcquis, we find the West Indies enumerated amongst the places from which aloes was brought to Europe, and from that time to the present the account of its varieties and properties has been handed down from one writer on drugs to another with little intrinsic variation. We are usually taught to recognise four varieties as regards physical condition. First, the semi-transparent, brittle, of reddish-yellow colour, conchoidal resinous fracture, and of an aromatic smell, which (to us) is like that of wormwood. Secondly, the opaque, of a dull liver-yellow, gummy, and tougher in fracture, imported in calabashes, and with a smell the only analogue of which is just the "three ounces of a red-haired wench," which the witches in Macbeth add as the climax to their cauldron "to raise the stench." Thirdly, a blackish resinous aloes of nauseous smell; and, lastly, a refuse variety, mixed with all sorts of impurities, which is traditionally described as *caballine* or horse aloes. This last is, we suspect, very little an article of commerce just now, and no one who knows the value of animal life in this country at present need think that it is used by horse-doctors. Mesue, by the bye, tells us that the roguish dealers in his day used to try to improve the look of their worst aloes by washing it in urine and saffron, so as to give it a yellower colour.

Such being the physical characters, we are taught to believe that the first variety comes from Socotra (the *Insula Dioscoridis* of the later Greeks), the second from Barbadoes, the third from the Cape. We find, moreover, that the British Pharmacopœia gives its sanction to the Socotrine and Barbadoes only. But here we may look with curiosity at the Returns of the Board of Trade for 1866, from which we take the following quantities as imported in that year:—

Imported from	lbs.	Declared value per cwt. £ s. d.
Holland	15,514	7 10 0
British India, Bombay & Scinde	23,226	7 9 6
Barbadoes	75,873	8 10 0
Other parts	1,069	7 9 4
British Possessions in South Africa	791,594	1 15 1
East Coast of Africa	2,631	1 13 1

These figures are curious, to say the least. The total quantity imported is 910,507 lbs. Of this, 114,282 lbs., or somewhat about one-eighth, are of the orthodox sorts (for the Bombay includes the Socotrine), and are worth, as imported, about 1s. 6d. per lb.; whilst the Cape (which seems as cursed in its drugs as in its wine) contributes seven-eighths of the whole at the prime value of threepence farthing per pound! As none but the 114,282 lbs. of the best enters into legitimate pharmacy, what becomes of the 794,225 lbs. of the worst? Making every allowance for exportation to America and France, where the Cape aloes is *officinal*, what a vision these figures give us of cheap griping physic—what material for quack pills!

When we ask to what the difference of one kind from another is due—whether to climate, to species of *aloe*, or to mode of preparation—we get very uncertain answers; and in

what that difference consists we are equally at a loss. The pharmaceutists of the last century affirmed that the Socotrine contained most soluble matter, and considered it the best and the only kind fit for the Pharmacopœia; they also thought the Barbadoes griped, because of its excess of so-called resin. At the present day, the Barbadoes is most in favour, as being most active; and its excellence, which is rated by Mr. Squire as half as strong again as Socotrine,(b) is thought to be due to its less proportion of resin. On this point, we are assured by a friend who has taken aloes for forty years, that the difference lies in the quality, and not in accidental impurity or dose of the drugs; and that the Barbadoes produces quite a different sort of sensation from the Socotrine. One thing is clear, that the best aloes is considered not too good for a valuable horse, and the Barbadoes goes to the stable whilst the Cape goes to the cottage.

The insoluble part of aloes is of no definite taste, but melts in the mouth and sticks to the teeth. It probably consists mainly of the mere common juices of the plant; but it may sometimes, according to Mr. Squire, contain some portion of the true bitter extract which has been spoiled and rendered insoluble by oxidation during careless manufacture; and this, which is possibly mischievous, is got rid of in the watery extract, as well as what is inert.

In order not to be tedious, let us now endeavour to wind up what we have to say in the following axioms, whose brevity must be their apology for their apparent dogmatism.

Aloes should always be given in the solid form. It takes twice or thrice the quantity in solution to produce the same effect. All the tinctures, wines, and elixirs are as wasteful as nasty. Even the favourite decoction is a mistake. It were far better to give one grain of watery extract in a pill, and a dose of potash and cardamoms in a draught, than to waste four grains of the extract in an ounce of decoction.

The best aloes should always be given, no matter its price. It would not fetch the money if not worth it.

The watery extract should also be always given; the crude is barbarous. How is the dose to be fixed of a drug of which twenty to sixty per cent. may be inert?

All the preparations containing alkali, like the enema aloes of the P. B., "in order to render the resinous parts soluble," etc., etc., are nonsensical barbarisms. The active principle of aloes is as soluble as sugar, and what is dissolved by alkali is useless, if not mischievous.

The time which aloes takes to operate—viz., from six to ten hours—the greater activity of solid than of liquid preparations, and the kind of effect produced, are positive and ultimate facts. There is said to be a notion that it acts on the muscular fibre, and not on the mucous membrane of the intestines; that it has "an effect on the venous system;" and that the reason it acts on the large intestines is because it does not dissolve till it reaches the colon. We may well gasp when such delirious stuff is handed about as Medical knowledge! Aloes is as soluble as sugar; no respectable pharmaceutist would sell a pill knowingly that would not dissolve in the stomach, and if it did pass the thirty feet of stomach and small intestines undissolved, who could insure its solution in the six feet of the drier and more sluggish colon?

Its action on the colon is through the blood, and not local. An enema of pure aloes neither irritates the rectum, nor a wound.

Aloes, so salutary to the torpid bowels of full-fed, phlegmatic people as an *eccoprotic*—*i.e.* "scavenger"—may gripe the colon and irritate the rectum severely if given to persons whose bowels are not loaded, and tongues clean and reddish. Or it may do the same to any one, if given too often or in too large a dose, or for the purpose of acting like a saline purge. Great spasm of the rectum, piles, and a copious discharge of thin mucus may be produced by too large doses or too often.

Aloes may be taken for forty years discreetly, and produce no piles. Again, piles may come to persons who ought to take aloes but do not, and may follow any violent purge which forces the mucous membrane through the sphincter. They often follow spontaneous diarrhœa and dysentery, as they do aloes if misused, no more and no less.

The dose of aloes should be as small as possible, and reduced by degrees. Half a grain to a grain of watery extract is enough for ordinary constipation.

It may be given to the youngest children—for instance, to babies of a year old, whose bowels are obstinately constipated, and motions pale and curdy. For children too young to swallow a pill, no vehicle is equal to the powder or (better) the powdered extract of true liquorice, which again may be enveloped in a bit of butter, and put on the back of the tongue. A bit of extract of liquorice dissolved in the mouth first, and coating the tongue, prevents some nauseous medicines from being immediately tasted.

Experience seems to show that aloes acts more satisfactorily when dissolved and combined with certain substances not purgative. But the aloes must not be spoiled by too long a process. Minderer and Marcquis used to subject aloes to *insuccation*—*i.e.*, dilution with bland juices; they dissolved it in water (Marcquis threw away the dregs, like a man of sense), then mixed the solution with wine, the juice of rose-leaves, etc. In fact, the pompous "Aloedarium" of Minderer was one preparation of the kind, and the *pilulæ aloes dilutæ* of the late Dr. Marshall Hall another. The prescription of Dr. M. Hall, in so far as it used crude aloes, was worse than its Jewish predecessor, the *pilulæ alefanginæ*, 500 years earlier, and that of the present P. B. worse than that of the P. L.

Many aloetic compounds have existed with acid, including deservedly forgotten elixirs. One of some value remains in the pills of Barbadoes aloes four grains mixed with two minims of concentrated sulphuric acid, which is said to overcome very obstinate bowels. The acid seems to lose its causticity. This is quoted from the "Surgeon's Vade Mecum," ninth edition, appendix, where it is said to be derived from Dr. Robert Dickson, the eminent botanist and pharmacologist.

Of the ancient combinations of aloes with aromatics the *hiera picra*, or "sacred bitter," of the Græco-Romans, a compound of aloes with cinnamon, is still given, mixed with gin, by old women to young girls troubled with "obstructions." The pills of aloes with myrrh, which bear the name of Rufus, who lived in the second century, and with assafœtida, are survivors of a very large family. Aloes compounded with tonics, as iron, strychnia, zinc, quinine, often enables those tonics to be taken with benefit.

One thing more has survived, and is in the most active use at present—viz., the combination of aloes with real drastic purgatives; as the pilulæ gambogiæ comp., and pil. coloc. comp. Both are simplified forms of ancient prescriptions; and the compound colocynth dates from at least the time of Galen, the aloes being added to mitigate and correct the action of the stronger ingredients. This compound may be traced in various forms down from the Greeks through the Arabians to ourselves; but the singular thing is that it is known to our vulgar by the name which it had centuries ago, though the Physician may have forgotten it. Many a Practitioner who has loitered in a chemist's shop has heard customers ask for a penn'orth of *Pill cochy*, or, as many call it, *Pil a coshy*. This is in some establishments the same amongst pills that a Saturday pie is amongst dishes—that is, a compound of all the odds and ends of purgatives worked up with common aloes, so that a good lump can be sold for a penny. But its real composition is seen in formularies of the last century, where it appears as "Pilulæ ex colocynthide cum aloe, vulgo *coccie* minores." One of the most effective purga-

(b) See "Companion to British Pharmacopœia," 5th ed., p. 20.

tives in the world is this same pill, as now made at Apothecaries' Hall, and used by old-fashioned Practitioners and families. But why is it called "Coccia?" The answer involves the history of pills.

When mankind became civilised enough to take physic, they soon must have learned the comfort of swallowing nauseous drugs in the solid form. The solid bits so swallowed were prescribed by the Greek and Roman Physicians after the magnitude of various berries and seeds; thus, Celsus directs the size of an almond of one composition, the size of an Egyptian bean of another, and so on. The morsels themselves were called *catapotia*, which we should now call *boluses*, although the exact English equivalent is *gulp*, or *gobbet*. But the word *coccus* was also used for a small berry, and *coccion* for the diminutive thereof; and the word *coccia*, or seeds, for what we call pills, seems to have been brought into popular use in the seventh century. The original *coccia* were lentil seeds—"granula ervi." Paul of Ægina's recipe, in the sixth century, was—Of aloes, colocynth pulp, and extract of wormwood, each one part; scammony, two parts: mix. His dose was *eleven* coccia, each the size of a lentil. We pity the bowels that should be subjected to so many *coccia* of the compound colocynth pill of the British Pharmacopœia.

Two kinds of pills became famous, as the greater and lesser coccia. Hence, the word *coccia* was adopted in later Latin, not as the name of pills in general, but of these pills in particular; moreover, it was corrupted into a feminine noun of the first declension; and hence it is that English poor people now go to chemists' shops to ask for *pil. cochiæ*.

THE WEEK.

TOPICS OF THE DAY.

A NEW Association, to be called the Medico-Political Association of Great Britain and Ireland, has started into existence. On Thursday, last week, an influential meeting of the Medical men of Brighton and its neighbourhood was presided over by Dr. Davey, of Bristol, Provisional President, for the purpose of furthering the objects of the Association and forming a local branch. Few will assert that there is not plenty of work for such a society to do, and it has long been evident that there exists no organisation by which the work which this Association proposes is likely to be done. Two of the prime objects which the Association has in view are the representation of registered Practitioners in the Medical Council and the annihilation of unpaid and underpaid Hospital and Government Medical labour. The machinery by which they expect to attain their object is that of holding public meetings, petitioning Parliament, and influencing parliamentary elections. The proposal to represent the general body of the Profession in the Medical Council has our entire support. We fully agree with Mr. Tatham, Dr. Taaffe, Mr. Branwell, and other speakers who took part in the Brighton meeting, that all registered Practitioners have a right to direct representation at the Medical Council Board; and we shall give a hearty support to any scheme which may bring about the recognition of their claim. The overthrow of the present system of underpaid Government Medical labour—a system which has proved equally inimical to the material prosperity of the Profession and to the welfare of the poor—will, if it be accomplished, confer a benefit which can scarcely be overrated. For the "annihilation" of unpaid Hospital Medical labour we should be glad to see the term "diminution" substituted in the programme of the Association. We are not convinced of the propriety of abolishing all unpaid Medical labour in the service of real charity. Medicine cannot afford to lose the claim on society which its open-handed benevolence has given it. It must not quit its professional status and sink to the level of a trade. But we have no scruple in acknowledging that the Profession have hitherto run to an opposite extreme. We do not require to be told that the indiscriminate system of unpaid Professional work now in vogue has given a serious check to the prosperity of the private Practitioner, and has damaged the independence and self-reliance of the lower middle and working classes. In fact, Medical men are being brought not only to see, but to act upon this conviction. It is well known that there are not the same number of aspirants which there used to be for the privilege of attending three or four hours, twice or thrice a week, at a Dispensary to prescribe for people who either can afford to pay a moderate sum for advice and medicine, or who ought to apply to the parish Doctor. An instance in point has recently come under our notice. The old St. George's and St. James's Dispensary has separated into its component halves, and St. George's half has settled in Mount-street. The Committee require the services of an obstetric Physician, and have been taking great pains to obtain one, but hitherto to no purpose. They offer the privilege of prescribing for a number of cases two or three times a week, which differ in no point of Medical interest from those which attend at the parish Infirmary. But here they stop. They can hold out no hope of promotion, for they have nothing higher to offer, and it is now universally acknowledged that these appointments do not lead to private practice. Such an institution should most undoubtedly present *honoraria* to its Medical officers; and we shall be glad to see the necessity forced upon it and many similar "charities." But we do not intend these remarks to apply to the great charitable institutions of the country. We should be sorry indeed to see their honorary offices reduced to the level of mere salaried situations.

Another Medico-Political Society—already in vigorous existence—is the St. Andrews Medical Graduates' Association. Our readers do not require to be told that one great object of the combined St. Andrews graduates is to obtain a voice in the representation of their University in Parliament. But it may not be so widely known that they have a second object in view—to reopen the doors of their University to qualified Medical men who may be ready to pass a stringent examination for the Doctorate. Dr. Sedgwick, the Honorary Secretary of the Association, in an able paper read at the late meeting, argues in favour of empowering the University again to grant degrees to non-residents: first, on the ground that the University of St. Andrews can never be an educational body, for the simple reason that it has neither school nor Hospital—its sole function must be, therefore, to examine and grant degrees—and, secondly, that whilst a University in England grants degrees without residence and allows the widest latitude in the selection of a place and course of study, there can be no just reason why a University in the sister kingdom should be deprived of a similar power. The question, however, whether it is better for the Medical Profession that a University should exist which grants the highest Medical diploma on a single examination, is scarcely touched by the latter argument. The variety and number of examinations instituted by the University of London is scarcely surpassed by any University in the world, and we should gladly see the same power of examining non-residents re-granted to the University of St. Andrews on condition that their system of testing the fitness of candidates were modelled in some degree on that adopted by the University of London. We are quite ready to confess our opinion that the University of St. Andrews was not dealt with fairly by the Scottish University Commissioners. Unsupported by any school or Hospital, that University can never compete with the University of Edinburgh if the same laws of residence are enforced on both.

If horseflesh has been the ruin of a few, it is destined to make amends by becoming not only a possible food for the multitude, but the occasion of new researches in the culinary science, and new displays of the culinary art. We are not very sanguine as to the adoption of horseflesh

as a general article of diet, if the supplies of ordinary meat can be made to keep pace with the increase of the population. But it is undeniable, after the experience of St. James's Hall, that a really good cook can turn a venerable pony into excellent fare, and all experimenters unite in praising the excellence of horse soup. In time of actual scarcity, we have no doubt that the prejudice or dislike of the people might be overcome. But at present most persons, wittingly or unwittingly, object to eat horse on the ground that it is an animal too highly developed in the mammalian scale, and too closely the friend and servant of man. This, of course, may be laughed at as a mere fancy; but it is the only assignable reason why no civilised nation of modern times has fed on its horses. An experiment, we hear, is to be tried on a large scale on February 6 next, at the Langham Hotel, when Mr. Bicknell is going to give a dinner of horseflesh to 150 persons.

We are informed that Dr. Druitt has resigned the office of Medical Officer of Health to the district of St. George, Hanover-square.

The discussion at the last meeting of the Association of the Medical Officers of Health turned on the subject of earth sewage. In addition to the valuable paper by Inspector-General Hare on the introduction of the system of earth-closets in India, Dr. Bishop, of Naples, communicated the fact that the earth system had been practically known in Capri for a very long period, and that there the deodorising powers of the soil are fully recognised in Italy. Whilst we think that a proposal to apply earth sewage for London or our large towns is simply Utopian, we hold that there is abundance of proof that it can be used, and with the best results, in agricultural districts and small towns and villages—the very hotbeds where typhoid fever, generated by contamination of water, flourishes. Had the houses in the Guildford district been furnished with earth closets, it is not too much to say that the recent epidemic would not have occurred. A similar outbreak is now reported from Terling, in Essex, where it is said to be dependent on the same cause.

The mortality of Croydon has risen from 17 to 24 per 1000 in the last ten years. *Quære:* From the misuse of sanitary measures?

The distress in the East-end of London, which now annually drains the benevolence of the sympathetic West, is an increasing evil. That it is great, there is no doubt, but that much of it is caused by the improvidence and idleness of the population, and that the local manufacturers and holders of property should be responsible for the relief of much of it, seem equally certain. On this point we may quote a sentence or two from an able article in the current *Saturday Review*:—"There are few spots in the East of London where some large employers are not reaping enormous fortunes from those very masses of the poor whom they employ. Upon them primarily should rest the responsibility of relieving this distress. But these and the ground landlords, to whom this very pressure of population brings wealth, have little motive for exertion in the face of this 'money from the West.'"

A vacancy occurs in the office of Pathologist to St. Mary's Hospital by the return of Dr. Charlton Bastian to his Alma Mater. We hear that Dr. Payne, late Radcliffe Travelling Fellow, Dr. Green, and Dr. Thorne Thorne are amongst those likely to come forward as candidates.

The meeting for the election of officers and council of the Pathological Society will be held on Tuesday next. The new Vice-Presidents to be proposed are Dr. Bristowe and Sir Henry Thompson.

Government have refused to lower the duty on Portuguese wine. The promoters of the pure wine movement rejoice.

It is said that Dr. W. Ogle, of St. George's Hospital, and Dr. Childs, of Oxford, are candidates for the chair of Botany at Oxford vacant by the decease of Dr. Daubeny. The emoluments are said to be £400 per annum, and a house; and the office is in the gift of the Royal College of Physicians.

The superintendence of the nursing department at King's College Hospital by the ladies of St. John's Home will cease in the middle of January. Those ladies have sent in their resignation, and their place is said to be already supplied by others of equal social position and qualifications.

GARIBALDI'S LATEST STUDY.

GARIBALDI, whose general benevolence is perhaps, after all, the noblest feature in his character, is solacing himself in his present retirement from political life and strife, by turning his attention to the question of painless operations on inferior animals. Thus occupied, he has requested Professor Partridge to obtain for him from Dr. Richardson all particulars on the subject, and the latest advances in the art of producing anæsthesia—a request which has been promptly complied with. The last accounts received by Professor Partridge respecting the General's health are that, on his return to Caprera, he was much enfeebled and depressed, but that since his return his health has been improving daily. He rises at six, takes his cup of hot coffee, and then to the bath. At nine he breakfasts on wine, meat, and bread and cheese; lunches at noon, dines at six, and retires punctually at nine. Physically, we could commend no better treatment for this wearied soldier of various fortune; nor, mentally, could we suggest a happier diversion of thought than the humane and gentle study in which he is interested, and which, through the labours of our countryman, may now be followed out in theory and in practice with equal facility.

THE HYGIENE OF THE SOLDIER'S FAMILY.

PERMANENT quarters have at length been procured for soldiers' wives at Malta. The building purchased for the purpose is that known as the "Camerata," situated opposite the military Hospital in Valetta, and is said to be admirably adapted for the use to which it is to be devoted. We hope that this improvement in the hygienic conditions of soldiers' families may be followed by a corresponding permanent improvement in their health. There is always a certain amount of risk in such matters that the expenditure of large sums of money, and the display of a good deal of spasmodic energy, may be followed by a relaxation of supervision, during which the good which might have been attained is swallowed up by the evil which grows up around us unawares.

FEVER AT THE CAPE OF GOOD HOPE AND THE MAURITIUS.

BY latest advices from the Cape we regret to see that a severe form of fever, considered to be of the typhoid type, and attended by considerable mortality, has appeared among the civil community of Cape Town. It prevails, as usual, chiefly among the ill-fed and those living under unfavourable hygienic conditions, but occasionally appears among the better classes. Though the disease is prevalent in the immediate neighbourhood of the barracks, the troops are said to have suffered in a very slight proportion. Among them there has been a slight increase of cases of fever of the continued form, connected in many instances with intemperance. Only one death has occurred during the past four months. The services of some of the military Medical officers have, we understand, been placed at the disposal of the colonial Government for attendance on the sick poor, the private Medical Practitioners being overworked. At the Mauritius, also, we hear that with the returning hot season the epidemic fever of last year has, to some extent, reappeared. As far as we can at present judge from the difference of type of the fever at the Cape, there appears no reason to think that it has been imported into that colony from the Mauritius.

ABYSSINIA.

The sickness and mortality among the horses and mules at Annesley Bay have assumed alarming proportions. The disease, whatever it may be, has also appeared among the camels. The Veterinary Surgeons have not as yet supplied any specific information as to its nature. One gentleman affirms it to be "heart disease," but this is rather too indefinite, and may cover a multitude of inaccuracies. The scarcity of water is probably the chief predisposing cause of the disease. So far the health of the troops has been good, and this probably arises from the water supply being more liberal, and, in the case of the European portion, being supplemented by the use of other beverages. We shall be glad to hear of the advance of the whole force to the more salubrious highlands. Thus far the descriptions of the country, which we have from time to time laid before our readers, have been fully verified. The seaboard is "a dry and thirsty land where no water is." The highlands are verdant, richly wooded, and well supplied with water. The accounts received from the advanced brigade at Senafè, and from the *Times* correspondent at Soros, twelve miles further on into the mountains, are on the whole cheering. The climate which they have attained is just such as will suit the European soldiers and their Sikh comrades, provided their clothing and diet be modified to meet its vicissitudes. We regret to see that the party of Royal Engineers sent from this country arrived without winter clothing. This mistake must lie with some of the military departments, as the necessity for warm clothing appears to have been well known to the Medical authorities, if we may judge from the instructions issued for the guidance of the sanitary officers of the force, which we have already noticed at length.

ENTHETIC DISEASE IN THE ARMY.

The 74th Highlanders, at present quartered in Dublin, have had during one week recently, in a strength of about 750 men, 21 admissions into Hospital from venereal diseases. This is equivalent to an annual proportion of 1456 per 1000 of strength; or, in other words, if the present state of affairs should continue for a year, the whole regiment will have passed once and a half through the Hospital for this class of disease alone. The 74th within the last few weeks changed their quarters from Limerick to Dublin, and soon began to show an increase in enthetic diseases. The other regiments, which have been longer in Dublin, are not suffering to the same extent, and the idea suggests itself that their greater experience of the "dangerous classes" has protected them. The influence of change of station in causing an increase of enthetic diseases in a regiment has often been observed. When the change has been from one in which the Contagious Diseases Act is in force to another in which such is not the case, the conclusion is sometimes jumped at that the consequent increase of venereal diseases among the men is the result of the withdrawal of the protective influences of the Act; but here is a case in which neither of the stations occupied by the regiment comes under its provisions, and yet a marked increase of disease has taken place. To us the solution is easy. Regiments which have been for some months in the station have, from experience, become a "law unto themselves;" the newly-arrived have to acquire their experience at the enormous cost which we have noted above.

NAVAL CANTEENS.

We see in the naval and military intelligence of the *Times* that Lord Clarence Paget, Naval Commander-in-Chief at Malta, has been exerting himself in a most praiseworthy manner to forward the interests of his men by the establishment of a naval canteen, comprising reading- and recreation-as well as refreshment-rooms, to be opened on the 1st instant. The site, on Corradino-hill, is said to be well chosen, and the regulations, which have been drawn up under the directions of the Commander-in-Chief, evince a practical knowledge of the wants and habits of the British man-of-war's man, consideration for his comfort and convenience, with, at the same time, full attention to discipline. We hail with pleasure all such efforts for the amelioration of the position of our sailors, as nothing exerts a more powerful influence against the inroads of disease and the temptations of idleness than having at command the means of cheerful and harmless enjoyment. It is said that the scheme has been carried out in spite of scanty encouragement—it might also be said opposition—in certain quarters. All the more honour to its author, Lord Clarence Paget, who, we may be sure, must have found strenuous supporters among the Medical officers under his command.

THE OPHTHALMOSCOPE IN PHYSICIANS' PRACTICE.

We are glad to find that the ophthalmoscope is being more and more used by Physicians. It is now several years since Dr. John W. Ogle drew attention to the value of this instrument to the Physician. We learn that the ophthalmoscopical appearances in cerebral and other diseases are systematically studied at the Leeds Infirmary by Dr. Allbutt. He attaches great value to them. Not long since we gave in our Hospital Reports a very brief account of cases from his practice in which the opthalmoscopical signs had been precisely noted. The wide district from which the Leeds Infirmary is supplied, and the number of its out-patients, would lead us to expect that a large field may be found in Leeds for such investigations. We hear that the great Lunatic Asylum at Wakefield has been kindly thrown open to Dr. Allbutt by Dr. Crichton Browne. It is difficult to conceive that a more magnificent field than this for the study of cerebral diseases can be found. Every form of these diseases may be seen continually represented in this Asylum, as there are always about 1200 cases under Dr. Browne's care. We may add that Dr. Browne has kindly permitted the Leeds students to avail themselves (under certain restrictions) of these great advantages.

Dr. Allbutt considers that symptomatic lesions of the eye are, in severe cerebral disease, the rule rather than the exception, and that no case of severe cerebral disease can be considered to be fully reported without notes of ophthalmic observations. In this he strongly supports the views some time held by Dr. Hughlings Jackson, who has published several papers on Medical opthalmoscopy in this journal and elsewhere. We are glad to learn that Dr. Allbutt proposes in a short time to lay formally before the Profession certain conclusions at which he has arrived as to the value, in diagnosis and prognosis, of ophthalmoscopical signs. It would be difficult for us at present to give any clear account of his researches. Our earnest object is to beg Physicians to follow Dr. Allbutt's example, and to work in the same profitable field. We may just allude, however, to Dr. Allbutt's studies of the state of the optic discs in General Paralysis. His chief conclusions seem to be that atrophy of the optic nerves may be observed throughout the whole of its course, in *nearly every case of that disease*. Dr. Allbutt does not attach much diagnostic value to this, but he justly considers it to be of great pathological significance. We think it is an observation of extreme value, and consider that very great credit attaches to him for it. It is a discovery which will, we believe, be useful in throwing light on the minute changes of structure which cause the more characteristic symptoms of this disease. Dr. Allbutt is the first, in this country at least, to have made the observation alluded to. Dr. Westphal, of Berlin, has already published similar results, but Dr. Allbutt's conclusions have been arrived at quite independently.

Dr. Allbutt thinks it very important to us to be able to

observe the process known as simple white atrophy from its very commencement. This condition is generally observed by the ophthalmic Surgeon when loss of sight (a late and irregular symptom) has set in. The atrophic process is then almost over. The whole question of "optic neuritis" must, according to this Physician, be reconsidered. Mere stasis, with exudation, is too often called optic neuritis, and that name is denied to states which often precede the even-edged white atrophy. We have great pleasure in announcing that two lectures on optic neuritis—a condition at least quite as important as the symptom of so-called aphasia, which is now attracting so much attention—by Dr. Allbutt, will shortly appear in our columns. Dr. Allbutt's communication will be on "Optic Neuritis in Diseases of the Brain."

JOURNAL OF THE BENGAL BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The Bengal Branch of the British Medical Association was established five years ago under the auspices of Dr. Chuckerbutty and a few Medical officers stationed at the Presidency, with a view to promote Professional concord amongst the native and European Medical Practitioners of Calcutta, to collect and discuss facts gleaned in practice and pathological questions to act as a feeder to the Museum of the Medical College, and to stimulate Professional exertion generally, and promote an *entente cordiale* amongst Professional men throughout India. Other societies have arisen and flourished in all the Presidencies in former years, and their published Transactions bear testimony to the zeal and ability of the Medical officers, whose contributions to Medical literature and science therein recorded have given them a high place amongst the Surgeons of the East; but we venture to say that no society has worked upon such a practical basis and achieved such enduring success as this. There is no better field for the study of morbid anatomy and pathology than are the large civil Hospitals of India, although, except in gaol and charity Hospitals, post-mortem examinations cannot, owing to popular prejudice, generally be made. The Hospital attached to the Medical College of Bengal affords peculiar facilities for the study of morbid anatomy, and fruitful subjects for discussion have been brought largely before the Branch from this, as also, in a lesser degree, from other sources.

We are glad to see the Society assuming this pathological character, as we conceive that these are the studies which tend, more than any other, not only to advance, but to give precision to, our Professional knowledge. The Calcutta Medical College Museum appears to be singularly rich in morbid specimens, and to offer a large sphere for the study of tropical disease—a sphere than which there is none better for the instruction of young Medical officers recently arrived in the country. We observe, in the pages of the Journal, that various diseases of the highest interest and importance have come under discussion; and the way in which they have been commented upon in debate shows that our *collaborateurs* in India, in spite of the mental lethargy so apt to be induced by the climate, are quite *au courant* with the knowledge of the day. Valuable contributions have been made on leprosy, elephantiasis, fever, osteo-myelitis, and pyæmia, changes of type in disease, aphasia, tetanus, etc. A native Practitioner, Baboo Kungee Loll Dey, gives an interesting paper on "Hindoo Social Laws and Habits viewed in relation to Health," and another, part of a series, on that very important subject, "The Indigenous Drugs of India." Dr. Fayrer, whom our readers well know, the able Surgeon upon whose shoulders have fallen the mantles of an O'Shaughnessy, a Jackson, and a Webb, proves that ligature of the femoral artery in elephantiasis of the leg, as proposed by Mr. Butcher, of Dublin, is no cure for that disease; and Dr. Chuckerbutty produces sloughs several inches long cast off from dysenteric intestines, and yet leaving the patient eventually well, and able to pursue his ordinary occupation. The entire volume is full of interesting matter, and worthy of an attentive perusal. The paper on Tetanus we would recommend to the notice of Mr. Lockhart Clarke.

We regret to learn that the Journal has ceased to exist. Medical editors are *rarœ aves* in India, and when the late editor left Calcutta, no one could be found to supply his place. The proceedings of the Branch are, however, recorded in the *Indian Medical Gazette;* yet, with the superabundance of material at command, we should think that there was ample room for a separate publication. Medical newspapers are usually too cramped for space for editors to find room to record more than a mere abstract of proceedings and transactions of societies. In taking leave, for the present, of the "Bengal Branch of the British Medical Association," we heartily wish it success in its future labours. With such a spirit animating its members as that advocated by the late editor and President in his annual address, we may safely predict results quite as successful as those which have hitherto marked its progress.

FROM ABROAD.—PRIZES AND PRIZE SUBJECTS AT THE ACADÉMIE DE MÉDECINE.

At the annual public sitting of the Académie de Médecine, M. F. Dubois, the Secretary, read his report concerning the prizes which have been adjudged for the year 1867. This report is an able summary or analysis of the longer reports delivered in by the various committees appointed to examine the comparative claims of the essays sent in for competition for the respective prizes—documents in which the position of the questions to be elucidated, and the claims of the different competitors, are often stated at considerable length and with great ability by *savants* chosen expressly for their acquaintance with the topics in question. We cannot but regard this plan of stating publicly the grounds upon which the decisions have been come to, and the names of those who are responsible for them, as an infinitely better and fairer procedure than the system which prevails in this country of consigning prize essays and scientific papers claimants for publication to referees whose names are kept secret, and the grounds of whose decisions are never stated, to the great diminution of the responsibility under which the duties they have had committed to them are performed. M. Dubois also announced the prize subjects for 1868 and 1869, and the Assistant-Secretary, M. Béclard, delivered the annual eulogium, which this year was upon M. Rostan.

The following are the Prizes awarded for 1867:—1. The Academy Prize to M. Lanelongue, of Bordeaux, for what is stated by M. Legouest, the reporter, to be a very complete and satisfactory essay on Fibro-plastic Tumours. 2. To MM. Cornil and Trasbot the Portal Prize, having for its subject the Different Varieties of Melanosis, has been accorded, the memoir being, according to M. Gubler's report on it, a very valuable one, and especially so with regard to pathological anatomy. 3. For the Capuron Prize, subject the Changes Undergone by the Fœtus after Death in Utero, and the indications these furnish of the epoch at which it took place, one essay only was sent in, that of M. André, of Bordeaux. This, M. Blot reports to be a very good one, exhibiting, among other matters of interest, the fact that the anatomical changes undergone by the globe of the eye indicate the length of time that has elapsed since the death of the fœtus. 4. For the Civrieux Prize, subject Dementia, the reporter, M. Baillarger, did not consider that the essays presented came up to the mark. 5. The Barbier Prize, for the discovery of diseases hitherto deemed incurable, such as cancer, hydrophobia, &c., was competed for by only four candidates. Formerly, M. Dubois observes, the Academy used to be inundated with statements of infallible remedies by the claimants of this prize; but since the intimation has been added to the programme that recompenses would be accorded to those who, without attaining the object of the testator, still the most

nearly approached it, their number has greatly fallen off, the aspirants rightly understanding thereby that facts would be required and critically examined in order to ascertain what degree of approximation had been accomplished. Of the four essays sent in, one only is recommended for reward—that of M. Hermann, of Mulhouse, entitled Considerations on Uranoplasty. It chiefly relates to a modification of Langenbeck's operation, the periosteum being much utilised in effecting the reparation. 6. The Anussat Prize for the best work on Surgical Therapeutics to M. Magitot, for his work on Dental Caries. 7. The Godard Prize, for the best work on External Pathology, is awarded to M. Chedevergne, of Poitiers, for his memoir on Indirect Fractures of the Dorso-lumbar Spine. "Honourable mentions" are also given to M. Daudé for his Affections of the Mediastinum, and to M. Larcher for an essay on Intra-uterine Fibrous Polypi. 8. For the Itard Prize for the best work in Practical Medicine and Applied Therapeutics there were no less than fourteen competitors. M. Morel, the well-known Director of the St. Yon Asylum, is declared to be entitled to the prize, for his treatises on Mental Diseases, and on Moral and Intellectual Degenerescence of the Human Race—works which M. Gueneau de Mussey, the reporter, describes as testifying alike to the philosophic spirit and practical mind of their author. Another prize is awarded to M. Dutroulau for his work on the Diseases of Europeans in Hot Climates, based on an experience of seventeen years in colonial practice. Honourable mentions are also accorded to M. Foley for his work on the Effects of Compressed Air on Workmen engaged in the Submarine Construction of Bridges, to Signor Polli for his Medication by the Sulphites, and to M. Desprès for his essay on Erysipelas. Altogether, the Academy, M. Dubois observes, has reason to feel well satisfied with the responses which have been made to its prize questions for this year, exhibiting, as these do, proofs of good work done and real progress in Medical science. He announced also that another had been added to their rich list of prizes by the will of the Marquis d'Ourches, who has left 25,000 francs for the foundation of two prizes for establishing the Certainty of the Signs of Death. One of these is to be given to the discoverer of so simple a means of doing this as to be available in the hands of even ignorant villagers, and the other for means that will require Medical knowledge for its execution and appreciation.

The following are the subjects of the Prizes proposed for the years 1868 and 1869:—1. The Academy Prize of 1000 fr. for 1868, Effusion of Blood into the Substance of the Tissues; for 1869, Diseases of the Cerebellum. 2. The Portal Prize of 600 fr. for 1868, The Tumours of the Encephalon and their Symptoms; for 1869, Sclerosis in the Different Organs. 3. The Civrieux Prize of 800 fr. for 1868, The Psychological Phenomena before, during, and after the Induction of Anæsthesia; of 1000 fr. for 1869, The Clinical History of Insanity, with Predominance of the *Délire des Grandeurs*, examined especially in relation to treatment. 4. The Barbier Prize of 2000 fr. for 1868, and 3000 for 1869, to be awarded to the discoverer of the means of cure of diseases reputed incurable, as cancer, hydrophobia, epilepsy, scrofula, cholera, &c. "Encouragements" will be awarded to those who make the nearest approach to the aim indicated. 5. The Capuron Prize of 1500 fr. for 1868, The Treatment of Affections of the Uterus by means of Mineral Waters; and for 1869, The Return of the Uterus to its Normal Condition after Delivery, together with the Medico-Legal Applications of the results of the investigation for the determination of the length of time a woman has been delivered. 6. The Godard Prize of 1000 fr. will be given to the author of the best memoir on Internal Pathology in 1868, and External Pathology in 1869. 7. The Anussat Prize of 1000 fr. will be awarded in 1868 to the author whose work, founded on anatomical research and experiment, realises or has prepared the way for the greatest amount of improvement in Surgical Therapeutics. 8. The Orfila Prize of 400 fr. seems a tough business, for it has been re-offered several times, the subject being Digitalis and Digitaline. Describe accurately the chemical characters of digitaline, the tests of its presence, the alterations it gives rise to, and the symptoms these induce. Moreover, examine the extent to which experiments on animals by means of the matters vomited, those found in the economy, and the products of analysis are to be received as indications or as a proof of poisoning. 9. The Lefèvre Prize of 2000 fr. for 1869, subject Melancholia. 10. The Sexennial Argenteuil Prize of 8000 fr. will be awarded, in 1869, to the author of the most marked improvement in the Treatment of Stricture which has been made known during the period 1863-68. In default of such work, the prize will be adjudged to the author of the greatest improvement in the treatment of the other diseases of the urinary organs during the same period.

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

The Surgical Wards of St. Louis—Amputations—Compression Treatment of Aneurism—M. Trélat's Clinique—Classification of Patients, etc.—The Hôtel-Dieu—M. Laugier's Treatment of Fractures—M. Bazin's Clinique at St. Louis—Cases of Cryptogamic Skin Disease—Eczema, etc.

Monday, December 23, 1867.—Visited the St. Louis. This Hospital, although chiefly of repute for skin diseases and constitutional syphilis, receives also a large number of cases of general Surgery. I went round first with M. Guérin. He showed me a case of phosphorus-necrosis of the lower jaw, in which he had a few days before removed almost the entire bone in a state of partial sequestrum. Although eleven months had elapsed from the date of the first periostitis, yet the dead bone was not at all parts separate from the living, and it was necessary in the operation to detach the periosteum, and cut through the bone. An incision had been made in part of the jaw, from one angle to that of the opposite side. M. Guérin informed me that phosphorus-necrosis was still frequent in Paris.

There were two patients in the same ward doing well after amputation of the leg in the upper third. In each the circular method had been adopted, and the wound dressed throughout with charpie soaked in a mixture of spirits of wine and water.

M. Guérin also had in the same ward a man in whom a large popliteal aneurism had been cured by digital compression of the femoral. Only four hours' compression had been necessary. At the time of my visit, although several weeks after the cure, the tumour, now quite solid and contracting, still filled the whole popliteal space. It must therefore have been at first of large size. The patient, although a healthy-looking man, of not more than 35 or 40, has a second aneurism on his right femoral, just below Poupart's ligament, for which as yet no treatment has been adopted. He has also very suspicious-looking scars of ulcers on his legs (qy. syphilis?).

A case which had interested M. Guérin much was one of fungous disease of the testis, complicated by a hernia on the same side. In the excision of the enlarged testis great care had been necessary to avoid opening the hernial sac.

With M. Trélat, in the wards of the same Hospital, I afterwards saw a number of more or less interesting cases. M. Guérin uses lotions of spirit and water to wounds; M. Trélat for the same purpose diluted carbolic acid. A case of amputation of the leg (flaps) and one of excision of the breast were both doing well. One of extraction of cataract had failed, and the globe was in a state of general inflammation. There was a severe case of double syphilitic iritis with inflamed vitreous, etc. The St. Louis, from its position in a manufacturing part of Paris, receives many fractures. I saw at least half a dozen fractures of the tibia and fibula in the wards, and several of the thigh. Plaster of Paris and starch apparatus appear to be used much as in London. My informants told me that, excepting in rare cases, without displacement and without contusion, they are not applied in the first in-

stance, but a few days are allowed to elapse, in order to avoid the risk of swelling.

Lastly, a number of cases of uterine disease were very carefully examined, and amongst these was one of vesico-vaginal fistula, high up and very small. The woman had been sent up from the provinces, where an operation, in large part successful, had been performed.

Thus it will be seen that the classification of cases in French Hospitals is not carried out to the extent that is usually supposed. The Surgical wards of St. Louis are, as regards their patients, precisely like those of one of our London Hospitals, only that there is less classification. In but few of the latter would you find cases of eye disease, or cases requiring the use of the speculum.

I find the wards excessively close and hot. Everything was beautifully clean and in excellent order. The beds are placed much too thick on the ground for English notions; but in spite of this and of the high temperature, all the wounds and sores looked quite healthy.

It was nearly twelve before M. Trélat's visit concluded.

December 25.—At the Hôtel-Dieu, in M. Laugier's wards, I saw but few cases, and none of any special interest. I had the pleasure of seeing a recent fracture of the leg put up in the manner of my earliest student days, but which I had not seen for the last twenty years. The leg was held straight upon a stout web, and a very thick pad four inches long was placed under the heel, so as to elevate the lower fragment. Compresses of soft linen well wetted with spirit lotion were laid lengthwise on the front of the leg, and were supported by a many-tailed bandage. Finally, large cushions were placed at the sides, and upon them long wooden splints which were kept in place by straps. There was no back splint nor any foot-board. The plan has the disadvantage of not permitting of easy examination of the position of the fragments, but in other respects I do not know but what it is as good as those which, with us, have entirely superseded it. M. Laugier applied all the bandages *propriâ manu*, and I need not say that every step was effected with admirable neatness.

Tuesday, December 24.—In M. Bazin's wards at the St. Louis. There were about twenty students present, all eager to listen, and several note-takers. M. Bazin teaches well. He spent from five to ten minutes at each bedside, and gave with great volubility a lecture on every case. He did not see more than twenty patients, but some of these were, to me, very interesting cases. There were three cases of favus, more probably than all the London Hospitals put together could show at one time, and more than occur in the practice of the Blackfriars Hospital in six months. One of them showed the favus growth under one of the finger-nails, a condition of which I have often heard and read, but never before saw. One of the favus cases, a boy of ten, had splendid *godets* on various parts of the body. He showed, also, scaly patches intermixed, and these, Professor Bazin explained, were what he called epidermic favus. The thick yellow crusts usually recognised as favus he considers to be produced only when the cryptogam gains access to the hair follicles; when it spreads superficially, it causes scaliness only. All who have seen much of favus will be familiar with these two very different conditions, and those who possess the New Sydenham Society's *Atlas* will see them illustrated in one of the portraits (Plate II., I think) copied from Hebra, which shows small favus crusts and large scaly patches on the chest and neck of a boy Some authors have considered that the scaly patches are those of ringworm, and have believed that ringworm prepares the skin for favus; but no doubt M. Bazin is right, and both are forms of the same disease.

There was a middle-aged man in bed with common ringworm. I never saw it in an adult Englishman; and should it occur, I much doubt whether you could persuade him to go into a Hospital, still less take to his bed for it. The diagnosis was undoubted, though the case might easily have been taken for slight eczema. There were large patches on each side of the neck, passing into the whiskers, and others on the back of the left hand. M. Bazin pointed out the peculiar features, laying great stress on the circinate form of the patches. He spoke of it as not unfrequent in Paris, and attributed it to contagion at barbers' shops—a sort of "barber's itch." The only approach to a similar state of things which I ever saw in England was on the person of a Medical student, who, after frequent work with the microscope on the hairs of ringworm in children, had a large patch on the left side of his neck, doubtless from contagion by his own fingers. In him, as in M. Bazin's patient, the eruption, although it spread into a large patch on the neck and cheek, did not invade the scalp.

We saw also a splendid example of syphilitic rupia, the genuine "limpet-shell crust," and one of a papular secondary rash. To the latter the name of *plaques muqueuses* of the skin was given, and much stress was put on the distinction between the malign and milder forms of syphilis. Under the term "malign" such eruptions as rupia, ecthyma, etc., are counted, which tend to ulcerate.

There was also a remarkable example of elephantoid (papillary) hypertrophy of the skin, as a consequence of neglected eczema, in the person of a lad on the front of whose foot the skin was thickened and bossy with hard tubercular vegetations. Of this a model had been taken, which I afterwards saw in the museum. A young man in the next ward gave us a good example of the disease illustrated by the New Sydenham Society under the name of eczema impetiginoides, on the face of a young woman (Plate XIV. or XV.). The face was covered with patches of thick pus-crust, but without ulceration and without much inflammation of adjacent skin. The peculiarity of this eruption is that it comes out quickly, and usually gets well almost spontaneously. It is what Mr. Startin would call acute porrigo, and is very different in its tendencies from the other forms of eczema. M. Bazin recognises these peculiarities by giving it the name of "herpes phlyctenoides." Spontaneous curability is, I suppose, an essential feature of all forms of herpes.

A remarkable case of eczema of the nails with inverse thickening, one of tertiary serpiginous ulcer, one of albuminuria with eczema, one of "arthritic eczema" on the hands, one of common psoriasis, one of mentagra (not parasitic), and one of psoriasis palmaris from local irritation, made up the remainder of what we saw.

Certainly, I have never in England seen the same kind of detailed attention given to the diagnosis and demonstration of skin diseases. It struck me that the words "arthritic," "herpetic," "scrofulous," and the like, came in too often to allow of their having any very definite meaning, and that the remarks might perhaps be a shade too systematic, but these were very minor faults when the utmost care was given to the discrimination of elementary lesions and the detection of those little features of difference upon which the correct knowledge of these maladies must always depend.

(To be continued.)

REVIEWS.

Lectures on the Progress of Anatomy and Surgery during the Present Century. By Sir William Fergusson, Bart., F.R.S., etc., late Professor of Human Anatomy and Surgery to the Royal College of Surgeons of England. John Churchill and Sons. 1867. Pp. 302.

These lectures were fully reported in the *Medical Times and Gazette* at the time of their delivery, and now we need only welcome their publication in a separate form, and recommend them to such of our readers as have not yet studied them. As the author observes in his seventh lecture, fairly and with pardonable self-satisfaction, the history of the progress of Surgery in the present century, certainly in the last forty years, has been in so great measure the history of his own opinions and practice, that the work might have taken the form of an autobiography. Yet the author begins with a fitting tribute to his immediate predecessors, Syme, Liston, and Lizars, whilst, in every page, we meet with the generous mention of such of his contemporaries and pupils as have fairly earned laurels in the Surgical field, including Sir J. Simpson, Hodgson, Lane, Butcher, of Dublin, Wiblin, Teale, Swain, Carden, Williamson, Hart, Henry Smith, and the late Price.

The second lecture is devoted to conservative Surgery, of which he says—"With a conviction that many limbs and members had been sacrificed by amputation which might have been saved, that deeds had been done which on a superficial glance seemed as high art in our Profession, whilst in reality they were indications of very weakness, I ventured to call attention to such matters in a paper in the *Medical Times and Gazette* of January 3, 1852, wherein I first made use of the term 'Conservative Surgery.'" The word and example have borne fruit.

The Surgical reports in our columns since that date have been one record of conservatism in its various senses, of

milder and lesser operations substituted for severer, and of effectual operative cure for cases previously deemed incurable. The lectures on Lithotrity and on Excision of the Knee and other bones and joints illustrate the former, those on Tumours of the Jaws the latter, kind of conservatism. For operations improved under the light of a refined anatomical knowledge, we may refer to the lectures on Harelip and Cleft Palate, and for an example of the highest kind of common sense applied to the details of Surgery we may turn to those on "Minor Surgery," and on "Operations and Practical Surgery." The precept and example of Sir W. Fergusson given in these lectures will stimulate the young Surgeon to that minute and exact study of the elements of Professional knowledge, to which, as to careful culture, all good Surgical fruit may be traced.

RECENT WORKS ON ONCOLOGY.

The Microscope in its Application to Practical Medicine. By LIONEL S. BEALE, M.B., F.R.S., F.R.C.P., Physician to King's College Hospital, etc, etc. Third Edition, with numerous original Illustrations. London: John Churchhill and Sons. 1867. Pp. 320, 8vo.

Rodent Cancer. With Photographic and other Illustrations of its Nature and Treatment. By CHARLES H. MOORE, F.R.C.S., V.P. of the Royal Medical and Chirurgical Society of London, Surgeon to the Middlesex Hospital. London: Longmans, Green, and Co. 1867. Pp. 128, 8vo.

Clinical Illustrations of various Forms of Cancer, and of other Diseases likely to be mistaken for them, with especial reference to their Surgical Treatment. By OLIVER PEMBERTON, Surgeon to the General Hospital, Birmingham. London: Longmans, Green, and Co. 1867. Folio, pp. 128, with twelve steel engravings and many woodcuts.

THE three works whose titles are here set out embody the latest knowledge on the subject of Oncology, so far as the English school is concerned

In Dr. Beale's new edition we have, as a part of the application of the microscope to whole fields of practical Medicine, a series of illustrations of the structure of tumours of the highest character as regards copiousness and accuracy, whilst side by side are stated the broad and comprehensive theories of the origin and growth of healthy and morbid tissue with which the author has made us familiar.

Mr. Moore presents us with a valuable treatise on one branch of the subject, illustrated most effectively by the results of his own experience in the cancer wards of the Middlesex Hospital. Though the theoretical parts of the work, like his former "Essay on the Antecedents of Cancer," contain doctrines to which we cannot fully assent, still the prompt and resolute mode of treatment advocated by Mr. Moore seems really to offer a reasonable prospect of success for cases of the rodent ulcer where it is applied early enough. The doubt is whether Mr. Moore is justified in calling rodent ulcer by the name cancer—at any rate his treatment is hopeful.

Mr. Pemberton's handsome volume is a monograph of the first rank on cancer, with numerous and excellent plates. It is based entirely upon cases from his own private practice, and from the wards of the General Hospital at Birmingham. It is literally an account of what he has himself seen, with no reference to controversial matters, and no notice of the writings of others. But while Mr. Moore treats of one form only of (so-called) cancer, Mr. Pemberton's view includes the whole number of growths which go by that name.

Dr. Beale's division of tissue into "germinal matter" in which active growth is taking place, and "formed material," which is the product of that growth, is too well known to require a detailed explanation here. "Small masses of embryonic germinal matter," he says, "are to be demonstrated in all growing tissues at every period of life." They are the living store from which normal growth and development are supplied, and from which waste is repaired; and from them, he thinks, is the origin of all morbid growths. He judges it to be impossible that the anatomical elements of a *fully formed* normal tissue could give origin to a morbid growth. But suppose any one such embryonic mass, says Dr. Beale, should be irregularly and abundantly supplied with nutrient material, and sprout, as it were, into active growth when it was not required, a shapeless lump of tissue would result—in fact, a small tumour. He throws out the suggestion that irregular and increased growth may be determined by change in the distribution of nutrient matter, by irregularity of development, commencing perhaps at an early period of intra-uterine life, or by important changes having taken place in the arrangements connected with the processes of destruction and removal of tissue. Under altered conditions the germinal matter of an elementary part, or cell of epithelium, would give origin to masses differing extremely in properties from the original mass: which new formations would be able to exist under conditions incompatible with the life of those from which they sprang—nay, may acquire such exaggerated powers of growth as to move very freely and multiply with great rapidity. They invade the normal tissues, and may travel long distances along lymphatics or blood-vessels, giving rise to new growths in positions favourable for the supply of nutrient material.

The rate of growth of tumours differs to a certain extent, according as the structure to which their substance is allied is a slow or fast-growing one. But all the morbid growths increase much more rapidly than the tissues to which they respectively correspond; and the power of rapid growth increases as the multiplication of the germinal matter proceeds. The proportion of the germinal matter to the formed material is considerably greater in a quickly than in a slowly growing tumour.

Anything interfering with the regular growth of a continuously growing structure in the adult may ultimately lead to the formation of a tumour more or less closely allied to cancer. The morbid structures formed in this way, at length differ so much from the normal texture in which they originated that it is often difficult to discover any relationship; but, on the other hand, a careful examination of a vast number enables us to discover transitional differences of every degree. Moreover, tumours may change their character, so as to be called at one time benignant, and at another malignant.

Of the remedies which have been tried with the view of destroying the cancer-growth without injury to the normal tissues, Mr. De Morgan's solution of chloride of zinc has been the most successful. Carbolic acid has been shown to destroy some living particles while sparing others; and Dr. Beale's own observations show that the virus of a contagious disease differs remarkably in its vital properties and powers from that of a healthy tissue. It is therefore reasonable to hope that a remedy may be found which shall have the power of destroying the rapidly growing cancer-cell, while it leaves the normal structure uninjured; and even that the agent to be discovered may be capable of circulating in the blood, and so reaching germs which would be otherwise inaccessible.

(To be continued in our next.)

The Principles and Practice of Obstetric Medicine and Surgery. By F. H. RAMSBOTHAM, M.D., F.R.C.P., lately Obstetric Physician to the London Hospital, and Lecturer on Obstetric and Forensic Medicine at the London Hospital Medical College, etc. Fifth Edition. Revised. London: John Churchill and Sons. Pp. 752.

THIS handsome and beautifully illustrated volume has long been a favourite both with student and Practitioner, not only on account of its carefully executed plates, but on account of the sound doctrines it inculcates. Although now to a great extent withdrawn from practice, Dr. Ramsbotham has not ceased to interest himself in the advance of that branch of the Profession he made peculiarly his own, and to this edition he has made several important additions, as has been his wont as edition after edition has passed through the press. In this volume he has added somewhat to the chapter on anæsthesia, and has for the first time taken up the subject of the diagnosis of pregnancy—a matter of importance to the Practitioner, both in his legal and ordinary capacity. A lack of knowledge in this department may, in a court of law, place him in a serious predicament, and, in private practice, may lose him many a good patient. One steel plate and two woodcuts have been added, whilst alterations and emendations of the text of less importance have been effected wherever necessary.

ANOTHER case of baby-farming, in which, as usual, the unhappy infant has fallen a victim to this pernicious system, has occurred in St. Luke's. In their verdict the jury recommend that the Home Secretary should be addressed on the subject.

GENERAL CORRESPONDENCE.

SYPHILIS AND STRUMA.—IS PHTHISIS A SYPHILITIC DISEASE?

LETTER FROM MR. FURNEAUX JORDAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your last week's impression, my friend, Mr. Hutchinson, whom we have to thank for much important knowledge relating to hereditary syphilis, questions the accuracy of Dr. Jenner's views on the syphilitic origin of tuberculous and rachitic disease.

Several months ago, in an article in the *Medical Times and Gazette* (and in ignorance of Dr. Jenner's views), I stated that phthisis, caries (articular, vertebral, and otherwise), glandular swellings, and other strumous diseases might be traced to a syphilitic taint. Further experience has strengthened those opinions.

I was first led to them by accident, and without preconception or bias. Several cases were under my care of osteitis and caries of the extremities of the shafts (diaphyses) of the long bones; during the examination of one of them, it suddenly occurred to me that in all there were obvious indications of hereditary syphilis. I now turned my attention to caries of the young, which shows itself chiefly as articular or vertebral disease (explained by the smaller size of the epiphyses: in all cases the inflammation begins on the shaft side of the epiphysial line, but in adults the joints frequently escape); here the traces of inherited disease were not clearly or uniformly marked. To my surprise, however, the parents were themselves the subjects of hereditary syphilis, often on both sides, or, if on one side only, then in a very marked degree.

I long ago found, what every Surgeon has found, that cases of caries often die from phthisis, or more frequently brothers or sisters die from phthisis. These facts led me to infer, not, as is commonly supposed, that phthisis is the result of joint disease, but that phthisis and joint disease have a common cause. I now turned to the Physician's out-patient rooms for information which a purely Surgical private practice could not supply. An examination of the first twenty-five cases, as they came, compelled me and Dr. Sawyer, who ably assisted me, to adopt conclusions quite at variance with Mr. Hutchinson's. We found in the majority a marked single notch in the upper incisors; not a single case presented a healthy tooth with three cusps and two notches. Not a single case was free from an earthy tint of the complexion—in the larger number it was conspicuously present. In many, especially where the indications of hereditary syphilis were most undoubted, a parent, mostly the father, was dead from phthisis—the parent, be it noted, who had had acquired syphilis. In very many, brothers and sisters had been born dead, or had died soon after birth.

There is one fact in phthisis which I believe has never been fairly considered. Acquired syphilis is admittedly an efficient cause of phthisis. A knowledge of syphilitic families leaves no room to doubt this. Is there another known cause of phthisis? Dr. Walsh in his lectures (a pupil informs me) dismissed hygienic influences as incapable of doing more than favouring or retarding an "inherent aptitude." Mr. Hutchinson says, very truly, unfavourable hygiene cannot produce notched teeth and interstitial corneal inflammation. I reply that no degree of unfavourable hygiene can produce phthisis if the "aptitude" be wanting. Phthisis or other strumous disease in the adult is due to syphilis in a parent. We can manufacture scrofula. If we want to produce strumous disease in children, we have only to marry two persons, both having hereditary syphilis, and especially having marked earthy skins, and we shall have phthisis in one, morbus coxæ or angular curvature in another, enlarged glands or chronic hydrocephalus in another. Add acquired syphilis to the hereditary syphilis of one of the parents, and the results are still more certain.

Is it not curious that syphilis and struma (so-called) attack the same structures—the lungs, the brain, the bones, the glands, the skin? Mr. Paget describes (Holmes's "System") the tertiary ulcer and the strumous ulcer (unconsciously, and therefore, the more significantly) in terms singularly alike—more so, indeed, than we could expect, seeing that struma is not actual, but only filtered syphilis. If acquired syphilis certainly produces caries, phthisis, enlarged glands, etc., may not transmitted syphilis be an efficient cause of caries, phthisis, glandular enlargements, etc.? If acquired syphilis be a cause of phthisis and caries, the causal efficiency of transmitted syphilis should be disproved before we wander into the wilderness of bad air, food, etc. Take the child of two parents, both with three-cusped incisors and clear, bright, ruddy skins, and it cannot be made phthisical or strumous; it may be killed by many destructive agents, though this is difficult, but it cannot be made strumous.

No doubt there are many persons with extremely well-marked signs of hereditary syphilis, yet in possession of robust health. Such cases are easily explained by the fact that they were more conspicuously syphilitic at birth, and were consequently treated with mercury—and there is nothing in sacred or profane history more like a miracle than the action of mercury in hereditary syphilis. The milder cases do not attract so much attention; they escape treatment, and they consequently become strumous.

Lastly, where civilised life extends on the surface of the earth, there syphilis goes and phthisis follows. If some Physician, with more leisure than I possess, would inquire into the spread of syphilis and struma, the interests of science and curiosity would alike be served. If syphilis shall be shown to prevail in certain parts of the world where phthisis is unknown, I shall be greatly surprised if phthisis shall be shown to prevail where syphilis is unknown. I will readily confess that I have made a mistake. I am, &c. FURNEAUX JORDAN.

Colmore-row, Birmingham, December 21, 1867.

POSITION IN THE REDUCTION OF INGUINAL HERNIA.

LETTER FROM DR. BOND.

[To the Editor of the Medical Times and Gazette.]

SIR,—Several years ago, I had a case in which the patient could not reduce an inguinal hernia while lying in bed either on his side or his back, but as soon as he stood on his feet there was not the least difficulty. If, on removing his truss before going to bed, he neglected to apply his hand to the part and allowed the rupture to protrude, he had always to get up on his feet before he could reduce it. Soon after this, I was called to a case of strangulated inguinal hernia. After making every effort in the usual way to reduce it, I directed the patient to stand up; I placed myself (also standing) behind him, and encircled his body with both my arms, grasped the tumour with both hands, and effected in a few minutes what I had failed to accomplish in as many hours. Since then, I have had many cases of inguinal hernia in my own practice, and several where I have been called in consultation, and have never failed to effect a reduction in a few minutes in the way I have described. I have never seen this means tried in the Hospital in Philadelphia nor in the London Hospital, although in both these institutions I have repeatedly seen all efforts fail to reduce an inguinal hernia without an operation. Nor have I ever seen it recommended in any Surgical work.

My object in sending you this communication is to ask my Medical brethren of the metropolis to give the erect posture in the reduction of inguinal hernia a fair trial, and to publish the results. In femoral hernia the erect posture has never succeeded in my hands—in three cases I have been obliged to use the knife—in inguinal never. I will not attempt to account for the use of the erect posture in the reduction of inguinal hernia, nor for its failure in femoral. It may be thought that the erect posture favours reduction by causing syncope, but in only two cases do I remember that a feeling of faintness was complained of. In the last case (only a few days ago) the patient, an old man, fainted and fell as soon as the gurgling began to be felt, and I finished the reduction whilst he was prostrate.

By giving this paper an early insertion in your valuable publication, which sometimes reaches even this remote corner of the world, you may perhaps serve the cause of suffering humanity. I am, &c.

JOSEPH B. BOND, M.D.

Yarmouth, Nova Scotia, October 30.

A HINT TO YOUNG MEN ON THE FIELD FOR PRACTICE IN THE SPANISH WEST INDIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having lately returned to England after a residence of some years in the Spanish West Indies, I beg to offer a few

remarks which may prove useful to any young Physician who might be induced, either from the love of gain or curiosity, to practise amongst the *caballeros* and *senoritas*.

In England it often requires the patience and endurance of many years to enable a Medical man to establish himself in any locality he may select, and it often happens that, after having exhausted his resources in the useless struggle, he is compelled to give up the trial with disgust, while some rival, not possessed of one half his abilities, but of an abundance of tact and cunning, gains the day and carries all before him. Now the contrary obtains in the Spanish West Indies. The newer the man, the larger is the concourse of patients, all hurrying to inquire and ascertain what he is made of. Should his treatment prove immediately successful, his fame spreads with extraordinary rapidity, and he soon stands in a fair way of making an independence; but should his practice be unsuccessful, his first month's practice amongst the dons will assuredly be his last. The cases that usually present themselves are such as are peculiar to the tropics, modified according to locality, etc.—intermittent of every type, and its frequent sequelæ liver disease and dysentery, yellow fever, rheumatism, syphilis, etc. One great object in these islands is to produce, if possible, some immediate and visible effect in our practice; and although we are accustomed to look upon the Spanish West Indian race as far behind us in civilisation, yet in matters of disease and its treatment they possess considerable experience and penetration, and cannot easily be deceived.

I do not presume to possess knowledge superior to that of any of my fellow Practitioners, although a long residence in the East Indies and other tropical climates may have given me certain advantages over my younger friends, but it has occurred to me not unfrequently, after having one entire day most assiduously attended a patient, but unfortunately with little success, to find myself relieved by another Physician, without having received any previous notice. The same fate would inevitably fall to the lot of my successor should Nature not assist his efforts, until at length the patient recovers or dies, when the last Medical attendant will be doomed to enjoy the fame of having cured him, or suffer the penalty of having killed him.

So long as a Physician can maintain his position and fame, he is a general favourite; as no man is more keenly alive to his interest than the native, and although hospitable and, with few exceptions, honourable in his payments, he takes good care to court the rising sun, and turn his back on the setting one. Great opportunities present themselves to an active and intelligent young Physician who desires to pay a visit to the Spanish West Indies. On his arrival he must pay a visit to the authorities and present his credentials and diplomas; these are submitted to a Medical board, and if approved, a day is fixed for an examination. This is conducted with considerable fairness by men of considerable skill and ability, and diplomas in Spanish are granted. One or two letters of introduction may be useful, but too many may prove a bad speculation, as the protecting geniuses who receive such letters seldom pay for the services of their *protégé*.

Should you have no objection, Sir, I may on a future occasion send you a short sketch of the treatment I have found most successful in the diseases most common to the Spanish West Indies, which may serve as a guide for any young Practitioner who, impatient of the time necessary to establish a practice at home, wishes to go where he might display his abilities quickly and with great advantage to himself. I would recommend him the island of Cuba, which contains many important and flourishing cities, as Havanah, St. Jago, etc. There every man and woman dabbles in medicines, and really their curanderos well skilled in the qualities of the indigenous Medical herbs perform extraordinary cures. I would advise him to treat the Spaniard with a distance and respectful reserve, pay few visits beyond the strictly Professional, keep himself to himself, never meddle in the politics or affairs of the country; and above all things eschew what proves to be the ruin of all foreigners — habits of intemperance. I am, &c. MEDICUS.

Redcliffe-road, West Brompton.

RECOGNITION OF DR. SOUTHWOOD SMITH'S SERVICES.—Our readers will be glad to see that the daughter of this eminent and philanthropic Physician has received a small pension from the civil list, in acknowledgment of her father's long and unremunerated public services.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 10, 1867.

MR. SAMUEL SOLLY, F.R.S., President, in the Chair.

Dr. GEORGE JOHNSON read a paper

(1) ON CERTAIN POINTS IN THE ANATOMY AND PATHOLOGY OF BRIGHT'S DISEASE OF THE KIDNEY; AND (2) ON THE INFLUENCE OF THE MINUTE BLOODVESSELS UPON THE CIRCULATION.

It is now generally admitted that cases of chronic Bright's disease may be arranged in two distinct classes:—1. Cases in which the kidney is large, pale and smooth on the surface. 2. Cases in which the kidney is small, red, and granular. In the forty-second volume of the *Medico-Chirurgical Transactions* the author pointed out the chief features by which the two classes of cases may be distinguished. There is some difference of opinion with regard to the anatomy and pathology of the various forms of Bright's disease. Some pathologists maintain that the small granular kidney is the result of an intertubular deposit. The author maintains that there is no proof of such deposit; while the red colour and the vascularity of the kidneys seen in an advanced stage afford proof that no such deposit exists. All the essential changes in this disease are intra-tubular. In the 33rd volume of the *Transactions* the author first noted the fact, that in all the forms of chronic Bright's disease the muscular walls of the minute renal arteries are hypertrophied. He then supposed that this was the result of an effort to propel the blood onwards. It is now generally admitted that the minute arteries act as stopcocks; that they regulate the blood supply, but they have no propelling power. The explanation of the hypertrophy of the small renal arteries which is most in accordance with the facts is that, in proportion to the destruction of the renal gland cells, there is less demand for blood to be acted upon by the gland; the renal arteries consequently contract upon their contents so as to maintain the balance between the blood supply and the diminished secretory action of the kidney. This continued overaction of the small arteries in antagonism to the heart results in hypertrophy of their muscular walls. In the advanced stages of some forms of chronic Bright's disease the walls of the arteries as well as those of the Malpighian capillaries assume a white and wax-like appearance—a result probably of infiltration of albuminous or fibrinous materials into the tissues. This appearance of degeneration is secondary, and not essential. It has long been known that the left ventricle of the heart is hypertrophied in nearly all cases of chronic Bright's disease. This is believed to result from the resistance offered by the small arteries throughout the body to the passage of blood contaminated with urinary excreta. The muscular walls of the arteries have been found hypertrophied in the brain, in the pia mater, and in the intestines of those who have died of chronic Bright's disease, and it is probable that this anatomical evidence of arterial resistance to the circulation in these cases will soon be much increased. Reference was then made to the experiments of Hales upon animals recently killed, as well as to those of Blake upon living animals, to prove the influence of the minute arteries upon the circulation. The sudden arrest of the circulation through the lungs by the admission of atmospheric air into the veins, and the impediment to the pulmonary circulation in cholera, are both referred to the same cause—namely, contraction of the small arteries upon their contents. Again, some of the phenomena of apnœa admit of complete explanation only by reference to the contraction of the small arteries. A dog was killed by a ligature on the trachea. The chest being opened, immediately the right heart was distended, the left nearly empty. The lungs were pale, nearly bloodless, and extremely collapsed. The minute pulmonary arteries must have arrested the mass of the blood before it reached the capillaries. A comparison of the phenomena of apnœa with those of renal disease appears to warrant the conclusion that an impeded circulation, the result of arterial contraction, may occur under two different conditions:—1. When the respiratory changes in the lungs are impeded, or when the secretory action of a gland, such as the kidney, is impaired, the minute arteries of the lung or of the kidney, in obedience probably to a stimulus conveyed to them through the nerves from the capillaries, restrict and retard the blood-stream. The anæmia of the pulmonary capillaries in

cases of acute apnœa, and the overgrowth of the muscular walls of the renal arteries in cases of chronic Bright's disease, are results of one and the same physiological principle. 2. The minute arteries in any part of the body may be excited to contract by their contents becoming abnormal, and therefore more or less noxious to the tissues. We have an illustration of this in the resistance which the systemic arteries offer to the passage of unaerated black blood, and of blood contaminated with urinary excreta. We have another illustration of it when certain foreign materials are either accidentally in man, or designedly in animals, introduced into the veins, and then arrest the flow of blood through the lungs. The late Dr. Alison and many other pathologists have taught that the minute bloodvessels have the power to antagonise the heart and to check the circulation. This power of resistance has been almost universally believed to reside in the capillaries, which have no contractile power; while the stopcock action of the small arteries, with their contractile muscular walls, has been almost ignored by pathologists. One of the main objects of this communication has been to direct attention to this action of the small arteries in various pathological states of the system, and to adduce anatomical as well as physiological evidence of its reality and its powerful influence.

The PRESIDENT thanked Dr. Johnson for his admirable paper. The importance of his investigations into the muscularity of the minute arteries could not well be overestimated.

Dr. PAVY was highly pleased with Dr. Johnson's paper, nevertheless he must beg leave to dissent from certain statements contained in it. The gist of the paper was to throw on the minute arteries that function which physiologists are accustomed to assign to the capillaries. Dr. Johnson had not proved this to his satisfaction. The entrance of air into the veins caused arrest of blood in the lungs: was it in the minute arteries or in the capillaries? He held that the changes which take place in the capillaries materially affected the passage of the blood through them. In asphyxia, Dr. Johnson says that the black blood causes contraction of the arteries. What proof is there of its not being due to stoppage in the capillaries, owing to an arrest of the transformations ordinarily accomplished there? In reality, however, black blood would flow through the vessels even in asphyxia, for he had found a chemical material might thus pass from one side of the heart to the other.

Dr. DICKENSON, while acknowledging the value of Dr. Johnson's paper, could not agree with him on all points, as, for instance, when he denies the existence of disease in the intertubular areolar tissue of the kidney. Why should this tissue be thus insusceptible of disease when elsewhere it was so liable to it? The granular form of kidney he believed to be due to a pseudo-inflammatory change. Between two granulations, one could always discover a shred of fibrous tissue still unchanged, not broken-down renal structure. The red colour, he held, depended on vascularity of the new formation, which, although it thus contracted, never compressed the larger arteries. Dr. Johnson maintained that the granular casts were of epithelial origin; he thought they were rather disintegrated fibrin, for he had been able to produce the same microscopical appearances by soaking fibrin in water. He had also shown, by passing water through the kidneys, that the obstruction was greater in the small granular kidney than in the large white one.

Dr. SANDERSON, after expressing his admiration of Dr. Johnson's paper, and his sense of the importance of his conclusions as to the part played by the capillary arteries in disease, adverted to the recent researches of Professor Ludwig and Dr. Cyon, which had for their object to determine whether the excitation of certain sensory nerves has any influence on the arterial pressure through the vasomotor nerves. Several sensory nerves were experimented on, but especially the cardiac branches of the vagus. In the rabbit, there is a nerve which, leaving the vagus high up in the neck, passes downwards between it and the sympathetic towards the stellate ganglion and ends in the heart. On exciting the peripheral end of this nerve after division in the neck, no effect is produced on the circulation; but if the central end is faradised, the arterial pressure sinks. The depression amounts to two or three inches of mercury. It is so marked that it can be made out independently of the manometer. The arteries visibly contract, and if the belly is opened during life the surface of the kidneys is seen to become brighter. At the same time, the pulse becomes slower in consequence of reflex excitation of the vagus, for this last effect is absent if the vagi have been previously divided. These experiments were made in animals under various conditions—*e.g.*, before and after section of both vagi, after removal of the sternum, under the influence of woorara, etc. The experiments showed that the excitation of this sensory nerve alters the balance of the circulation—increasing the quantity of blood in the veins, decreasing that in the arteries. It remained to show whether the influence was exercised on the heart or the capillaries. This was done (1) by previously destroying the stellate ganglion, and thus isolating the heart from the nervous centres and dividing the vagi, when it was found that in animals so treated the effect of stimulating the cardiac branch in the neck was unaltered; and (2) by repeating the experiment after division of the splanchnic nerves. In this experiment of division of the splanchnic nerve, Ludwig and Cyon found, as had been found before, that the arterial pressure was lowered, in consequence of the paralysis of the capillary arteries of the kidneys and other abdominal viscera. In such an animal, scarcely any effect was produced by excitation of the central end of the cardiac branch of the vagus. Thus it appears that in the reflex arrangement by which the arterial pressure is governed, the principal afferent nerves are associated with the vagus, the chief motor nerve being the splanchnic. But the most interesting result of all is that the arterial pressure is governed not by the capillaries of the whole body, but by those of the abdominal viscera—a discovery which throws much light on the way in which the changes believed by Dr. Johnson to exist in Bright's disease may affect the arterial pressure. With reference to the phenomena of apnœa, referred to by Dr. Johnson in illustration, Dr. Sanderson remarked that the extreme pallor of the lung observed in dogs asphyxiated by occlusion depends in great measure on the quantity of air that happens to be in the chest at the time the trachea is tied. He had ascertained by experiment some years ago, that if, at the moment of occlusion, the chest be filled with air, the lungs are found extremely white after death; in the contrary case, more or less hyperæmic. Secondly, he affirmed that it is not the case that the circulation of unaerated blood increases the arterial tension. In ordinary apnœa, the arterial tension rises during the second minute after occlusion, because the animal struggles; it falls the moment the struggle ceases. The fact that an animal suffocated under the influence of woorara, when all muscular action is in abeyance, excepting the contraction of the heart and capillary arteries, the phenomena is not observed, cannot be explained, as suggested by Dr. Johnson, as dependent on the paralysing action of the poison on the capillary arteries, for there is evidence that these vessels are as exempt from its influence as the heart itself.

In reply, Dr. JOHNSON stated that he was under the impression that he gave the ordinary view when he stated that the minute arteries regulated the flow of the blood, although Dr. Pavy objected to the statement. As for Dr. Dickenson's objections with regard to the intertubular tissue, some held that there was no such substance, whilst his experiment of passing water through the kidney was of doubtful value. Speaking of Dr. Burdon Sanderson's objections, Dr. Johnson mentioned that his statements were founded on Dr. J. Reid's experiments, whilst certain of Dr. Sanderson's doctrines were completely opposed to those of Bernard.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 17, 1867.

J. SIMON, Esq., President, in the Chair.

REPORTS were read by Mr. Bruce on Mr. Nunn's case of cancer of the bladder, and by Dr. Dickenson on Dr. J. Ogle's case of spinal tumour, which was pronounced to be non-malignant. Dr. H. Greenhow read a report on Sir Duncan Gibb's case of supposed disease of the supra-renal capsules; these, however, were pronounced to be perfectly healthy.

Mr. SOELBERG WELLS then proceeded to detail a case, and exhibit a specimen, of

TUBERCLE IN THE CHOROID DIAGNOSED DURING LIFE.

This rather uncommon affection had engaged more attention lately, and seven cases had been narrated by Cohenheim; the case brought before the Society was, however, the first of the kind diagnosed during life in England. The patient suffered from acute miliary tubercle, with consequent emaciation and fever. The sight was good; but on examination by the ophthalmoscope, although the refractive media were healthy, sprinkled in the choroid, especially about the optic disc, a

number of small greyish-white nodules were seen. There was no choroiditis. After death the lungs and kidneys were also found infiltrated with tubercular matter. The practical bearing of the case was on the possibility of discovering the existence of acute tuberculosis during life by means of the ophthalmoscope.

Dr. Moxon showed a specimen of

THROMBOSIS FROM THE SAPHENA AND FEMORAL VEINS,

occurring in a patient suffering from typhoid fever. Pain began in the inside of the right thigh and in the left saphena. The veins also became hard and painful. One day, when raised on a bed-pan, the patient turned suddenly ill, and died in about three minutes. The face was not livid, and the heart was sound; but the pulmonary artery in its primary divisions was blocked up by a clot, partly red, partly colourless. Ulcers were found in the ileum, and the coats of the veins were reddened.

Dr. Murchison said it was unusual to encounter such an event in fever, although it was common enough after fever to find swelling of one leg as the result of phlebitis. Curiously enough, it was the left leg which was almost invariably attacked; of this he could give no explanation.

Dr. Moxon next proceeded to exhibit the

KIDNEYS OF A PATIENT WHO DIED OF BRIGHT'S DISEASE.

Two months before death a uræmic convulsion had occurred, and death had been considered imminent; yet she recovered. The two kidneys were of different sizes—one large and white, the other small, but presenting certain ecchymotic patches in its lower portions. On opening the aorta, the orifice of the renal artery on this side was found to be nearly plugged up, and he was inclined to attribute the integrity of the kidney to this limitation of its supply of blood, for there was no abnormal artery.

Mr. Bryant remarked that the case was interesting from a Surgical point of view, as it bore upon the question of tying arteries leading to the sites of acute inflammation, elephantiasis, etc.

The President asked if the appearances were not capable of a clean contrary interpretation.

Mr. Wagstaffe exhibited a

RENAL CALCULUS

removed from the body of a patient under Dr. Goolden, who had died of heart complaint. Blood had been passed in his water for a day or two before his death only. On examination the liver was found to be diseased, and the enlarged pelvis of the kidney to be filled with a branching calculus, consisting apparently of five different kinds of material. On examination, it proved to be almost entirely composed of carbonate of lime, with a little ammonio-magnesian phosphate—a very unusual composition.

Mr. Spencer Watson showed an

ORBITAL EXOSTOSIS

which had been removed by Sir William Fergusson. The tumour, having partly an ivory and partly a bone-like structure, was found to be attached to the sphenoid and ethmoidal bones. By its help, as there appeared to be a kind of articulation of the two substances, might be explained sundry cases where loose ivory-like masses were found in the bones of the face or orbit.

Dr. Fowler exhibited a heart affected with

FIBROID RESEMBLING FATTY DEGENERATION.

The subject came to the casual ward of the East London Union, ate his supper, and retired to rest in good spirits. A few minutes after he was reported to be in a fit: he lived about ten minutes. On examination all organs were found healthy, except the heart, which appeared in certain situations to be completely converted into fat. He considered the time occupied in dying as of great importance from a Medico-legal point of view.

Specimen referred to Drs. Wilks and Bastian.

Dr. Hillier exhibited a boy suffering from

PARALYSIS, WITH HYPERTROPHY

about to pass into the stage of atrophy. He did not walk till he was 21 months old, and even then imperfectly. He walked best when about 6 years old, but cannot stand or walk now; his arms are also gradually becoming powerless. He has had no fits or other severe illness.

Mr. W. Adams suggested that his urine should be examined. That of some of his patients had been examined by Dr. Richardson, who had found a large quantity of inosite in it.

Dr. Hillier also exhibited another patient suffering from

LOCALISED MUSCULAR ATROPHY,

where the muscle and skin wasted in certain parts of the body after typhoid fever. The left buttock was first affected with wasting and quivering, then the left forearm and left shoulder, especially the deltoid; the right leg also became affected. There is now some appearance of wasting in other parts on the right side of the body. The skin over these spots had a peculiar mottled appearance.

Mr. Henry Power remarked that Schiff had shown that quivering of a part followed division of its motor nerves.

Mr. Bryant showed a most peculiar

TUMOUR, PROBABLY MALIGNANT,

removed from beneath the scalp of a boy aged 16. Four years ago the tumour appeared, by-and-by it diminished, but had again considerably increased when he came into Hospital. It was lobulated and movable, and the skin was free. He looked on it as a simple swelling, but some time ago one somewhat similar had turned out malignant. On removal it was found to adhere very closely to the pericranium. Dr. Moxon had examined it, and would speak to its microscopical structure.

Dr. Moxon stated that the tumour appeared to consist of several distinct layers, but that the superficial appeared to be the most peculiar. It looked like a bag of worms, which on examination turned out to be capillaries, with cancer-like elements in their interstices. Referred to the Committee on Morbid Growths.

Mr. Bryant also showed a

TUMOUR OF THE LEG

removed from a woman, aged 57, who had suffered from pain in the fibula for the last twelve years; sometimes it was very bad, sometimes it completely disappeared for months. Amputation was performed, and the bone was found to be broken by the swelling, which looks fibro-plastic.

Mr. Holmes said that a somewhat similar case had been in St. George's Hospital under Mr. Tatum. Here also the fibula was found divided; the whole was removed, and the wound healed well. The patient has not been heard of for a year or so.

Dr. Phillips exhibited two curious specimens of

MALFORMED FŒTUSES.

One had no anal aperture, but a kind of pouch below the urethra. The large intestine opened into the bladder. The other had nearly all the viscera outside, the abdominal wall being deficient, and had a large spina bifida. The organs of generation were apparently partially hermaphroditic. In it also the large intestine opened into the bladder.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 26, 1867:—

Henry Hungerford Bulford, Hamilton-terrace, N.W.
James Robert Haynes, Chipstone-street, W.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Critchett, Frederick, M.B., has been appointed Medical Registrar at St. Thomas's Hospital.

Wadham, W., M.D., has been appointed Physician to St. George's Hospital.

BIRTHS.

Balling.—On December 24, at Shefford, Beds, the wife of C. C. Balling, M.R.C.S., of a son.

Chamberlen.—On December 14, at 24, Sutherland-street, S.W., the wife of Leonard Chamberlen, F.R.C.S.E., of a son.

Cresswell.—On December 27, at South Norwood, the wife of A. Cresswell, L.R.C.S.I., of a daughter.

Lees.—On November 21, at St. Mark's, Siuda, the wife of Dr. L. H. Lees, of the Indian Medical Service, of a son.

Lewis.—On [illegible], at Hamilton-terrace, the wife of W. T. Lewis, M.R.C.S.E., of a daughter.

McCann.—On December 18, at Mildenhall-road-Terrace, the wife of Dr. McCann, of a son.

Orde.—On December 24, at Somerhamhall, the wife of W. M. Orde, M.B., of a daughter.

MARRIAGE.

Wood—[illegible].—On November 25, at Trinity Church, Aldershot, D. D. Wood, [illegible] H.M. [illegible] Regiment, to Constance Emily, youngest [illegible] of the late C. H. Smith, Esq., of the Bengal Civil Service.

DEATHS.

BOWER, R., M.D., at Tollington-park, N., on December 27, in his 78th year.
FORSTER, R. D., M.R.C.S.E., of London, at Findrasse House, near Elgin, on December 16, aged 62.
GAITSKILL, J. A., M.D., at Monmouth, on December 16, aged 84.
POOLE, Dr. C. A., Surgeon H.M. 27th Regiment P.I., at Peshawur, Bengal, on November 13, aged 39.
TURNBULL, W. M., M.D., at Melbourne, Victoria, on October 3, aged 47.

VACANCY.

CHARING-CROSS HOSPITAL MEDICAL COLLEGE.—Chair of Physiology.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Hailsham Union.—The Sixth District is vacant; area 6016; population 1600; salary £25 per annum. Also the Workhouse; salary £35 per annum.

APPOINTMENTS.

Mansfield Union.—James Macnamara, M.R.C.S.E., L.S.A., to the Second District.

Wigan Union.—Edward H. Beaman, M.R.C.S.E., L.S.A., to the Upholland District.

THE HEALTH OF THE PRINCESS OF WALES has so much improved that her Royal Highness was enabled to attend service on Christmas-day at the church in the park at Sandringham.

MR. GLADSTONE'S ACCIDENT.—The assertion made by some of the morning journals that the accident to the Right Hon. W. E. Gladstone was of a serious nature is without foundation. Mr. Gladstone was struck in the left eye by a splinter from a chestnut tree which was being "felled." The blow produced some temporary irritation, preventing the use of the eye, but we are happy to state that even this inconvenience has now been all but got rid of.

THE SEBASTOPOL GRAVES have been placed under the superintendence of Colonel Gordon at Constantinople.

EXTRACT OF MEAT FOR ABYSSINIA.—The Government has contracted with Liebig's Company for a supply of their "extract" for the troops. Each soldier will be provided with a number of small jars, which can be easily carried.

THE FENIAN EXPLOSIVE PACKETS, which have produced such a sensation lately, are composed, it is said, simply of fulminate of mercury.

THE NEW VACCINATION ACT.—On New Year's day the Act to amend the laws of vaccination, which was passed in August last, came into force. Its provisions involve some alterations of importance. In unions and parishes not already divided into vaccination districts, the guardians are empowered by the Poor-law Board to contract with Medical Practitioners to discharge the duties of public vaccinators, the qualifications of such officers to be submitted to the Privy Council for recognition. The fees to be paid are 1s. 6d. for each case within a mile of the vaccinator's residence; 2s. under two miles, and 3s. above that distance. The new regulations deserve the careful attention of the Profession.

ANTISCORBUTICS FOR WHALERS.—The proprietors of some whaling vessels have absolutely had the coolness to petition the Board of Trade for exemption from carrying lime-juice and other antiscorbutics. We are glad to find that such an extremely objectionable concession has been refused by the authorities, who have determined that the crews of whalers shall at least be placed—*quoad* lime-juice, etc.—on an equal footing with those of other vessels. To prevent scurvy, the first thing is, doubtless, as Dr. D. Stone has lately impressed on the readers of the *Times*, to obtain a good supply of vegetable diet; but, lacking this, lime-juice has stood the practical test too long to be wilfully discarded.

A MEDAL TO MR. CONDY.—The antiseptic and disinfectant qualities of "Condy's fluid" are so favourably and universally known to the Profession that our readers will not be surprised to learn that its inventor has been awarded the bronze medal of the *Société de Secours*. The medal, which we have seen, is, although small, of that *recherché* character which stamps all French works of art. It is accompanied by a testimonial signed by the Commissary-General of the French International Exhibition, and given "*au nom de la conférence des sociétés de secours aux militaires blessés des armées de terre et de mer.*" We have equal satisfaction in calling attention to the Association and to its recognition of the benefits our countryman has conferred on sanitary science.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN DECEMBER, 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition (a)	Oxidisable Organic Matter (b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction	19·63	1·64	0·67	12·5	3·5	0·004
West Middlesex	20·40	0·85	0·38	13·0	4·0	0·003
Southwark & Vauxhall	—	—	—	—	—	—
Chelsea	19·40	1·95	1·15	11·0	3·0	0·005
Lambeth	19·00	1·75	1·15	12·0	3·0	0·005
Other Companies.						
Kent	27·33	0·68	0·06	16·5	7·5	0·003
New River	19·67	0·73	0·19	13·5	3·0	0·003
East London	21·57	1·00	0·54	13·5	3·5	0·003

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

A Clinical Report of the Obstetric Department at St. Bartholomew's is in type, and will appear next week. It is the first of a series which we propose to devote to that important but insufficiently noticed branch of practice.

Papers by Dr Junker, Dr William Bence, Dr W. Roberts, Mr T. Green, Dr. J. Lowe, Dr W. Proctor, and a Review of Naquet's important work on Chemistry are in type, and will shortly appear.

Dr. Foggo.—The P.O. order has arrived.

Zeta.—1. Varicose veins of the lower extremities, unless quite curable by operation, would disqualify for the Civil Service of India. 2. Ure's test: Powdered hydrate of potash, added to alcohol, containing wood spirit, causes it to become brown within half an hour. Also, there is a process with bichromate of potash and sulphuric acid, recommended by Mr. J. T. Miller, *Pharmaceutical Journal*, 1855-56, vol. vii. p. 318.

L.S.A., Perpetual.—Dr Thomas Fuller died in 1734. There is a portrait of him in his "Pharmacopœia Domestica." He was a great wit, and wrote the following lines on a left-handed writing master:—

"Though Nature thee of thy right hand bereft,
Right well thou writest with the hand that's left."

Arts Examinations.—Correspondents who have addressed us on this subject should write to the Secretary of the College, from whom we learn that the report will be received in about a fortnight.

H. M., R.N.—The trustees of the British Museum appoint the lecturer, who must be an M.D. of Edinburgh. You will find an account of the Swiney lectureship and prize in the *Medical Times* of April 14, 1849, and subsequent numbers. Dr. Taylor for his work on jurisprudence.

F.R.C.S., Manchester.—The Hunterian oration is now delivered biennially. It is stated that Mr. Quain has consented to deliver the next, when, for the first time since its establishment in 1814, the orator will in all probability be the President of the College also. Mr. Partridge will be the Chairman of the Fellows' Festival in July, after the annual election.

REMUNERATION FOR CLUB DOCTORS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am sorry that I am unable to pay your "admirer" from Birmingham anything like a compliment on his skill in perception of character; for though he has discovered with so very little difficulty that I am one of the kid-and-lavender school (whatever that may really mean), he will doubtless be somewhat astonished at learning that I am a club Surgeon to some 650 members belonging to different societies, at rates of 2s. 6d. to 4s. each, and composed almost entirely of agricultural labourers. I have also about 240 railway navvies at 6s. per annum, a large Union district of some 23,000 acres, and a fair country practice besides; and have been in the same village for upwards of eleven years. Hence I have some claim to a practical acquaintance with the subject on which I have undertaken to enlighten the public, and have, or ought to have, some sympathy with my companions in similar circumstances.

From what seems to have been accomplished in Birmingham, your admirer will perceive that there is a great difference between the manner in which the Doctors there have gone to work, and the plan adopted by our neighbours in Chester. Here they combine together and make a trade price of 4s., below which no member shall take a club. From the statement made of the position of the Birmingham club members, it is evident to me that the Chester rate would be far too low for them; further than this, however, I should like to go, and am bound to say that I think that men in such a position should have no club Doctor at all. I hope the day is not far distant when contracts for Medical attendance shall be recognised for none other than those who depend also upon a club for actual maintenance when in ill health.

I dare say that your admirer and myself are equally anxious to get a fair reward for our services, and if he will observe I did not assert that 2s. 6d. was a reasonable or unreasonable price, but said it was satisfactory to our position to meet together and fix a price below which no club should be taken, and further to insist that all clubs then contracted for should be raised to the 4s. standard at the end of the current year. I believe that I am correct in saying that Dr Heslop in his address did not advise this kind of combination against clubs, but that in different districts we should meet and act together so that the rates agreed upon in different cases might insure efficient attendance. This can only be done by taking each club separately into consideration; for even in the same district the status of members composing different clubs is subject to great variety. One may be a sick club composed mainly of agricultural labourers; another may be a Lodge of Druids, and, being more respectable, numbers amongst its members publicans, farmers, and master tradesmen mostly. To meet this variety of cases I would advise a consultation on the part of Doctors, to act together as gentlemen, and not as tradesmen. Thus, when a club is resigned because the rate is not remunerative, there should not be that competition to accept it at such a rate, but having heard the reason why it was resigned, a committee might decide at about what increase the members might be efficiently attended, and might recommend to the managers of such club that such increase be offered. The managers of a club could have access to the meetings of the Medical committee on the arrangements connected with their own club being under consideration. I am quite aware that there are many difficulties to be met in carrying out any satisfactory arrangements, and should be very glad at seeing others more competent than myself offering their opinion.

I am, &c. A CORRESPONDENT.

DR. T. BRIDGE ON THE DEODORISING QUALITIES OF DRY EARTH.

(Read before the Metropolitan Association of Medical Officers of Health.)

It is a trite saying that "there is nothing new under the sun," and in applying the adage to the important facts brought forth by the Rev. Mr. Moule on the deodorising properties of dry earth, I would not for a moment be thought to attempt to deprive him of the merit of originality or of a most beneficial application of those facts. But it will perhaps somewhat surprise the Association that these properties have been known to the Italians at least to the inhabitants of the island of Capri, for a long period, perhaps for ages. During the summer of 1860 I occupied a villa at Capri situated on a low cliff bordering over the sea. Cholera was rife in Naples and other parts of Italy, and during the intense heat of August was creeping over the Sorrentine peninsula. Believing that the lovely island in which I and my family had fixed on for a time, at least would scarcely escape the dreaded visitation, I naturally commenced to set my house in order and also endeavoured to excite the authorities of the place to look into sanitary matters. At the back of my villa, and separated from it by a few yards, was a common privy for the use of the domestics, communicating with a large cesspool which had not been emptied for years. I sent for a poor labouring man who had a small vineyard, and arranged that the contents should be speedily carried away. Happening to mention that I should remove my family for the time to a friend's house to avoid the smell, he said emphatically, "Why should you do that? There will be no bad odour. Wait and see." Seriously doubting his statement I sent my family to an open terrace over the sea, and was a curious spectator of his proceedings. He and his daughter commenced to form a mound close to the cesspool of the dried-up surface of my small barren garden. The earth is calcareous, mixed with volcanic tufa, which latter is found at intervals on that part of the shore. He next dug a fosse to the bottom of the cesspool, and thence made a small hole into it. As soon as the contents began to issue forth he mixed them rapidly and thoroughly with the dry earth to a moderately stiff consistence, and when the operation was completed he threw dry mould over the mixture and the walls of the receptacle. The result was perfect, and the mixture was carried away at their leisure without the least annoyance from bad odour. The old man declared that he, and his father before him, had always known that dry earth destroyed the smell of the soil from cesspools.

COMMUNICATIONS have been received from—

Dr. GERVIS; Mr. CHAPMAN; Mr. R. ADAMS; W. A. J.; A CORRESPONDENT; Mr R. BRYDGES; Dr. RALFE RICHARDSON; Mr. FLEMALVN JOPLIN; Mr JONATHAN HUTCHINSON; LONDINENSIS; Mr CONSTABLE; Mr HENRY COOPER; Professor SIMPSON; Dr B. W. RICHARDSON; Dr BARNES, Mr. CRATO; Dr. HUGHLINGS JACKSON.

BOOKS RECEIVED—

Barker on the Climate of Worthing—Smith on Surgery of the Rectum—Kay-Shuttleworth's First Principles of Modern Chemistry—Wood's Bible Animals, Part 1—Fitzgerald on Cholera—Letts's Diaries.

NEWSPAPERS RECEIVED—

Brighton Gazette—Jamaica Gleaner—Colonial Standard.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 28, 1867.

BIRTHS.

Births of Boys, 887; Girls, 814; Total, 1701.
Average of 10 corresponding weeks, 1857-66, 1744·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	724	709	1433
Average of the ten years 1857-66	729·0	729·7	1445·7
Average corrected to increased population..	..	..	1595
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,888	1	9	3	..	18	2	3	..
North ..	618,210	7	5	10	4	5	20	4	..
Central	378,558	2	8	4	3	6	6	1	..
East ..	571,158	..	8	3	2	8	13	1	..
South ..	773,175	7	29	10	3	18	11	2	..
Total ..	2,805,000	17	59	30	12	55	52	11	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·150 in.
Mean temperature	37·2
Highest point of thermometer	44·9
Lowest point of thermometer	29·4
Mean dew-point temperature	35·4
General direction of wind	Variable.
Whole amount of rain in the week	0·01

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 28, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Dec. 28.	Deaths. Corrected Average Weekly Numbers.*	Deaths. Registered during the week ending Dec. 28	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3082272	39·5	1701	1421	1433	49·9	29·4	37·2	0·01	1
Bristol (City) . .	165572	37·3	91	74	‡68	50·8	29·5	39·0	0·11	11
Birmingham (Boro')	344948	44·9	204	167	190	51·0	28·2	37·7	0·22	22
Liverpool (Borough)	492150	66·4	343	285	309	54·5	29·2	38·9	0·11	11
Manchester (City) .	362854	86·9	201	205	‡223	52·0	30·0	38·3	0·16	16
Salford (Borough) .	117641	22·2	66	58	51	52·7	28·5	39·0	0·24	24
Sheffield (Borough).	225090	9·9	154	119	124	..	..	..	..	..
Leeds (Borough) .	252458	10·8	201	118	113	50·5	24·5	38·0	0·11	11
Hull (Borough) .	100740	30·0	80	49	54	44·0	25	34	0·22	22
Newcastle-on-Tyne, do.	124000	23·4	124	66	85	48·0	30·0	41·2	0·00	0
Edinburgh (City) .	176481	39·8	113	85	100	50·7	32·0	43·7	0·10	10
Glasgow (City) .	440979	87·1	335	257	273	49·8	34·2	42·1	0·31	31
Dublin (City and some suburbs) .	319210	32·8	73	†157	136	51·8	28·4	41·0	0·12	12
Total of 13 large Towns . .	6187764	34·8	3679	3061	3130	54·5	24·5	39·4	0·14	14
				Week ending Dec. 21.		Week ending Dec. 21.				
Vienna (City) .	(1863) 560000	..	..	..	..	..	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·150 in. The lowest barometrical reading in the week was 29·666 in. on Sunday, Dec. 22, and the highest reading was 30·25 in. on Friday, Dec. 27.

The general direction of the wind was variable.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth rate and death rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 41.6°.

APPOINTMENTS FOR THE WEEK.

January 4. *Saturday* (*this day*).

Operations at St Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Heat and Cold." (Juvenile Lectures).

6. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr Head, "On the Early or Impending Stage of 'Phthisis Pulmonalis.'"

7. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Albert S. Bickmore, Esq., "Some Notes on the Ainos." John Crawfurd, Esq., "On the History and Migration of Plants yielding Textile Materials."

PATHOLOGICAL SOCIETY, 8 p.m. General Meeting for Election of Officers.

8. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m., Samaritan Hospital, 2.30 p.m.

9. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

10. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

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HUTCHINSON, JONATHAN.—On Inherited Syphilis, &c.
JACKSON, Dr. HUGHLINGS.—On Nervous Diseases
DAY (of Stafford).—On Spinal Origin of Rheumatism.
CORFE, GEO., M.D.—Physiognomy of Disease. (Numerous Illustrations.)
BEHIER, Professor.—Lectures at La Pitié. On Cerebral Hæmorrhage.
CHARCOT, Professor.—Lectures on Gout.
SANDERSON, J. BURDON, M.D., F.R.S.—Lecture on Arterial Pulse and Sphygmograph.
ALLBUTT, T. CLIFFORD, M.D.—On Puerperal Pyrexia.—On a Clinical Thermometer.
FOSTER, BALTHAZAR W., M.D.—On the Graduate's Medical
HINTON, JAMES.—Critique on Bankes's Doctrine of Visceral Pain.
SIMPSON, Sir J. Y., Bart.—On the Alleged Anticipation of Acupressure by John de Vigo in the Sixteenth Century.
GANT, F. J., F.R.C.S.—First Lines of Pathological Practice of Surgery.
MAUDSLEY, H., M.D.—On Pleas of Insanity
WELLS, T. SPENCER, F.R.C.S.—Reports on Ovariotomy.]
WELLS, Professor J. SOELBERG.—Lectures on Cataract.
JAMES, J. H., F.R.C.S. (of Exeter).—Essays on Inflammations.
JORDAN, FURNEAUX.—On Hereditary Syphilis.
FURTHER NOTES on WINE
MOXON, W., M.D.—Critique on Dr. Johnson's Theory of Cholera.
LAYCOCK, Professor.—On Epidemic Boils and Carbuncles—Night Blindness—On the Plea of Insanity.
EADE, PETER, M.D.—Lectures on Pain in the Side.
SOLLY, SAMUEL, F.R.S.—On Injuries of Diaphragm.
BEAUMONT, W. R. (Toronto).—Lecture on Traumatic Aneurism.
DONKIN, Dr. A. S.—On Uræmic Eclampsia.
PARTRIDGE, Professor (Calcutta).—On large Fibrous Tumour.
WOOD, JOHN, F.R.C.S.—Lecture on Rhinoplasty.
JOHNSON, Professor GEORGE, M.D., &c.—On the State of Heart and Lungs in Cholera, &c.
MACPHERSON, Dr., Inspector-General, &c.—On Cholera.
RINGER, SIDNEY, M.D.—On Children's Nightmare—On High Temperature in Rheumatic Fever.
OGLE, Dr. J. W.—On the Ophthalmoscope.
OGLE, Dr. W.—On Atropine and on Aphasia.
GASKOIN, GEO.—On the History of Syphilis.
LECTURES.—Gulstonian, by Dr. Southey—Croonian, by Dr. Andrew Clark—Lumleian, by Dr. Russell Reynolds—Clinical, by Dr. Murchison, &c.

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ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

INTRODUCTORY REMARKS ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

(*Continued from page 2.*)

Now, as regards the spinal cord, you must please to remember what you have already learned—that, although every sensitive fibre has its seat in the cord, and thus an impression is conveyed upwards to the brain from every spot on the surface of the body, as regards the motor nerves, there is such a blending of their fibres that it is impossible to discover the seat of origin of a nerve to any particular muscle, except in the case of the so-called cranial nerves. You will find that a nerve, for example, which, arising in the upper part of the spine, goes to form the brachial plexus, divides into a number of filaments, and sends its branches to various muscles of the arm. Or, on the other hand, a nerve traced upwards from the arm will proceed to this plexus, which then enters the spine at different intervertebral foramina. Consequently, although probably each nerve has its distinct origin in the cord, the fibres become so blended that disease at one spot cannot answer to paralysis of one individual muscle. I shall presently show you that the nerves from the extremities pass more especially to the upper part of the spinal cord, to the central ganglia in the skull; and here, again, probably the fibres are blended, so that disease of any one spot of the ganglia appears sufficient to produce paralysis of the whole extremity. Such arrangement has for its object, no doubt, the grouping together of certain movements; and thus we cannot will the action of any one muscle separately. In walking, when we use the flexors and extensors of the leg, we use them as a whole; we cannot will the contraction of each separately. There is some centre, therefore, which is controlled or put in action by the brain or by our volition, and that stimulates the whole group of muscles through the nerves. Such an apparatus is already made or is born with us, and once set in action will continue so without fresh voluntary effort on our part; but a good many of our movements we learn, but then, once having learned them, the centre of force has become educated. For example, in the playing an air on the piano, which may be performed when the mind is not "willing," or in the simple act of walking, the centre has become educated to perform certain work; thus the meaning of the common expression that use or habit is second nature. Just in the same way as the organic system of nerves can keep the viscera in play, so is it true that the spinal column contains in itself sufficient properties to produce movements through its nerves, the production of these complex movements either having been acquired by the cord or arranged by a natural organisation. I need not mention the case of the jumping of the frog or the flying of the bird when decapitated, but remind you of the anencephalous or brainless infant sucking at its mother's breast.

We, as physiologists, have to deal with men as animals, and, in spite of the prejudices against the notion, man must be studied as an animal. Thus we see, in common with other animals, many of our actions are in some way dependent on the spine. They may be regulated, excited, or arrested by cerebral influence, and a hard case it would be for us if in dressing ourselves, for example, or in eating, every necessary movement were dictated by volition acting on a particular muscle. Now, the whole grouping is to a certain extent arranged, and what is not arranged is brought about by education. Thus the spinal centres, like the brain, as I shall presently show you, become educated; and thus I verily believe that the spinal cords of two different persons, although apparently alike, are functionally very unlike, and that an adult man's cord is a very superior organ to a child's. So educated to a particular purpose may the spinal cord become that in using our microscopes we pass the slide from right to left, and *vice versâ* when we want to regard it at exactly the opposite end. I have known the following circumstance occur:—A gentleman going up to his room to dress for dinner had forgotten altogether the purpose of his visit until he found himself in bed. I think it is Professor Huxley who relates the case of an old soldier being observed by a former companion crossing the street with his Sunday dinner; the latter called out "attention," whereat the man's hands fell to his sides, and the mutton and potatoes into the gutter. No better example could be given of the character of our spinal cord. The word entered the ear, impressed the ganglia within, touching the old key, and the stimulus was carried down the arms before the cerebral hemispheres could bring their superior influence to bear on its arrest.

The spinal cord enters the cranium and terminates in the corpus striatum and thalamus. The fact of nerves coming off from this cranial portion is sufficient to show its nature. Whether the ganglionic bodies are simply the termination of the cord, or whether they have another function superadded, is a *quæstio vexata*. Whether the impressions conveyed by the cord to them not merely react to produce movement, as in the cord proper, but whether a sensation is actually received and an emotion results—whether, for instance, the laughing or crying of an infant might not take place even without the superaddition of any cerebral hemispheres—may be a question, but there can be none that in these bodies are elaborated those stimuli which act on the nerves, as when the fingers are moved in playing a tune, the strings, as it were, are pulled from above. The nerve fibres passing up from all parts of the body, and more especially of the extremities, have close connexion with these ganglia. Around them again is placed the white medullary substance of the brain, which passes to the cineritious substance. A sensation is carried through the spine to these bodies, and through them to the medullary substance and cineritious layers. In the same way, volition is carried downward to influence these central ganglia, and through them all parts of the human body. These cerebral hemispheres, I say, constitute the brain proper. They surround these central ganglia, receive impressions from them and are herein elaborated into ideas, and in their turn impart an influence back again.

You see, then, how the ganglionic system can act alone; also how the spinal cord has special powers of its own residing in it; and also how in the higher animals these impressions are conveyed upwards into the brain for a still higher purpose, and how by this connexion the brain can exert an influence over the cord.

The other senses I need not allude to, or those special nerves which convey other impressions, as of sight, hearing, etc. We have, then, the organic, the reflex, the sensori-motor systems, supposing there be a special function in the central ganglia; and fourthly, that apparatus where conceptions are formed and the will originates. If an animal decapitated is touched, a movement occurs: if a dog be irritated he bites, probably from a reflex action exerted from the central ganglia. Should he by discipline restrain himself, it shows he is using a higher power, or, in fact, putting into play his cerebral ganglia. (For the most correct and scientific account of the functions of the nervous centres I would refer you to the valuable work of Dr. Maudsley.) As soon as an animal has that power of exerting its will, it has an individuality of its own. It must feel itself subjectively as a creature distinct from objects around, and thus, I apprehend, must have a consciousness. As regards man, one cannot conceive of his existence without his having a feeling of consciousness. You cannot conceive, I say, of any impressions being made on man without his having corresponding perceptions of them, and if these give rise to voluntary action he must of necessity feel himself a being independent of surrounding objects, and, therefore, has a consciousness. Thus the conception of subject and object. Now, I am confident, and could illustrate it by the observations of both scientific and literary men, that they have become suddenly conscious of operations working silently in their brains during sleep. Sir Thomas Brown said, "Sleep is the waking of the soul; the ligation of sense, but the liberty of reason." If this be so, what becomes of consciousness as the basis of all mental philosophy? It is the basis of the older school metaphysics, which is like the house built on the sands - has no foundation in facts. If consciousness is the basis of our thoughts and acts, it is no basis at all. My consciousness and yours are altogether different, and the madman who conjures up false images in his diseased brain regards his consciousness as his umpire. If you believe in a consciousness as an immaterial principle which lies anterior to all bodily functions, you are getting into a labyrinth from which there is no escape, and you may pin your faith on spiritualism, table-turning, clairvoyance, and think you may read a book by sitting upon it.

We, as Medical men, are bound to keep people steady in this matter, and, honour to our calling, I do think the ballast of society is to be found amongst us. Man feels himself to be an immaterial agent; the result of the processes which I have mentioned to you, inducive of consciousness, necessitates the feeling, and thus he acts as if he were a purely spiritual being. He sometimes forgets he has a body, or finds it out too late—when it has gone to decay. For my part, I know of no mind except it has proceeded from a body, and know of no influence exerted on another mind except through corporeal agency. I have no wish to shake your faith in the immaterial or immortal nature of a spirit, whether this precede or be a sequel of organisation, but I must enforce this, that we, as Medical men, must regard the *genus homo* as one of the species of the animal kingdom. I believe there is no fear of our being too materialistic; for what with the absurd beliefs of the present day, it takes all the power of Medical men to keep the balance of society steady. It is our duty to deal with the animal body, and if we would only study its functions still more, we should be able to reduce many of the strange vagaries which it undergoes to simple physical derangements. It is a subject too large to dilate upon, but more than one social evil is only to be attacked from a physiological point of view. Man is higher than the brutes, but it is our duty, as Medical men, to study more especially his animal nature.

I have already shown what we have in common with the lower animals. Our superiority lies in the large cerebral hemispheres, which, as Hobbes, I think he is, long ago insisted, our sensations are converted into perceptions and mind. Remove the brain, the animal machinery remains, but the controlling influence is gone. It is probable that if this could be done, and the central ganglia left, feeling and emotions might remain; but sever the cord lower down—as you may see constantly in the accident wards from injury—and all control has passed, and the person is said to be paralysed. The part below, however, can still be excited. An influence can thus be sent from the surface to the cord, which I shall immediately react or pass on to the brain, where it is elaborated into perception and higher mental phenomena.

The anterior roots of the nerves being motor, and the posterior sensitive, it was at one time supposed that the motor nerves passed up the front of the cord, and the sensitive up the posterior—that the motor tract formed the front of the spinal cord, and the sensory tract the posterior. It was soon discovered that such opinion was erroneous from various cases of disease, and further observations of late tend to confirm the truth of the statements of Brown-Séquard that the motor tracts run in the lateral columns, and the sensory certainly not in the posterior; for this distinguished physiologist divided the posterior columns without producing any diminution of feeling. On dividing the lateral, the animal was paralysed on the same side. The sensory fibres, he found, passed to the centre, and were transmitted by the grey matter; consequently, when this was destroyed, sensation was altogether lost; also that the sensory fibres cross to the other side, so that if the cord be cut deeply through on one side, there is paralysis of motion of the injured side, and paralysis of sensation of the other.

Now, passing upwards, we find the two sides of the cord change places at the decussation of the pyramids; this crossing is very evident, and is certainly quite true of the motor tract; the fibres then course through the pons Varolii, and so on to the crus cerebri on each side, and terminate by spreading out in the ganglionic centres before named. You see, then, that a severance of one-half the cord produces paralysis on that side, until we reach as high as the decussation of the pyramids, when an injury to the motor tract paralyses the opposite side, and this opposite relation of parts continues through the brain; disease of one side of pons produces paralysis of opposite side of body, disease of right crus paralysis of left side, and *vice versâ*; disease of right corpus striatum or thalamus paralysis of left side, and the contrary—in short, disease of one tract paralysis of one side, and disease of other tract paralysis of other side. Now, although the motor and sensory fibres are distinguishable in the cord, it is difficult to separate them above; at least, I speak from a clinical point of view, for I believe physiologists teach that the motor tract passes up into the corpus striatum, whilst the sensory passes behind into the thalamus opticus. I say the correctness of this has not been proved from observation in the wards, and what appears more remarkable is that, in all cases of paralysis, motion appears more affected than sensation. As I shall afterwards, however, have to tell you, this may not be an altogether correct observation. It has also been thought that the two large central ganglia on each side of the brain have some special relation to the extremities—that one rules over the upper and the other the lower. I have myself a notion that this may be discovered one day to be the case, but at the present time we have no facts to prove it, since disease of corpus striatum or thalamus will produce paralysis of either upper or lower extremity. I have a firm belief that the separation of these bodies on either side is intimately associated with the independent action of the limbs. Why should they be separated? Here is the spinal cord formed of its two halves, but united so that the grey matter forms but one single tract, and from this arise nerves supplying the body, which moves as a whole, or the two symmetrical halves in unison, probably from the fact of one side of the grey centre being scarcely able to act alone. Had we had no extremities, I apprehend that this arrangement would have sufficed, but requiring as we do distinct powers of movement on each side, so the spinal cord separates into two distinct halves; consequently disease of each of the central ganglia in the spine produces the ordinary form of hemiplegia.

The brain is the organ of the mind. Within this skull—"the dome of thought, the palace of the soul"—sits the mind enthroned. Here is perception, and thought, and judgment. Here originates the volition, or the will which starts the levers for setting in motion many mechanical movements of the body, the vital processes proceeding under their own independent forces. Our movements appear like direct acts of the will, for we are unconscious of the machinery which intervenes. The mind, looking upon itself, cannot see the mechanism through which it works, much less the mechanism of which it may be the result; and thus of necessity all rational beings are obliged to place the "ego" behind or anterior to all physical events. The terms "mind" or "will," however, must be used, in a Medical lecture, as having a close relationship with these cerebral hemispheres. What we style the immaterial principle is a subject to be considered from a moral and religious point of view: it may precede the organisation; it may be a result of it. A very common idea is that the brain is "the soul's frail dwelling-house"—"my spirit beats its mortal bars"—or that the soul acts through the brain, as enunciated by our great poet in *Richard II.*, when the King says—

> "My brain I'll prove the female to my soul—
> My soul the father, and these two beget
> A generation of still breeding thoughts."

Be this as it may, I should be inclined to answer with the present Clinical Professor at Paris, when asked whether he were a materialist or immaterialist, "that I am a physiologist." "Our wills are ours we know not how." Do not think I am straying from my subject or talking of matters of no practical value: it is one of immense importance. What we call the various affections of the mind are so many forces exerting their influence on the body. I do not say these are galvanic, although nervous ganglia can produce galvanic forces; but they are realities. If the spinal centre be excited, a force is produced, displaying itself in the movement of a muscle; if the brain be excited, a force is equally produced, which may expend itself therein, but, proving its reality, is apt to exert itself on the machinery below. From various emotions the centres may be excited, and crying or laughing may result. If a man be made angry, the brain is irritated, and force is produced, shown in the expression of the face, or, in some, physical violence; a hasty blow may be the consequence; or, in a woman, those voluble muscles which afford movement to the tongue, may be set violently in action. This shows that the brain does actually in mental emotion develope a physical force. A man able to suppress his feelings would let off the superfluous steam (so to speak) by taking a walk—a woman prohibited from exhibiting her temper in the manner aforesaid would have a "good cry." A mother and child suffered a severe fright—the mother had an attack of hysterics, and the child was thrown into a condition known as chorea. It is of no use, therefore, dealing with these affections of the mind as if purely immaterial, when such consequences result. I need proceed no further with this subject in illustration of the connexion between mind and matter, or rather in proof of the forces developed by the nervous centres being strictly correlated to the other forces in nature. Cases illustrating the physical effects of mental emotion come under the daily observation of Medical men, but are not to be found so much in their published writings as in those of poets and novelists.

Our own Shakspeare might be quoted copiously in illustration of the sentiment contained in the well-known lines "She never told her love, but let concealment, like a worm in the bud," etc., etc. A very perfect story of the kind is to be found in the two following verses from Tennyson's "Princess" :—

"Home they brought her warrior dead,
She nor swoon'd nor uttered cry;
All her maidens watching said,
She must weep, or she will *die*.

"Rose a nurse of ninety years,
And set his child upon her knee;
Like summer tempest came her tears—
'O my child! I *live* for thee.'"

Such a case is no poetical fiction, for I verily believe that a flood of tears may be the safeguard against a serious illness. This is popular pathology, I know, but also scientific. It comes home to us very positively, does this mental emotion, when it will induce an indigestion, a jaundice, or a fatal anæmia.

The sum and substance of all these remarks are that influences from without are exerted on the nervous system, and finally on the brain, productive of certain emotions and mental processes, and that herein again are developed forces, immaterial, imponderable, if you like, but really physical forces, which react on the body in a most material and substantial manner. That sensations will call up ideas is a fact known to all, and one bearing on practice. Even in sleep certain external impressions will develope ideas or dreams of a determinate character. The doctrine of Locke expressed in the Aristotelian maxim, "Nullum in intellectu, nisi in sensu," may be found also in Shakspeare(a) :—"Oh! now I see; Queen Mab hath been with you," etc. "She gallops, night by night, o'er courtiers' knees that dream of courtesies straight; o'er lawyers' fingers, who straight dream of fees; o'er ladies' lips, who straight on kisses dream."

Once more, let the organic or sympathetic nerve be destroyed, all the bodily machinery stops; let the spinal marrow be destroyed, all movement and sensation is lost; let the brain be destroyed, the body may be sound, but soul is wanting there. If the grey matter of the cerebral hemispheres be chronically affected, the patient is demented or maniacal; if acutely affected, delirious. If the central ganglia be also involved, paralytic symptoms are associated with the mental, there is dementia with paralysis.

(To be continued.)

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture VII.—Part II.

THE MODES IN WHICH NATURE DEALS WITH SHOULDER-PRESENTATIONS ANALOGOUS TO THOSE IN WHICH SHE DEALS WITH HEAD-PRESENTATIONS.

We will now endeavour to trace, with more precision, the modes employed by Nature in dealing with shoulder-presentations. The mechanism of labour with shoulder-presentation is strictly analogous to that of ordinary labour. It is, therefore, desirable to set before our minds the picture of an ordinary head-labour.

In the first head-position, the occiput is directed to the left cotyloid foramen, the face looks to the right sacro-iliac joint, the vertex points downwards to the os uteri, whilst the long axis or trunk corresponds with the long axis of the uterus, which is coincident, or nearly so, with the axis of the pelvic brim. The head, in its progress to birth, undergoes five successive movements :—

1st. *A Movement of Flexion.*—The posterior fontanelle placed opposite the cotyloid cavity descends and approaches the centre of the brim, the chin is strongly pressed upon the chest, the neck comes to bear upon the cotyloid wall, whilst the forehead rises on the right, and the anterior fontanelle is applied to the right sacro-iliac joint. By this movement the head fixes itself upon the trunk, and presents its smaller diameters to the greatest or oblique diameters of the pelvic brim.

2ndly. *A Movement of Descent or of Progression.*—This begins commonly with the escape of the head from the mouth of the uterus, the clearing of the brim, and ends with the total expulsion of the fœtus.

3rdly. *A Movement of Rotation.*—This takes place in the lower part of the pelvic cavity. The forehead and the anterior part of the region of the vertex resting on the right sacro-iliac ligament, or on the right posterior wall of the pelvic cavity, follow the incline backwards and downwards, turning towards the sacral cavity, whilst the back of the neck slides behind the left foramen ovale, or the left anterior wall of the pelvis, and, following the incline forwards and a little upwards, turns towards the upper part of the pubic arch.

4thly. *A Movement in a Circle.*—The back of the neck is arrested under the symphysis pubis; the posterior fontanelle is nearly in the centre of the pelvic outlet; the occiput, the vertex, the forehead, the face, and, lastly, the chin, roll successively over the posterior commissure of the vulva, traversing the concavity of the lower part of the sacrum and the distended perinæum.

5thly. *A Movement of Restitution.*—As soon as the head is freed from the pelvis, the occiput turns quickly to the left, and the face and forehead to the right. This last movement of the head is the effect of the first of a succession of movements similar to those described which is now pursued by the trunk.

The shoulders, entering the brim in the left oblique diameter, turn the head, now freed from all restraint, bringing the face forwards to the right.

The movements undergone by the trunk (a) are three :—

1st. *A Movement of Descent or of Continuous Progression.*—The right shoulder is forward to the right, the left is behind to the left; the child's back is directed forwards to the left.

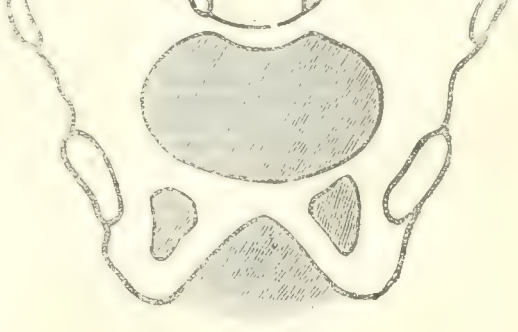
2nd. *A Movement of Rotation.*—The shoulders and the upper part of the trunk having descended into the excavation, the right shoulder turns towards the apex of the pubic arch, and the left rotates towards the concavity of the sacrum. The child's back, after the rotation, is turned to the left.

3rd. *A Movement in a Circle.*—The right shoulder remaining fixed beneath the pubic arch, the left shoulder, followed by the corresponding side of the trunk and the left hip, describe the arc of a circle; and gradually the right shoulder rises over the mons Veneris, whilst the parts placed behind

(a) A consideration of the genius of Shakspeare tends to confirm the belief in the doctrine before laid down, that the brain can be operating upon phenomena derived from without, and subsequently, and only when the thoughts are committed to paper, becoming conscious of them. I cannot otherwise understand what is meant by the inspiration of Shakspeare, or how he came to speak of the centre of gravity before Newton, or the circulation of the blood before Harvey, or those various doctrines of mental philosophy before Locke. The following quotation from Carlyle is much to my purpose:—"Shakspeare is what I call an unconscious intellect; there is more virtue in it than he himself is aware of. His dramas are products of Nature, deep as Nature herself. It is Nature's highest reward to a true simple great soul that he gets thus to be a *part of herself*. Such a man's works, whatever he with utmost conscious exertion and forethought shall accomplish, grow up withal *unconsciously* from the unknown deeps in him, as the oak tree grows from the earth's bosom, as the mountains and waters shape themselves. How much in Shakspeare lies hid—much that was not known at all, not speakable at all, like roots, like sap and forces working underground. Speech is great, but silence is greater."

(a) An easy method of realizing a description of some positions of the fœtus is to follow them with a pelvis and a small lay-figure, such as is used by artists. It is not even necessary to have a pelvis. A partial equivalent may be made by tracing a drawing of a pelvis on a piece of cardboard, and cutting out the oval which represents the brim and the space beneath the symphysis pubis. The following woodcut was made in this manner. Cut out the parts shaded dark. A small lay figure of corresponding size must be procured.

Fig. 35.



traverse the sacro-perinæal concavity. These movements are governed by the form of the pelvis. Labour with shoulder-presentation must obey the same laws.

Shoulder-presentations may be *primitive* or *secondary*. The *primitive* exist before labour has set in, and are almost necessarily associated with obliquity of the uterus. The *secondary* are formed during the initiatory stage of labour, under conditions which lead to the deflection of the head from the pelvic brim when it is made to move under the influence of force applied to the breech or trunk.

In nature we observe two chief shoulder-positions, and each of these has two varieties. In the *first position*, the head lies in the left sacro-iliac hollow. In the *second position* the head lies in the right sacro iliac hollow. Now, in either position, either the right or the left shoulder may present. Thus, if the head is in the left ilium, the right shoulder will descend when the child's back is directed forwards; and the left shoulder will descend when the child's belly is directed forwards. In the case of the *second* or right cephalo-iliac position, the right shoulder will descend when the child's belly is turned forwards, and the left shoulder when the child's back is turned forwards.

ORIGINAL COMMUNICATIONS.

PROPOSAL TO STAMP OUT SMALL-POX, etc.

By Sir JAMES Y. SIMPSON, Bart., M.D., D.C.L.

(Continued from page 6)

In order to stamp out small-pox, the first of the four regulations which I have ventured to lay down, as to the earliest possible notification of the presence of the disease, is indispensably essential. The "Public Health Act" for Scotland enacts that the keeper of any common lodging-house shall, when any of its inmates are ill of fever, or of any infectious disease, "give *immediate* notice thereof," either to the Medical officer, or the inspector of the poor, or the inspector of lodging-houses, in order that the Medical officer shall forthwith visit and report on the case, and due means of prevention be taken by the "Local Authorities."

It would surely not be reckoned too hard a measure for the public safety that every householder should, by himself or through his Medical attendant, be obligated by the Legislature to report upon the existence of any case of small-pox that might appear in his establishment. In the same spirit every Medical Practitioner might be obliged to report immediately any example of the disease he might meet with in practice. All, or almost all, cases of small-pox could thus be brought under official notice comparatively early in the progress of the malady. As the disease does not mature into the stage of infection for some days after the eruption shows itself, a free period would thus be secured to arrange proper measures of isolation, either at home or in hospital, before the date and danger of infection was reached.

Further, with the view of preventing the infection of others by patients that have passed through small-pox or its perils, it will ever be a matter of importance to prohibit and restrain the possibility of infecting others till the power of infection is exhausted. Small-pox patients have apparently the power of dealing out the disease to others, as long as any parts of the incrustation of the eruption are left on their faces, hands, or body. Until that time, and it may be a few days longer, segregation from the susceptible is necessary; and no doubt would be followed by every person of proper feeling, for who would inflict or run the chance of inflicting disease and death on his fellow-beings? The infection, if given even to one individual only, may, from that individual, possibly become multiplied and propagated to hundreds. And before mixing again in society the persons of the sick, as well as of the attendants, should perhaps—as already suggested—be subjected to bathing and some systematised disinfection. Like other Physicians I have heard of various cases of small-pox and other infectious diseases propagated from the sick at an advanced period of their own convalescence. Several instances have been communicated to me of beggars, in the streets of Edinburgh and elsewhere, importuning for charity by lifting up their children, with small-pox incrustations still upon them, almost against the very faces of those from whom they asked charity, and infecting with the malady those whom they subjected to this outrage. Not long ago, as I am informed by Professor Gairdner, a woman with her face and hands incrusted with small-pox was seen selling sweetmeats to the children of a school in Glasgow. I have heard of repeated instances of small-pox obtained by riding in public carriages which had been employed immediately before by persons still in the stage of convalescence from the malady. The sanitary acts of England, Scotland, and Ireland ought in a great measure to protect the lieges against such abuses for the future, as they forbid under a penalty any persons suffering from infectious disorders (as small-pox, hooping-cough, etc.) from entering a public conveyance, or wilfully exposing themselves in any street or public place, or being exposed by others in any street or public place, without proper precautions against spreading the disease.(a)

The late stamping-out of rinderpest proved a most successful, but, at the same time, a most expensive proceeding. The disease, and the poleaxe as a means of extirpating it, has, I am informed, cost cattle proprietors and the country—in the price of the animals destroyed—a sum of about £2,000,000 sterling. To stamp out small-pox from amongst us, and thus save annually hundreds and thousands of human lives by its extirpation, would require no such sum as was expended on the extinction of the cattle disease, and, indeed, would require little, or truly no outlay beyond what the Legislature has already enacted, and exacts for the protection of the public health; for, as already stated, much of the machinery for its extirpation already exists under the late Sanitary Acts of Great Britain and Ireland. The segregation of those affected with small-pox who belong to classes which are able to keep the sick member or members of their family at home, would, of course, cost the country nothing; and the rules applicable to their isolation could, if faithfully followed, be managed without any inconvenience or any injury to their feelings; and generally, if not always, under the superintendence and responsibility of their own Medical attendants. These regulations would involve no restrictions that are not followed out at present in every well regulated family when infectious disease attacks any of its members; none, indeed, except such as common prudence and common humanity demand for the protection of the bodies and lives of those that are still happily unaffected. Any open breach of rules that tended deliberately to spread the disease, and endanger and destroy the health and lives of others, would of course require to be repressed by proper penalties. The primary separation and the *maintenance* of the poorer classes under the circumstances is already provided for under the Sanitary Acts; and our present sanitary laws are, in relation to the poorer classes, defective in their powers of stamping out infectious diseases, merely and mainly in as far as they do not enforce the isolation of the sick by due cautions *after* they are lodged in hospitals or in houses for their reception. No new outlay of money would require to be legalised; but even if required, the expenditure of a few thousand pounds would surely form a small imperial payment for the preservation yearly of some thousands of our human population from death through one of the most dreaded and loathsome of human diseases. In the eye of the political economist and of the philanthropist, the premature slaughter annually of two or three thousand, or even of two or three hundred, human beings is a loss that cannot be easily estimated by mere yellow gold.

The measures which I have suggested would probably, in my opinion, stamp out small-pox in Great Britain within six months or a year, provided they were carried out as faithfully and universally as the Legislature can command; and

(a) Other infectious diseases are often spread in the stage of convalescence. I was lately told of a rich merchant prince building himself a palace in the country. Scarlet fever broke out in the family of one of his gatekeepers shortly after he took up his residence. A certain amount of separation was enforced, but not enough, for at last one of the gatekeeper's children, in an advanced stage of convalescence from the disease, was allowed to come to him and deliver a letter. In consequence of this unfortunate communication, the merchant himself sickened and died of the scarlatina. Some years ago I lost a dear friend and patient of measles, which broke out three days after her accouchement. She had come thousands of miles to be under my care. She was infected thus. A girl came to beg at the door of her country residence, near Edinburgh. The girl stated she had been in Hospital with measles, and had been dismissed when still too weak to work. The servant who conversed with the girl took measles, and gave it to some of the children. I brought my patient herself into Edinburgh as soon as possible, as she had never had measles, and all the eruptive fevers are, it is well known, almost always fatal when they attack the puerperal mother. But it was too late. I wrote her husband by one mail saying she was quite well, but I was in great fear of her from this exposure. I wrote him by the next mail the sad news of her death. The new-born child took measles, but recovered.

if the extirpation of the disease were thus once effected, any fatal case or cases of the return of the malady to any sea-port, city, town, village, or country district, would be speedily notified by a machinery already in full operation—viz., the registration of deaths; and all the requisite powers for stamping out the disease in the newly infected locality could at once be set in full operation. All our sanitary acts provide for any instances of this or other infectious disease when introduced into our sea-ports by ships—ordering the removal of the sick to an hospital or other place for their reception; but in this as in the case of our own poor in these same hospitals and places, totally forgetting to regulate their due isolation, so that they may not heedlessly scatter around them the seeds of disease and death.

Measures of quarantine and isolation, similar to those I have suggested in the present paper, have been tried elsewhere in the British dominions, and found to answer. Of the various ports of South Australia, all entrance to those affected and capable of spreading small-pox has been so well guarded against, that in only one instance—as mentioned to me by Dr. Grainger Stewart—has the disease spread landward into the city of Melbourne, in consequence of an affected individual getting into the town through the misrepresentation of the captain and Surgeon of the ship in which he arrived. He inflicted the disease upon nearly twenty of the residents. The authorities then interfered, placed all the affected in an inland quarantine station, and the disease spread no further. Thus the malady was at once stamped out. A different fate a few years ago attended the introduction of measles into the colony of Western Australia. I am informed by my pupil, Mr. Page, that towards the latter end of the year 1862 the disease in question was introduced by some persons arriving by the monthly mail steamer which touched at King George's Sound. "As this," he writes me, "was the first attack of measles that had visited the colony, a large proportion of the white inhabitants and all the coloured natives had never before been subject to its influence. The disease spread with such rapidity and fatality that the coloured population in the settled districts was almost swept away by it, a very small number only of those attacked recovering. The whites also suffered severely, many children and adults dying, but the ravages of the disease were not nearly so frightful amongst them as amongst the coloured natives."

In conclusion, I would beg to make one remark. That formidable quaternion of diseases—small-pox, scarlatina, measles, and hooping-cough—kill annually in Europe above half a million of its inhabitants, and particularly of the younger portion of its population; carrying sorrow and desolation into thousands of households. My observations in the present communication refer especially to the stamping out of small-pox, for I believe it is the malady whose extirpation could thus most easily be effected. But the same principles apply, and will, I believe, be applied betimes to the analogous contagious diseases when the science of public health is more advanced, for the study of it is yet in its infancy. Scarlatina and measles will become greatly reduced, if not extirpated, by an observance of similar rules. In due course it will be extended to hooping-cough. Typhus, etc., will be controlled by its influence.(b) I have already, at the beginning of these observations, stated that during the ten years from 1856 to 1866 above 51,000 individuals had died of small-pox in Great Britain, and, if we calculate approximately from the population, above 12,000 more in Ireland, or upwards of 60,000 in the United Kingdom. In the ten years from 1856 onwards (I have no later data) there died in the United Kingdom from scarlatina above 280,000; from measles above 130,000; and from hooping-cough above 150,000; or about 600,000 of our population were killed off by these four diseases. To what extent can this terrible decennial death-roll be diminished or abolished by the process of isolation and stamping out? Is not the whole subject a grave and momentous question both for Legislators and Physicians?

Edinburgh.

(b) While correcting the proof of this paper, Dr. Adamson, of St. Andrews, has informed me that some time ago a patient, carrying from a distance the infection of typhus, came to St Andrews and was laid up there with an attack of the fever. From this primary case the malady spread to others, till several died and a considerable number were laid up with the affection, but recovered. The advent of this infected individual to St. Andrews thus killed and maimed about as many of its inhabitants as were killed and maimed by the late "diabolical explosion" of the barrel of gunpowder or nitro-glycerine against the wall of the prison at Clerkenwell. But how very differently are these two series of human deaths and dangers estimated—and their repetition attempted to be guarded against—by the police, the Legislature, and the public!

ON THE

ARTIFICIAL PRODUCTION OF CERTAIN ORGANIC FORMS, AND THE MANNER IN WHICH THEY ARE PRODUCED.

By GEORGE RAINEY, M.R.C.S.,

Lecturer on Microscopical Anatomy and Demonstrator of Anatomy at St Thomas's Hospital.

(Continued from page 8.)

I will next show, by a few experiments, that the physical conditions above mentioned are also alike operative on animal substances when placed under circumstances similar to those recorded of the vegetable substances.

If a film of dried white of egg, immersed in a saturated solution of chloride of zinc, be placed under a cover of thin glass on a microscope slide, it will be seen by careful examination to pass through a variety of organic forms, and ultimately to become converted into globules. As this experiment is so easy of performance, a detailed description of these appearances would be unnecessary. The time required for their completion will be some hours, or it may be days; that will depend upon the quantity and shape of the layer of dried albumen, as well as upon the quantity of the solution of the chloride of zinc. The solution of the chloride of zinc as obtained from the druggist's will not be found sufficiently strong for the experiment; I have therefore employed a solution made by saturating strong hydrochloric acid with oxide of zinc, and evaporating the solution until it becomes of the consistency of thin syrup. This solution, with the excess of undissolved chloride, is to be put aside in a well-stopped bottle for use. Dried muscle, both striped and unstriped, is acted upon by this solution in the same manner as dried albumen, thus furnishing a test for the latter kind of muscular fibre, the microscopical characters of which are so unsatisfactory. White of egg which has been coagulated by heat, dried gelatine, white and yellow tissues are not materially affected by this test.

Dried albumen put into a well-stopped bottle (*i.e.*, not exposed to the air, and so differing from the previous experiment) with a sufficient quantity of this solution of chloride of zinc becomes completely dissolved, but is precipitated in globules on the addition of a small quantity of water. If a small quantity of the solution of dried albumen in chloride of zinc be put under a cover of thin glass on a microscope slide, and exposed at the edge of the cover to the air, it will, by attracting water, be seen, with a lens of a quarter of an inch focus, to deposit minute globules, some of which, by a careful and protracted examination, can be further seen to coalesce into larger globules, during which all the changes of form consequent upon their coalescence into globules of a larger size can be distinctly traced. The effect of tenacity—a form only of cohesive attraction—is best displayed by commencing the examination of albumen thus acted upon by the chloride of zinc in pieces of different forms. First, if a piece of the shape of a fine thread be examined, it will soon be perceived to become of an unequal thickness in different parts, and by continuing the examination, the process of attenuation of the thin parts, and of enlargement of the intermediate ones, will be seen to end in the rupture of the former, and the retraction of the broken pieces into spherules of different sizes.

Secondly, a thin flat piece examined in a similar manner will be seen first to become attenuated in some parts and thickened in others, and afterwards to pass into areolæ and globules of various sizes; and lastly, a thicker portion, having no regular form, can be seen to pass into spheres enclosing within them vacuoles filled with the fluid medium in which they were formed, as well as with solid globules of different sizes. These appearances are not confined to the compound of albumen and chloride of zinc, but can be equally well seen in the vegetable compounds described in the first part of this paper, for a representation of which see figs. 2 and 3.

(To be continued.)

Provincial Hospitals.—The funds of the Radcliffe Infirmary, Oxford, and the Bucks Infirmary, will be augmented by the seasonable bequests of £500 each, under the will of Mr. Joseph Dodwell, of Long Crendon, Bucks.

ON TAPPING WITH THE AID OF SIPHON-POWER.

By W. ROBERTS, M.D., F.R.C.P.,
Physician to the Manchester Infirmary.

THE aid which may be obtained in the operation of tapping by the use of the soliciting force of a column of water in an elastic tube was first suggested to me in a case of ascites which was under the joint care of Dr. Eason Wilkinson, Mr. Hall, of Salford, and myself, in November, 1866. The disease was cirrhosis of the liver, and the necessity for tapping soon became apparent. It was agreed to try the method indicated; and Mr. Hall caused to be made a fine trocar and canula furnished with a short piece of metal pipe projecting beyond the hilt of the canula. The operation was performed in the following manner:—The canula, armed with the trocar, was introduced in the usual way through the linea alba. The trocar was then withdrawn, and a piece of elastic tubing four feet long, previously filled with water, and tied in a knot at one end, was slipped over the projecting piece. The knotted end was then placed in a vessel on the floor, about thirty inches below the level of the puncture, and untied. The fluid immediately commenced to run, and continued to run for about an hour and a half, in which period several pints of ascitic fluid drained away. After this, Mr. Hall improved the instrument

by adapting a screw to the projecting piece (see Fig. 1, *a*), and fixing a similar piece (*b*), also furnished with a screw, to one end of the elastic tube. The elastic tube could thus be immediately screwed on to the end of the canula on the withdrawal of the trocar, and the spilling of the fluid during the fixing of the elastic tube was almost entirely avoided.

This patient was subsequently tapped several times by the same method, and, so far as the mechanical arrangement was concerned, with cleanliness, convenience, and efficiency.

The principle of the method is easily understood. The column of liquid in the elastic tube (drawn into it beforehand by suction), acting in obedience to the law of gravity, operates as a soliciting force, and as it seeks the lower level of the vessel on the floor, it draws after it the contents of the cavity which is being tapped. When the patient lies horizontally in bed, the fluid first ascends in the canula, and then descends along the elastic tube, which thus acts after the manner of a siphon.

The next case in which the same contrivance was used was that of a young girl of 23, with a large monocystic ovarian tumour. She was under the care of Mr. Dowse, of Longsight, with whom I saw the case. We requested the advice of Mr. Southam; and it was agreed to tap the cyst with the aid of the siphon, as in the preceding case. Mr. Southam used a small French canula, and, after its introduction into the cyst, an elastic tube, filled with water, was slipped over its head. Twenty-five pints of a slightly viscid, opaline, albuminous fluid were withdrawn in an hour and three-quarters. The operation was performed on April 15, 1867. Perfect recovery, without a bad symptom, ensued; and up to the present time (a period of eight months) the cyst has shown no signs of refilling.

Mr. Southam tapped by the same apparatus a second case of ovarian tumour in the Manchester Infirmary six months ago. The cyst, which was single, has not as yet shown any appearance of refilling.

On December 10, 1867, I tapped at the Royal Infirmary by a fine trocar and canula, constructed on the plan of Fig. 1, with the aid of the siphon, a large ovarian cyst in a patient under the care of Dr. Wilkinson. In the course of an hour 18½ pints were withdrawn of a dark brown albuminous fluid—specific gravity 1021—containing cholesterine plates and granular corpuscles. On the subsidence of the tumour, several other cysts could be felt, forming an oblong mass as large as two fœtal heads, stretching across the hypogastrium.

The operation [illegible] of being suggestive; and, on consideration, it seemed likely that this method of tapping was capable of [illegible] applications, and possessed certain important advantages over the common mode of operating by simple trocar and canula. The advantages which it appeared to promise were the following:—

1. *The Use of much Smaller Instruments.*—Liquids, and especially the slightly viscid liquids of dropsical effusions, will not flow through fine tubes without the aid either of an expelling or a soliciting force; but, having this aid, tubes of very small bore transmit peritoneal, pleuritic, and pericardial effusions, and the contents of serous cysts and abscesses, with facility.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

SPECIAL FEMALE DEPARTMENT.

THIS is the first of a series of reports in which we hope to give a fair representation of the opinions and practice of the Physician-Accoucheurs at our different metropolitan Hospitals. There is unquestionably a large amount of valuable material to be collected in the obstetric out-patient room—a field of observation, however, from which we have not heretofore reported so fully as is desirable. We begin with St. Bartholomew's.

This institution has an in- and out-door department exclusively devoted to female affections, under the management of Dr. Greenhalgh, the Physician-Accoucheur, aided by a Resident Midwifery Assistant. In the indoor department are twenty-three beds—fourteen in one ward, seven in another, and two in a third, adjoining which is a small operating theatre. Dr. Greenhalgh devotes nearly three hours every Wednesday to the in-patients, and we may add that he gives clinical remarks on nearly every case.

We have now, however, to do chiefly with out-patient practice. There are usually from 120 to 140 out-patients under treatment. In addition to the above is an obstetric out-patients' department, from which 1000 to 1500 poor lying-in women are annually attended at their own homes by the pupils.

In order to give a rough idea of the kind of cases met with in the female out-patients' room of a large Hospital, we give the following list:—Metritis chronica, 23; Procidentia uteri, 19; Fibroides uteri, 14; Subinvolutio uteri, 10; Vesicocele, 8; Polypus uteri, 9; Carcinoma uteri, 6; Hæmatocele, 7; Atrophia uteri, 2; Utero-gestatio, 2; Anteversio uteri, 2; Chlorosis, 2; Rectocele, 9; Hypertrophia clitoridis, 1; Tumor ovarii, 2; Cellulitis pelvica, 4; Epithelioma, 4; Amenorrhœa, 5; Hypertrophia cervicis uteri, 3; Cervix uteri elongata, 2; Tumores fibrosi, 3; Ulceratio cervicis uteri, 3; Retroversio uteri, 2; Congestio cervicis uteri, 1; Cystis labialis pudendi, 1; Congestio uteri, 1.

We may remark, in the first place, that great care is taken to secure cleanliness and prevent infection in the investigation of these diseases by anointing the finger before each investigation with a compound of purified soft soap, glycerine, and carbolic acid, in lieu of grease or oil, and the subsequent use of a solution of Condy's fluid. ℞ Glycerini, spir. vini rect., āā ʒss., saponis mollis ʒj., acidi carbolici ʒss.

Before entering into the details of special diseases and their treatment, a few general observations may not be here out of place. Dr. Greenhalgh, whilst laying great stress upon the importance of distinguishing between those female affections which are especially local and those which are manifestly due to some faulty condition of the constitution, considers that, in the majority of cases, the use of both general and local remedies is required. He urges the necessity of a careful digital examination, particularly in all severe cases and those of long standing, owing to the imperfect guides to correct diagnosis afforded by symptoms in these diseases. He especially objects to the use of the term "leucorrhœa," on account of its extreme vagueness, and as being not a disease, but simply a symptom of some general or local defect—women including under the terms "whites," etc., every conceivable discharge from the vagina. Upon like grounds, he rarely employs, except in cases of doubt, the terms uterine hæmorrhage, menorrhagia, and the other names for disorders of menstruation, hypertrophy, etc., but speaks of the affections, general

and local, which give rise to these conditions in particular cases. He points out the importance of recognising the different changes in the uterus produced by various affections under varying circumstances.

In the treatment of uterine affections, Dr. Greenhalgh strongly recommends rest in the recumbent posture, the use of the tepid or cold douches with an appropriate syringe, and great attention to the state of the rectum, which he finds frequently distended with hardened fæces, leading to local congestion and mechanical irritation.

Now to our particular task. The foregoing table shows that chronic metritis is the most frequent disease occurring among Dr. Greenhalgh's patients at this Hospital. The causes of this affection are very numerous; the most frequent, however, are cold, especially at a menstrual period, exertion too early after labour, local irritation—the position of the uterus and its peculiar vascular structure, no doubt, predisposing it to venous turgescence, and its sequelæ, hypertrophy, induration, abrasion, ulceration, and various misplacements.

Chronic metritis is usually attended by more or less discomfort, rarely amounting to pain, in and about the pelvis, hypogastrium, and lower part of the sacrum, and a more or less free discharge of mucus or muco-pus, both of which symptoms are usually aggravated about the menstrual periods and upon exertion. The uterus, at first swollen and soft, becomes enlarged and indurated, descends in the pelvis, and is tender to the touch. Usually there is little or no constitutional disturbance, except in severe and protracted cases. For this complaint Dr. Greenhalgh uses the following means:—

Rest, general and local; nutritious and unstimulating diet; leeching and scarification; saline aperients; and, subsequently, tonics, the tepid or cold douche. In cases of long standing, and where there is much enlargement and induration, the iodide of potassium and small doses of the perchloride of mercury, with the local application of iodised cotton and glycerine, and but rarely the potassa fusa c. calce, prove most useful.

Dr. Greenhalgh regards as of trifling pathological importance those granular conditions, which he belives to be erroneously called ulcerations of the cervix, so frequently met with in connexion with metritis, and to which, in the vast majority of cases, he considers them to be due. When they persist after the cure of that affection (which, in his experience, they comparatively rarely do), from two to three applications of nitrate of silver usually suffice to effect a cure.

Next in frequency to metritis are prolapsus and procidentia uteri. The usual plan adopted by Dr. Greenhalgh for the cure of these affections is the introduction of a Hodges', Zwancke's, or Reid's pessary, and the use of astringent injections. Owing, he says, to the ill-success attending Surgical operations for the cure of procidentia, which operations are not altogether unattended with risk, Dr. Greenhalgh never recommends them except in cases where the perineum is nearly or quite destroyed.

The frequency of fibroid and fibrous deposits in the walls and beneath the serous and mucous membranes of the uterus, and the severe hæmorrhages to which these several conditions give rise, invest this form of degeneration with great importance. The causes of this affection are very obscure. Fibroids are, however, most frequent in those who have passed middle age, and they occur especially about the climacteric.

Although Dr. Greenhalgh has little faith in the effects of remedies for the removal of these deposits, still he believes that we can delay and probably arrest the development of these growths, and materially lessen and even check the large losses of blood occasioned by them. The plan he adopts is the frequent and long-continued administration of small doses of the perchloride of mercury, with quinine and belladonna. ℞ Hyd. perchlor. gr. j.; quiniæ dis. ℈j; ext. bell. gr. iv. Ft. pil. xx.: one night and morning. He gives also large doses of bromide of potassium, and the liquid extract of ergot. As a hæmostatic he finds the following combination most efficacious:—℞ Acidi sulph. dil. ƒ℥j.; tinct. cannabis ind. ƒ℥j.; mist. acaciæ ℥j.; ergotæ extracti liquidi ƒ℥ij.; syrupi aurantii ƒ℥ij.; infusi aurantii ad ƒ℥viij. M.: a sixth part every fourth hour. Ice by the mouth and applied over the hypogastrium is a useful adjunct, and, should the bleeding persist, the vaginal "spongiopiline plug" (see *Obstet. Soc. Trans.* vol. vi. p. 140) ought to be used. In cases where there is pain, especially if it be of a periodic character, and when the cervix uteri is soft, and the os uteri somewhat patulous, Dr. Greenhalgh has predicted polypus, and the use of sponge tents has frequently revealed its existence.

The next diseases in point of interest are, perhaps, those of pelvic cellulitis and hæmatocele. These diseases not only simulate each other, but may be mistaken for very different complaints. We are glad, then, to be able to state Dr. Greenhalgh's opinions, however briefly they must be given, on this subject. The chief characteristic of cellulitis is that, unlike hæmatocele, it generally follows either labour or abortion; whereas hæmatocele is most frequently connected with some disorder of menstruation, and not with the pregnant or parturient conditions. Again, cellulitis is accompanied by the usual constitutional symptoms of local inflammation, which are absent in hæmatocele, except in cases where the deposit of blood gives rise to the former affection. Pursuing our inquiry still further, we find a marked difference in the local manifestations. In a recent case of cellulitis, the vagina is hot, its roof being occupied by a firm and tender swelling in which the uterus, usually in its normal position, is fixed. In hæmatocele, the vagina is cool, and in its upper part, and frequently low down in the recto-vaginal pouch, a soft, boggy, and insensible swelling may be detected displacing the uterus.

In the treatment of pelvic cellulitis, which most frequently occurs in those of feeble health and after large losses of blood, Dr. Greenhalgh strongly advocates a supporting plan—a liberal diet with brandy or wine and tonics being mostly required. In recent cases, and where the pain is acute, he finds the application of a few leeches useful. The hot linseed-meal poultice or bran bag, or an application of strong mercurial ointment with belladonna and camphor, and in the chronic stage painting the lower abdomen with compound tincture of iodine, he frequently has recourse to. Where suppuration ensues, he strongly objects to the use of the trocar or lancet, except the abscess be pointing. In two cases operated upon some years ago, inflammation of the cyst and fatal peritonitis ensued. Out of a very large number of cases, Dr. Greenhalgh never witnessed the rupture of the cyst into the cavity of the peritoneum, although he has seen a case in which so large an accumulation of pus existed beneath the abdominal integuments as to simulate and be taken for ovarian dropsy.

In the treatment of hæmatocele much must depend upon the severity of the symptoms. Where collapse ensues, restoratives; where pain, opiates are indicated. In mild cases little beyond rest and a nutritious and unstimulating diet is required, mild doses of mercury or the iodides of potassium or iron. The application of the compound tincture of iodine over the abdomen, or the iodised cotton with glycerine in the vagina, may be had recourse to in order to promote absorption of the deposit. Where cellulitis ensues upon hæmatocele, the same plan of treatment should be adopted as in the former affection. Dr. Greenhalgh strongly opposes, as in pelvic abscess, any Surgical interference in this disease.

The foregoing is, of course, a very brief and necessarily incomplete, and yet accurate report. We shall give further reports from this Physician's practice, which will be all the more welcome to our readers, as they have no other way at present of getting at Dr. Greenhalgh's views and opinions. He has not as yet published any systematic treatise on the diseases of women, although his clinical remarks at the bedside show plainly how well he could write on this subject.

EXAMINATIONIANA.—A good tale or two are told of Malgaigne in the *Gazette Médicale de Lyon*. "How do you proceed," he asked a candidate, "in performing the operation of extraction of cataract?" "I—I," hesitatingly replied the youth, "empty the anterior chamber." "Very well; and next?" The candidate, seeing himself thus encouraged, and believing himself to be on the right road: "And then I empty the posterior chamber!" "Capital; and then?" "I—I—I—" "Why, you stick up a bill, '*chambre à louer*.'" In the next the candidate was evidently a sharper fellow than this noodle. Malgaigne, interrogating him upon the rotation of the stomach in its conditions of vacuity and repletion, and on the relative gravity of wounds of the organ in these two different conditions, in order to put the question more precisely, said, "Now, sir, if you were called out to fight a duel, would you think it more prudent to breakfast before or not?" "By my faith, sir," replied the other, "I would breakfast before, because I could by no means be sure of being able to do so afterwards." The last we give in the original. Examining a would-be *officier de santé*, he asked him how he would proceed for the extraction of the placenta. "Je tirerais sur le cordon." "Et après?" "Je tirerais sur le cordon." "Bien, mais si rien ne venait?" "Je tirerais plus fort sur le cordon!" "Eh! Monsieur, une portière en ferait autant que vous."

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Medical Times and Gazette.

SATURDAY, JANUARY 11, 1868.

THE VACCINATION ACT.

On the first day of the new year, the Act passed on August 12, 1867, "to consolidate and amend the laws relating to vaccination," came into force. We discussed so fully the character of the measure during its incubation, that we have only now to remind such of our Professional brethren as hold the office of public vaccinator, that, under section 30, they are liable, upon summary conviction, to a penalty of twenty shillings if they do not, within twenty-one days after the successful performance of vaccination, "transmit by post or otherwise" to the registrar of births and deaths *for the district within which the birth was registered*, if such district be known to the vaccinator, or otherwise to the registrar of the district in which the operation shall have been performed, a certificate according to the prescribed form. And Medical Practitioners who shall refuse to fill up and sign a certificate (when submitted to them) in reference to cases successfully vaccinated by them, are liable to the same penalty of twenty shillings. The public vaccinator is entitled to no fee whatever for filling up the certificate and transmitting it to the registrar, nor for the duplicate certificate which he is bound to deliver, on request, to the parent or other person having charge of the vaccinee.

The Registrar-General, under section 14, has to supply the registrars with appropriate books, forms, and regulations, which have all been issued. The vaccinators will get whatever forms they require from the registrars free of charge. In place of the different coloured books containing the four kinds of certificates which, under 16 and 17 Vict., cap. 100, were supplied to the vaccinators, the new forms are printed on one sheet of paper. On the first page is the notice to be given by the registrar to the parent on registering a birth; on the second the certificates of unfitness and insusceptibility; and on the third the certificate of successful vaccination. The form passes from the registrar to the parent, to be presented with the child to the vaccinator, who, in the event of unfitness or insusceptibility, returns it certified to the parent to be retained as a defence against a prosecution; but if the operation is successful the vaccinator then transmits the form so certified to the registrar. The only thing which we have to notice concerning these new forms is that we do not observe any provision for the duplicate certificate of successful vaccination, but probably it is assumed that vaccinators have a stock of the old book-certificates on hand which will be available for present use.

Remembering how thoroughly opposed the Registrar-General was understood to be to the measure which has now become law, we feel bound to observe that not a shadow of this hostility is apparent in the instructional circular wherein the registrars are directed as to the working of the Act. Its requirements, and the procedure to secure its efficient operation, are clearly stated, the judicious advice in reference to proceedings for penalties being especially commendatory.

The Poor-law Board has also issued a circular letter to boards of guardians explanatory of the provisions of the Act, accompanied by extracts from a letter showing the construction placed by the Medical Department of the Privy Council on certain of its clauses. The guardians are advised that in any district it will be difficult, and in any populous district impossible, for them to give full effect to the intention of Parliament unless they appoint a paid officer or officers to make the requisite inquiries and to take subsequent proceedings under the 27th and 31st sections. As regards the local arrangements for vaccination affecting the Profession, the Medical officer lays down the principle that all unnecessary subdivision of vaccination districts should now be discontinued. The extracts from the letter of the Medical Department to the Poor-law Board will be found in another part of our impression.

Lastly, we remind Practitioners who are already public vaccinators that it is now open to them, if their fees are below the scale authorised by the present statute, forthwith to determine their present contracts. In all fresh agreements, the remuneration must be up to the mark of the new scale.

The Act may now be said to be fairly launched. A year or two will test its value as a means of procuring universal vaccination, and its authors may reasonably ask that further judgment shall be suspended until the results of its trial are known.

THE FEVER AT TERLING.

Our readers will find in another column an account of the Terling fever, drawn up by Mr. Haviland from personal inspection. We make no doubt that the suggestions of one so well versed in the geological and meteorological conditions which favour disease, (a) will be of some comfort to our Medical brethren on the spot. Clearly, it is a case in which a systematic attempt at "stamping out," as he advises, ought to be successful. Not one drop of water ought to be drawn from any well in the Terling gravel bed for drinking, cooking, or washing. All that passes from the sick, and all their linen, should be drenched in a solution of carbolic acid. A gang of labourers should empty and fill up all receptacles of filth, and their contents, rinsed with quicklime and carbolic acid, should be carted to the fields. Lastly, all the people that can be spared should leave the place, and as there is little or no risk of personal infection, the neigbouring unions need not fear to take them in, and it is foolish to remain in an infected spot.

Our latest advices, dated January 8, 5 p.m., show that fresh cases are occurring daily, and that the able-bodied men are now falling victims. The housekeeper at Terling-place, who was taken ill on Sunday, is not expected to survive.

MODERN CHEMISTRY.

The rapid strides which chemistry has made of late, especially in its synthetical and higher branches, are among the striking phenomena of an age whose salient feature is pre-eminently the advancement of the physical sciences. Chemistry, which can scarcely be said to have had its birth till towards the close of the last century, having during the first half of this attained a vigorous childhood, is now passing through a stage of awkward adolescence towards, we believe, a healthy maturity. But it is precisely this crudeness that renders the current literature of the science unintelligible to the Medical man of some twenty or thirty years' standing. In the days of his youth all was order, and the slight differences which existed in the symbolism of chemistry were regarded as trivial and unimportant. The doctrines taught were sufficiently con-

(a) Our readers may remember his successful attempt last autumn to trace the geological conditions under which the cholera originated in Bridewater in 1866. See *Medical Times and Gazette*, vol. i. 1867, "Rain and Disease."

sistent; and though some ugly facts militated against received theories, yet these latter were generally supposed to be thoroughly in accordance with experiment. The brilliant generalisations of Liebig served also to divert the minds of chemists from the fundamental notions which underlay notation and nomenclature. Laurent and Gerhardt stirred these deceitful depths, showing the untenableness, both on experimental and logical grounds, of the received theories; and since their day a host of followers has striven to evolve order once more from the muddy pool which those *savants* left behind them. Even now chemistry can scarcely be said to have entirely emerged from the chaos in which it has for some years been involved. That it is rapidly emerging, however, will be made evident to any one who will peruse any of the more systematic modern works on the science, such as Naquet's "*Principes*," an English translation of which has just appeared.

Advanced chemists of the present day are accused by their more conservative brethren of being theoretical; by which we suppose it is intended to stigmatise them as unpractical. But there was never perhaps a time when those ruthless innovators pursued the path of experiment with greater zeal. As for theory, probably there are more assumptions in most pages of such a work as Brande and Taylor's manual than in a corresponding page of M. Naquet's treatise. Many Medical men who studied chemistry by the light of the older views are deterred from attempting to master modern chemical memoirs by the mistaken notion that the whole science is chaotic, and unfathomable by any but experts. The recent attempt of Sir B. C. Brodie to found chemistry upon a purely experimental basis, discarding the time-honoured atomic theory, and the opposition which this attempt has met with at the hands of our leading chemists, have fostered this idea. Nothing could, however, be more erroneous. Should any one have the energy to "rub up" his knowledge of chemistry by the aid of some good book, such as that we have just indicated, he will find but little difficulty in doing so. He will also be disabused of the notion that formulæ written in the new notation are such abstruse and barbarous things as the Pharmacopœial Committee seemed to have wished them to be considered. If there is one direction more than another towards which this science is now tending, it is in that of order and system. The history of some of the better known series of organic compounds is as fascinating as a novel; and this method of studying bodies in series is incomparably superior to the old method of classification according to qualitative composition.

Let us endeavour briefly to convey to the minds of our readers, whom, for the nonce, we will assume to have just that amount of knowledge which an ordinary Medical man may be presumed to possess, who obtained his diplomas some twenty years ago, what are the chief alterations they may expect to meet with on taking up a modern work on chemistry. We cannot do more than this, for to review the whole history of chemistry during that period, or even to attempt a simple enumeration of the brilliant and useful discoveries which have been made, would occupy more space than we can afford.

In the first place, then, they will find that the greater number of the elements have their atomic weights doubled, or, in other words, where we formerly wrote HO we now write H_2O; C_2H_6O instead of $C_4H_6O_2$, etc.; the atomic weights of O and C being doubled, as is indicated by the barred symbols, though the bars are most frequently omitted. The question is often put to us, "What elements have their atomic weights doubled?" A short statement, exact enough for the purpose of the Medical Practitioner, may be given. Those of all the metals in the Pharmacopœia, except the alkali metals, and silver, gold, arsenic, bismuth, and antimony, are doubled, whilst of the non-metals, oxygen, sulphur, carbon, and silicon have their atomic weights doubled. Another alteration is that by which formulæ are written in what are styled *types*; the molecules of all compounds being supposed to have a certain structure, any piece of which may be removed and replaced by a similar piece of another molecule without destroying the symmetry of either. All bodies are thus referred to four types—

$$\text{Hydrochloric acid } \left.\begin{matrix}\text{H}\\\text{Cl}\end{matrix}\right\}, \quad \text{Water } \left.\begin{matrix}\text{H}\\\text{H}\end{matrix}\right\}\text{O},$$

$$\text{Ammonia } \left.\begin{matrix}\text{H}\\\text{H}\\\text{H}\end{matrix}\right\}\text{N}, \quad \text{and Marsh gas } \left.\begin{matrix}\text{H}\\\text{H}\\\text{H}\\\text{H}\end{matrix}\right\}\text{C};$$

but all compounds may be referred to the last, and are so referred by many chemists, though the exclusive use of this type has its disadvantages. The doctrines of quantivalence, or value in exchange, and of atomicity, that underlie the theory of types, and which cause the terms "equivalent," "atom," and "molecule," to have precise and quite distinct meanings, have been well laid down by Hofmann, Odling, Naquet, and others. The marvellous beauty and order with which compounds that were formerly bugbears to the student, range themselves in series and under types, will astonish any one who has been accustomed to follow the old notation alone, and will carry their own commendation to those who wish to familiarise themselves with recent extensions in chemical science.

The doctrine of residues, resting on a purely experimental basis, and being merely a modification of the theory of types, has been forced upon us by the advances of synthetical and analytical discovery. It has served to unravel many a tangled web in organic chemistry. Dr. Odling, in his little work on organic chemistry, has illustrated its application in a striking manner. It teaches us that the most complex molecules of animal and vegetable organisms are made up of the *residues* of such simple materials as water, carbonic acid, ammonia, etc. Thus, hippuric acid has a highly complicated molecule formed out of the residues of the simpler bodies, acetic acid, ammonia, and benzoic acid; the last being again composed of carbonic acid and Faraday's bicarburet of hydrogen.

Not long ago the dogma was pretty generally held that no organic compound could be formed except from pre-existent organic bodies, but this is no longer tenable. The synthesis, or building-up, of urea, alcohol, and a host of complex substances is now an everyday occurrence, and the vastness of the field thus opened up to future research is almost inconceivable. During the past year, again, Mr. Chapman has given us a new engine of research, which he terms "limited oxidation," by which we are enabled not only to build up organic molecules, but also to break them up into their proximate constituents. By such means we may reasonably hope that our knowledge of the chemical transformations going on in the animal body will undergo a great extension.

THE WEEK.

TOPICS OF THE DAY.

An important question, bearing directly upon the prosperity of a large portion of our Profession, has lately been discussed in our columns. We mean the rate of remuneration to be demanded by Medical men who undertake attendance on sick assurance societies. We confess to having sympathies with the supporters of both sides of the argument. On the one hand, we know that no Medical man can be really remunerated for his outlay of time and knowledge—to say nothing of supplying drugs—who undertakes to attend a club of working men at two shillings and sixpence or three shillings a year per head; and we further know that many a comfortable tradesman and many a warm farmer who has risen in the social scale will still keep his name on the club books, and most unblushingly send for the club Doctor when sickness disturbs his *otium*. We, therefore, should gladly see that the

scale of payments was being generally raised, and that the rules of these societies confined their benefits to certain classes of *employés*. But, on the other hand, we cannot but feel a distaste to anything like the introduction of trades-unionism into the Medical Profession. A universal rule cannot be framed for these societies. The rate of payments ought, in justice, to vary with the material condition of the artisan and labouring classes. The workmen in some trades and in some districts can well afford to pay a higher rate than those in others; and, in addition, there are the circumstances of distance of the members' residences from a central point, and the healthy or unhealthy character of the common employment, which ought to be taken into consideration. We should gladly see the plan of fairly remunerative payment per case introduced in place of the present mode of unremunerative payment per head. But we need not remind our readers that the present system—much as it has been abused—is better than finding the artisan constantly confronting his Doctor in the county court or attending as a gratis patient at a free Dispensary.

We still seem as far as ever from settling the sewage question. In London, of course, we have got our great tunnels, and we must make the best of our bargain. But the Thames Conservancy Act will not allow the inhabitants of the towns in the Thames valley to go on polluting our river; and to apply sewage, *plus* the rainfall, to the land by irrigation, where every gallon will have to be raised by steam power, implies an enormous expense. Dr. Child, of Oxford, proposes that the Government should select a town in which to test at the national expense the value of three different modes of dry sewage—Mr. Moule's earth system, Dr. Bird's plan of precipitation by sulphuretted clay, and a system which has been in use during the last ten years in Milan. The objection that Government cannot give local assistance to one town at the general expense, receives the rejoinder that such an experiment for the good of all can only be carried on in a special locality and in the centre of a population, and that it will be very easy to make the favoured town bear part of the expense when the experiment has been fairly worked out.

A telegram from Trieste announces that, according to intelligence received from Zanzibar to October 1, Dr. Livingstone had been seen by an Arabian merchant westward of Lake Taganyika. Another telegram in confirmation has also been received by Mr. Reuter.

The archæologists have discovered another puzzle, in the shape of a polished stone axe and a split ox bone, which were found in the Malton gravel beds. The axe is of the "neolithic" variety, and is supposed to be of a much later date than the chipped flint implements which are dignified by the name of palæolithic. As the Malton beds are believed to be of great antiquity, the puzzle is how these things got there, especially as it appears from the evidence hitherto obtained that the earliest man was not aware of the existence of marrow in bones, and had not arrived at the pitch of civilisation implied in splitting them. Twenty years ago they threw away oxtails in Devonshire, and the value of horse soup is only now dimly dawning on us.

At the swearing-in of the grand jury at the Central Criminal Court, on Monday, a gentleman tried to escape serving on the plea that he was a member of the guild of Barber Surgeons. Unfortunately the plea did not avail him, as he resided outside the City of London, although the Clerk of Arraigns acknowledged that its validity would have been unimpeachable had he been a resident citizen.

The "graphical method" of research and observation in the study of disease promises undoubtedly well. It is to the ordinary modes of observing what written language is to spoken. We hope to commence next week a series of articles on the graphical method, and the results already obtained by it. These articles will include the general principles of the method; its principal applications to biology; and the facts which it has enabled its cultivators to ascertain in muscular physiology. They will be fully illustrated.

On Monday, January 13, Dr. George Buchanan will commence the course of Lettsomian Lectures at the Medical Society of London. His subject is Tubercular Disease of the Lungs in Children.

By the *Gazette*, December 31, 1867, we learn that the Queen has been pleased to appoint Mr. Peter Wyatt Squire to be chemist and druggist upon the establishment in ordinary to her Majesty, jointly with his father, Mr. Peter Squire. The latter was gazetted August 8, 1837, with the Medical staff first appointed, so that he has held the appointment thirty years—we may add, with very much credit to himself; that he has been of some service to the Medical Profession is evidenced by the acknowledged usefulness of the "Companion to the British Pharmacopœia," which has three times passed through the press during six months.

The want of a middle-class Asylum for the incurably insane in the neighbourhood of London has been lately pressed on public attention by Dr. James Ellis, of St. Luke's Hospital. Both Bethlem and St. Luke's Hospitals receive this class of patients, but only for a limited time—the latter on a payment of one guinea per week, and even this payment is not exacted in all instances. But when the twelve months during which the patient is kept have elapsed the only alternative to the expensive private Asylum is the county Asylum for paupers. To send an educated person, who, as is frequently the case, is fully alive to his condition and circumstances, to a pauper Lunatic Asylum, is equally objectionable from a Medical and from a social point of view. Of course we are aware that the charges at private Asylums vary, but at the cheapest of them the price often amounts to more than a wife and children, deprived of their income by the insanity of the husband and father, can pay for his support. We should gladly see a large, well-managed middle-class public Asylum, admitting patients at the rate of from half a guinea to one or two guineas a week, in full operation in the neighbourhood of London

The *Pall Mall Gazette* has lately instituted a comparison between the cost of maintaining and clothing the paupers in a metropolitan workhouse—the Holborn—and the amount which a decent wharf or dock labourer in London can secure for his wife and family, supposing him to be in full employment; and it turns out that the pauper is decidedly better fed, better clothed, and better housed than the labourer's wife and children. The Holborn guardians spend 4s. 10d. per week on each inhabitant of their workhouse in food, clothing, and washing alone; so that a family consisting of a man and his wife and two children costs a sum of 19s. 4d. But many a labourer in London does not earn more than 17s. a week, and out of this he has not only to find food and clothing, but house-rent—an enormous item. Now we do not assert that things are too comfortable in the Holborn or any other workhouse, but we do assert that it is a manifold injustice to tax the independent worker to maintain the pauper's wife and children in a better condition than his own.

The attention of the Home Office has recently been called by Dr. Carpenter, of Durham, to the shameful condition of Gilesgate Moor, Durham, and an investigation into the facts of the district has been conducted by Mr. A. Taylor, the Government Inspector. The houses of the poor are proved to be without necessaries or ashpits, and the water supply and drainage are utterly bad. Dr. Carpenter deserves thanks for bringing this condition of things before the Government, and we hope that the powers given by the Sanitary and Local Government Acts will be used for reformation. Mr. Taylor describes the state of the district as deplorable.

Dr. Tilbury Fox has been successful in his candidature for

the office of Physician to the Skin Department of Charing Cross Hospital.

It is understood that Dr. Aldis will act as sole Medical Officer of Health to St. George's, Hanover-square, and that no appointment will be made to supply the place left vacant by Dr. Druitt's resignation.

We are informed that Mr. Furneaux Jordan has been appointed Medical Inspector of Factories, under the Factory Act, for Birmingham and the midland towns. The appointment, we believe, is a lucrative one.

We have to record an act of princely almsgiving on the part of a member of our Profession. Dr. Chadwick, of Southport, and formerly of Bolton, has intimated his intention of giving £10,000 for the purpose of building model dwellings for the artisan classes in Bolton. He proposes that these dwellings shall be let to the labouring classes at five per cent. of their cost, and that the proceeds shall be applied to the support of an orphanage—for girls in the first instance, but, when the funds permit, for boys also.

The *Guardian* of this week states that the late Mr. Teale was the first English provincial Surgeon who tied the subclavian artery for axillary aneurism. In the *Medico-Chirurgical Transactions*, vol. xii. p. 12, is a report of the performance of this operation on March 19, 1821; and in vol. xviii. a second, dated March 19, 1831; both by Mr. Mayo, of Winchester. In the first case the patient had delayed the operation for a whole month at a critical time, and died of exhaustion on the thirteenth day. The second was successful. As it appears that Mr. Teale was not admitted a Member of the College of Surgeons till 1823, the statement above quoted is clearly a mistake. Mr. Bullen, of Lynn, we believe, had also tied the subclavian artery before that date.

The Rev. Dr. Vaughan, of Doncaster, and the Rev. Mr. Kitchin, of Christ Church, Oxford, are mentioned as possible or desirable successors to the Rev. Dr. Jelf, who has resigned the office of Principal of King's College.

THE FUTURE CORONER FOR WESTERN MIDDLESEX.

It is most important that this office should be filled by a member of the Medical Profession. In any suspicious case of homicide, there is the greatest public benefit in a double line of inquiry; the magistrate, inspired by legal traditions, is competent to sift the evidence of his army of detectives, whilst the Medical coroner views the case from its scientific side, and is prepared to examine and weigh the suggestions which chemistry, pathology, and toxicology offer. A *Medical* coroner, therefore, is a fitting complement to our *legal* machinery. The names of Mr. Holt Dunn, Mr. Haviland, Dr. Hardwicke, Dr. Letheby, and Dr. Odling have been suggested as probable candidates.

MEDICAL OPHTHALMOSCOPY.

In this month's *Med. Chir. Rev.*, besides an important article on general ophthalmology, there is one on Medical Ophthalmoscopy, reviewing the labours of Lancereaux, Galezowski, Bouchut, John W. Ogle, Hughlings Jackson, Russell (of Birmingham), Clifford Allbutt, and Teale (of Leeds). The subject is one most difficult to handle, but the writer has done his work exceedingly well. We strongly advise Physicians to study carefully what he has written, and the original works on which the review is founded. The article is written with what we may call healthy scientific feeling. The new nervous symptoms—we may fairly call amaurosis from optic neuritis a new symptom; *i.e.*, new since Helmholtz—are placed in intelligent relations with other important symptoms. The mere heaping together of cases of nervous symptoms *and* intra-ocular changes has a very small value. Those who have not yet learned the use of the ophthalmoscope may do so most easily by attending the evening demonstrations at Moorfields. These demonstrations will, we trust, be shortly reannounced. The Physician will find the works of Hulke and of Zander of great use. The latter has been translated by Carter and enriched by most valuable original notes, especially on optic atrophy.

DR. HARLEY AND THE STUDENTS OF UNIVERSITY COLLEGE.

A meeting of the past and present students of University College was held in the physiological lecture theatre, on Monday last, to congratulate Dr. Harley on his return to town, and on his recovery from the painful and tedious illness which has necessitated his retirement from all active work for the last two years. Mr. Bruce took the chair, and, having explained the objects of the meeting, called upon Mr. Squarey to propose the first resolution. Mr. Squarey, having briefly alluded to the circumstances of Dr. Harley's illness, reminded the meeting of the terrible blow to a man's hopes and prospects a two years' absence from town must necessarily be at the very time when success seemed almost certain, and concluded by proposing the following resolution: "That this meeting desires to express its sincere sympathy with Dr. Harley during his painful and protracted illness, and begs to offer him its cordial congratulations on his recovery and his return to the active duties of his Profession." The motion was seconded by Mr. Cluff, supported by Dr. Wiltshire, and carried unanimously. A deputation of four gentlemen was appointed to convey this resolution to Dr. Harley.

LEGISLATION AGAINST OVERCROWDING.

Another year has opened without anything effectual having been done to remove or mitigate the evils of overcrowding. The amended Sanitary Act of 1866 has proved to a great extent abortive, because every good and wise provision it contains can only be put in force, as matters now stand in London, at an impracticable cost of immediate suffering. The present homes of labour, stuffed and crammed as they are to an excess incompatible with health or decency, cannot be cleared or appreciably thinned of inhabitants, because there are not homes for the people to go to. This was foreseen and foretold when the Artisans' Dwellings Bill was deferred to a more convenient season; and the warning was reiterated by its promoters last session, unhappily in vain. That essential measure has been introduced for the third time by Mr. Torrens, and it stands for second reading on February 26. The friends of public health and public morals ought in the interval to press upon Government the duty of giving some such measure their active support, and upon independent members of both Houses of Parliament the urgent need which exists for it.

FROM ABROAD.—CHARLATANISM IN BELGIUM.—PROMOTION OF M. MICHEL LÉVY.—NOMINAL RIGHTS OF DISCOVERERS.

We often hear of the desirableness of additional legislation for the prevention of quackery; but really the experience of foreign countries in which repression is sought to be effected by the agency of the law is not very encouraging. In France, offenders are continually being proceeded against and fined; but their number never seems to be diminished, and the complaints of the Profession of the rampant condition of charlatanism are as loud as ever. The Belgian *Presse Médicale* contains an account of the successful prosecution of a notorious offender, but the remarks with which it prefaces the narrative show how little real utility may be anticipated from the procedure. "If," says the editor, "we have not, for some time past, kept our readers informed of the exploits of the charlatanism which invades us more and more, it is because all our efforts have remained sterile, and that charlatanism, whatever may be its variety, is delighted whenever it becomes the subject of notice. There is no doubt that in speaking of it

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we subserve its interests, by furnishing it with a profitable advertisement. We have not been silent from indifference, but from powerlessness."

Still, a notice is subjoined of a notorious quack, one Gerard Schmitt, a Dutchman, who is now doing a roaring trade in Brussels as a magnetiser. Inspired by his knowledge from the far East, he declares himself able and willing to cure not only the ordinary run of chronic diseases, but also the incurable ones, and especially cancer. Tales of his success are published by the newspapers, and what is more strange is, that his lies obtain a sort of sanction from the authorities consenting to take the affidavits of the credulous dupes, who proclaim to the public the reality of their illusory cures. He has been many times brought before the tribunals, but the trifling penalties he has been condemned to have been useful rather than hurtful to him, enabling him to represent himself as a victim of the malice and envy of the Profession. Fines of from 50 fr. to 100 fr. were of little consequence to one gaining his thousands. A very bad case having occurred, the Brussels Medical Society has succeeded in getting a heavier fine imposed, with what eventual effect remains to be seen. A musician in the regiment of the "Guides" went to him on account of an affection of the chest, and, as he was not well off, Schmitt reduced his first demand of 1500 fr. to 40 fr. The magnetic passes having proved inefficacious, as also magnetised ointments and tisanes, the quack desired his patient to bring him some of his urine. "I shall magnetise this," he said, "and you must take it by spoonfuls, for it is by the urine strength is lost, and by its incorporation it will be regained. The dupe did as he was bid; but, enteritis and dysentery following, he unfortunately died. Plenty of witnesses were forthcoming to testify to the ability of the doctor, amongst whom figured a commissioner of police, instantly cured of a sore throat of old date, and a group of ladies happily relieved of cancer without operation. He was fined 400 fr.

The recent promotion of M. Michel Lévy, the able chief of the Medical Department of the French Army, has given great satisfaction, and is spoken of by the *Union Médicale* in the following terms:—

"This elevation of M. Lévy to the rank of Grand Officer of the Legion of Honour has been received with great satisfaction, not only because it is a just recompense of the meritorious services of our eminent *confrère*, but because it establishes an honourable precedent in the Medical service of the Army. Although in civil practice M. Rayer and M. Nélaton, the one the Physician, the other the Surgeon of the Emperor, were both raised to this dignity, M. Lévy is the first military Surgeon who has received this distinction. In his person a custom or tradition has been broken through to which Larrey—the illustrious Larrey even—was a victim. Made commander on the field of battle at Eylau, he died in 1842, after forty years of noble services, without even having been able to get beyond that step. Marshal Niel has at last come to understand that the Surgeon who tends and saves the wounded is worthy of the highest recompense."

In a discussion, almost a passage at arms, which took place the other day at the Académie des Sciences, between two distinguished astronomers, MM. Delaunay and Le Verrier, a point was raised which involves a principle applicable to all branches of investigation. On November 5, the 91st small planet was discovered at the Marseilles Observatory, and M. Le Verrier, in announcing the fact, attributed the honour to M. Stéphan, the Director of the Observatory. This brought up M. Delaunay, so often his antagonist in the Académy, who declared that the discovery was really made by a young man attached to the Observatory, whose name has been nowhere mentioned. This fact M. Le Verrier did not seek to deny, while justifying the procedure. He observed that the arrangements for the search for these small planets and comets have been so organised at the Marseilles Observatory, that persons possessed of no astronomical knowledge whatever may be employed on it. Such persons have a just right to be paid in proportion to the zeal they display, but it is doing them no favour to parade them before the public, as if they were astronomers. We can only recognise as such those who are possessed of the necessary instruction, and know how to proceed without the aid of others. This did not satisfy M. Delaunay, who observes, "Here we have M. Le Verrier not fearing to inform us that ignorant and absolutely incapable young persons are employed at the Marseilles Observatory. This is already an enormity; and the deliberate determination with which they are despoiled of any discoveries they may make is an utter systematisation of the *sic vos non vobis*. It is quite certain no Director of an Observatory, except M. Le Verrier, would venture to assume the responsibility of such a theory, and as for me, I think it a duty not to allow such ideas to be introduced into this Academy without protesting against them." This censure brought M. Le Verrier to his legs immediately. Apostrophising his fellow Academicians with what the French call *vivacité*, "Tell me," he exclaimed, "whether that which M. Delaunay reproaches me with is not what is done by you all. When you are assisted in your laboratories or your studies, do you name the young people who have calculated, experimented, or worked in any way for you and under your direction? Why, then, are we called upon to name those who assist us, and to represent them to the public as astronomers? To do what we require at their hands, they need not even know how to read. All they want is to have good eyes." He went into the details, showing how purely a mechanical procedure it was that these youths have to perform, they having simply to indicate the advent of the new star on the reticulated field of vision, and appeal to the director for the necessary confirmation and calculations. M. Legrand, the able reporter for the *Union Médicale*, takes part with M. Delaunay, and thinks that these mere observers are hardly dealt with in having their names kept back when they have the luck to make discoveries. We cannot agree with him; for where is the line to be drawn if every person is to be named who, in however mechanical a manner, without any mental process being requisite or employed, may have personally contributed to the advancement of science? Davy was indeed justly blamed for not sufficiently acknowledging the services rendered him by Faraday; but surely it would not be expected that this last-named philosopher should attach the name of Anderson to any of his discoveries, notwithstanding he was always anxious and ready to acknowledge how much he owed to his useful co-operation in carrying out the necessary details.

SPECIAL REPORT ON THE EPIDEMIC AT TERLING.

By ALFRED HAVILAND, M.R.C.S.

In the small village of Terling, in Essex, within forty miles of London, having a population of barely 900 persons, there has of late been raging a fearful epidemic. In less than six weeks more than 170 persons have been struck down by typhoid fever, of whom 15 have died. Terling lies on the banks of the river Ter, is about three and a half miles W. from Witham, and eight miles N.E. of Chelmsford. Its population is estimated at 902, spread over 3206 acres of land, which include about 400 acres of wood and 41 of waste. It is one of those places whose population does not seem to have increased of late years, as I find that in 1841 it was 921; in 1851, 900; and in 1861, 902. The population is strictly an agricultural one, and the principal beverage of the male portion is beer, which, I understand, is pretty freely indulged in; and it is noteworthy that the present calamity has not fallen to any extent on the men, but chiefly afflicted the women and children, who are generally the water-drinkers in all communities. The geological formation of the site of Terling and its immediate neighbourhood belongs to the lower eocene (London

clay), capped by a treacherous superstratum of *drift gravel* analogous in every respect to that which overlies the clay in many parts of our metropolis. I say treacherous, because we all know too well how we have been deceived by the sparkling waters of its springs. A gravelly soil was first selected on account of its characteristic dryness, and power of absorbing and deodorising what drained through it from the habitations of men. It was selected as a friendly soil, and would have remained so, but man must needs first let it purify his surroundings by absorbing matter which otherwise would have contaminated the atmosphere, and then, in his blind folly, dig into it for water, and drink in solution deodorised abominations which, in their original shape, would have warned him through taste and smell.

The wells at Terling are surface wells, and nearly all open. They vary in depth from seven to twenty-five or thirty feet, according, in fact, to the depth of the gravel; and it is remarkable that nearly all of them are situated *below* the level of the houses to which they are attached, so that on taking your stand at a well mouth, and looking towards the higher ground, you get a good view of the pigsties and privies belonging to the people who draw their water from it. There are ancient drains, cesspools, and other reservoirs of filth, embosomed in the drift gravel; where to find some of the old drains, which in all probability have been choked for ages, is only known to a few, and when they die, this knowledge will die with them. I was asked a very pertinent question—how it was that the rich and poor were afflicted alike. I simply replied that I believed that the fever field was as well cultivated in Terling Place as in the lowest hovel in Terling village. My experience leads me always to look with suspicion upon the drainage of great old houses; let the occupiers do what they will, in many instances, still something always seems to be left behind.

The epidemic is typhoid fever, which may be here studied in all its varied forms. It generally has been ushered in by shivering and pain in the head, great tenderness over the lower part of the bowels, creamy tongue, changing to a dry brown fur in the more severe cases; sordes of the gums, delirium, and ochreous evacuations, and, in some instances, hæmorrhage from the bowels. Petechiæ, I am assured by Mr. Proctor and Mr. Barron, have been well seen in some cases, but decidedly not in all. I saw a rash on one or two children which had a more scarlatinal than petechial character. I am informed also that in some instances sudamina have been very troublesome. I could not ascertain that any post-mortem examinations have been made. There had been, during the year 1867, an epidemic of measles, which had carried off two children. As a rule, the village is a healthy one, although Mr. Proctor informed me that, after a great many years' experience, he could safely say that fever was more or less always hanging about; and he drew my attention to the fact that the labourers' cottages are so badly constructed as often only to allow of about 140 cubic feet of space for each individual during the hours of sleep. Consumption seems to be not unfrequent in the village, and I am told that idiocy also prevails.

The first case of fever that occurred was at the Dairy Farm, the subject being the daughter of Lord Rayleigh's gardener, who had just returned from a visit to Frome in Somersetshire, where, however, according to a letter from Mr. S. J. Parsons, bearing the date of January 4, 1868, fever has not been lately epidemical, although there have been five or six cases in the Union. It is very evident that, whether the disease has been imported to Terling or not, the place was well prepared either to foster a fever germ coming from without, or engender any amount out of the abundant materials which have been accumulating around its dwellings. The peculiarity of the outbreak of fever is its suddenness, and wherever I went, the Dairy Farm seemed to be the point considered as the *fons et origo mali*. It appears that from here milk is supplied to all the village, and that twice a day at least there is hardly a family some member of which does not visit it. Lord Rayleigh's household is supplied therefrom, and so is the humblest cottier's. Some of his lordship's servants have been struck down, and one has died, and I cannot refrain from bearing my testimony to the liberality and courage of both Lord and Lady Rayleigh, who remain at their posts ready at all times to afford their assistance. The parochial authorities are most liberal, and wine and beef-tea flow in every direction. Mr. Smith, at the Rayleigh Arms, converts about eighty pounds of beef into good soup every day. Mr. Shee, the registrar and relieving officer, has been twenty-six years a resident in Witham, and has never known any severe epidemic till now. Terling, he says, averages between twelve and fourteen deaths per annum—in 1866 the actual number registered was eleven—whilst now in one fortnight fifteen deaths have occurred from one *preventible* disease. The Medical men perform their duties cheerfully, and I feel very much obliged for the assistance they have afforded me; my thanks are especially due to Mr. Barron, who was kind enough to accompany me to the cases under his care, by the bedsides of which I had opportunities of seeing the epidemic in almost every stage.

November was very dry; in fact some of the wells were dry about two months ago, so that water had to be borrowed. There was some rain in the latter end of November, and a heavy fall of snow during the first few days of December, and almost coincident with the thaw, which poured a large amount of water into the surface wells, the fever made its appearance simultaneously almost in every part of the village, so that it is impossible to trace it from house to house, or from one part of the village to the other. The cause seemed to be universal, and the sequel has undoubtedly proved it to be so.

A gentleman has been sent down by the Medical Department of the Privy Council to investigate the matter; but although everybody is willing in Terling to do as they are advised, I could not find that, even after the water had been examined and condemned, a single well had been ordered to be closed, or means taken to secure for the inhabitants a supply of water which could be depended on. This ought to have been done within eight-and-forty hours after the condition of the well water had been ascertained. It is notorious in the village that in the contents of some of the wells soapsuds and feculent matter have actually been discovered. I will give an instance of the effect of the drinking water. One family, named Giggins, drank from their well up to a certain date, and remained free from fever; it, however, became dry, and they had to borrow water from a well below the level of their own. They immediately became seized with fever, and, of course, have never been free from it since. I could multiply instances; in fact, there is hardly a case but what is traceable, either directly or indirectly, to the water. In some of the wells the water actually stinks in the summer. I would suggest:—

1st. That the wells be closed, and one selected from the highest spot above the village for the supply of the inhabitants, so soon as it is ascertained to be free from contamination.

2nd. The erection of a temporary fever Hospital of plated iron where all cases, so soon as possible, should be taken, and another devoted to convalescents.

3rd. The purification of the cottages by white liming, and a plentiful use of carbolic acid to all evacuations.

4th. A complete and thorough investigation of all drains, cesspools, etc., whether public or private.

5th. An establishment for the plentiful supply of milk.

6th. That the Medical men of the district be formed into a staff, each member of which shall take his turn of duty, so as to distribute equally the great labour that is now irregularly borne by all.

7th. The sinking of an artesian well in an elevated position, so that a supply of water from the chalk underlying the London clay shall be available for the inhabitants so soon as practicable.

8th. The appointment of a person independent of local interests to superintend the investigation of the drains, etc., and the public health generally.

Bridge-road, St. John's-wood, N.W., January 8.

Appendix.—From the Death Register.

Initials.	Sex.	Age.	Name of Disease.	Date of Death.	Parish.
				1867.	
S. S.(a) .	F.	44	Continued fever 13 days; diarrhœa	Dec. 14	Terling
S. P. .	M.	9	Typhoid fever 25 days	,, 22	,,
H. H. .	F.	19	Phthisis, and typhoid fever 9 days	,, 25	,,
M. A. S. .	F.	26	Anæmia, typhoid fever 14 days	,, 27	,,
M. A. T. (b)	F.	11	Typhoid fever	,, 28	,,
E. C. . .	F.	25	Typhoid fever 4 days	,, 26	,,
E. R. . .	F.	18	Typhoid fever 14 days	,, 29	,,
D. T. (c) .	F.	21	Typhoid fever	,, 28	,,
J. G. . .	M.	28	Typhoid fever	,, 28	,,
J. G. . .	M.	20	Typhoid fever	,, 30	,,
				1868	
M. A. L (d)	F.	32	Typhoid fever	Jan. 3	,,
S. A. . .	F.	17	Typhoid fever	,, 3	,,
O. A. . .	M.	20	Typhoid fever	,, 4	,,

(a) This was the first fatal case. The woman was a poor, dirty, thriftless person, and the nurse who was employed to attend her, E. C., caught the fever and died in four days.

(b, c) These were two out of five cases in one family.

(d) A housemaid of Lord Rayleigh.

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

(*Continued from page* 21.)

Thursday, December 26.—Again visited M. Bazin's wards. In the children's ward were numerous cases of common ringworm, and one or two of favus, all under treatment by epilation, etc. There was not a single case of alopecia areata (tinea decalvans), and my impressions are confirmed that this affection is very much less frequent in France than with us, whilst favus and ringworm (tinea tonsurans) are far more common.

In the men's wards I was shown a case of true leprosy, the patient being a man of 32, a native of the Isle of Bourbon. He has now suffered from the disease for several years. Both upper extremities are paralysed as regards sensation, and much weakened also in muscular power. The left is quite useless; the right he can move a little. Sensibility is so far lost in the skin, that he has burnt his knuckles severely by resting them on the hot stove. On the trunk are numerous large discoloured patches of skin, which are anæsthetic.

Another case which interested me much is an example of molluscum simplex (*seu* fibrosum); its subject is a man of about 30, whose trunk is covered with small tumours exactly like those depicted in one of the plates in the last fasciculus of the New Sydenham Society, excepting that most of them are much smaller. Some of them are subcutaneous, but others, and the greater part, involve the epidermis. The history is that they have been present from early childhood.

Mr. Herbert, M. Bazin's able and zealous *interne*, was kind enough to take me through the splendid suite of baths belonging to this Hospital. It is probably unequalled. In addition to medicated baths of various kinds, both of vapour and of water, there are arrangements for douches, pulverisers, etc., of the most varied description. In one the patient stands in a sort of round cage of hoops, and is squirted at with great force from a thousand minute holes in the latter, all aimed at a common centre, whilst from above the shower descends upon his head. In another he or she sits as on a close stool, whilst a fountain ascends upon the perineum, into the vagina or elsewhere. Some of the douches are very powerful, and are designed rather for the treatment of localised rheumatism than of skin diseases. Of the baths chiefly in use against the latter those containing sulphur, alkalies, mercury, or starch are the most employed. The last is in great request, and is considered much more soothing to the skin than plain water.

A Museum of Skin Diseases has been recently commenced at St. Louis, and, as there are many earnest workers, it will doubtless soon become a very valuable collection. The plates composing Hebra's magnificent atlas are hung on the walls, and also a series of drawings executed under M. Devergie's superintendence, together with the photographs recently published by M. Hardy. In the cases are numerous wax models, contributed by MM. Bazin, Hardy, and others, some of them very good, others indifferent, but all likely to be of great use. Several of the best illustrate a disease which is new to me (at least, under that name), and which M. Bazin has recently described under the designation of Hydroa. It resembles pemphigus in some of its features, and herpes in others. I shall probably learn more about it presently. May I venture one hint to the collectors of St. Louis? It is this, that neither artists nor modellers be allowed to take the slightest liberties with the subjects which they delineate. Let there be no introduction of spots from other parts of the patient's skin to the portion depicted. Let the model or drawing be a fac-simile, without either improvements or additions. Many published drawings and some models bear such clear evidence of their being compositions, that their value and reliability are much lessened. It may seem superfluous as regards models (which ought to be made from casts) to mention this, but I know something of the proclivities of non-professional artists, and speak *haud ignarus mali*. A few additional spots are so easily put on, and appear to add so much to the definiteness of the piece, that the temptation is very great. Even to the Surgeon the introduction may sometimes seem to be an advantage. It is, however, never safe. We never know whether or not the exact position and arrangement of the patches may prove of the utmost importance in diagnosis. It has been proved to be so in herpes, for example, and, guided by our new knowledge of this disease, it is quite safe to assert that most of our published portraits are untrue, and have clearly been constructed instead of copied.

The St. Louis Museum has, as yet, no catalogue, but most of the models, portraits, etc., have a diagnosis affixed. If, without presumption, I may hint again, I would suggest the extreme value that a museum journal would have which should contain the clinical history of all cases which have been delineated. Probably it is not too late to obtain some data respecting most of the patients who have as yet furnished subjects, and, as regards future ones, this will easily be done. The journal should, of course, be accessible to all visitors. This museum must soon, as regards its speciality, rise to European importance, and its development is well worth any trouble and any cost.

I visited the museum twice, once under the guidance of Mr. Herbert, and a second time under that of M. Lailler.

It interested me to note that it does not contain, either in model or in drawing, any representation of molluscum contagiosum. I believe no Continental atlas depicts this disease, and am more and more convinced that it is much commoner in England than elsewhere.

Photography does not seem in much favour here for the representation of skin diseases, nor are M. Hardy's series of portraits thought to be good. It is objected that without colour the photograph shows little or nothing, and that, if hand-colouring be put on, you destroy at once the special value of a photograph—its absolute accuracy as to detail.(a)

In M. Lailler's clinique, I saw an advanced case of rodent cancer. The poor woman had lost the greater part of her face. Palliative measures only had been adopted, the disease being considered incurable.

Friday, December 27.—Again at St. Louis. The clinique did not begin till 9.30, and M. Hardy occupied about an hour in going through his ward of seventy-two beds. His cases were almost exclusively skin diseases, with the curious introduction of one case of phthisis, two of disease of knee joint, and one of ovarian dropsy. Nearly a third were, I think, examples of the different forms of eczema, and about another third were syphilitic. Some of the latter were under treatment by the hypodermic injection of solutions of the biniodide of mercury. The Professor, according to French custom, does all the injections himself, and, during the visit, he operated on nearly a dozen, including two young infants. A young woman, who had been thus treated on former occasions, showed on each arm a large inflammatory swelling of cellular tissue which looked very likely to end in abscess.

(*To be continued.*)

(a) Although I have in the opinion expressed as to the diminished value of photographs applied to diseases of the skin, I must be allowed to except from adverse criticism some of the beautiful portraits published by Mr. Spare. They are very superior to the French series, and have stood the test of time well with a fair regard to accuracy. Still, however, even in them the purchaser is almost as much at the mercy of the artist as in the case of chromo-lithography. The photograph guarantees form and outline, and that is all.

ABYSSINIA.

We have received the following from a Medical officer accompanying the Abyssinian expeditionary force:—

Annesley Bay, December 18, 1867.

Here I am, and here have I been for the last five or six days. I have not as yet moved further than two miles from the shore, in consequence of a number of arrangements and details which I have had to carry out. The best description I can give of the place of disembarkation is, that it is a flat sandy plain of an irregular half-moon shape, with high mountains rising perpendicularly in the distance. The ground is covered with various shrubs—such as the prickly mimosa, and with one something like juniper.

But I must give you a short account of our proceedings from the time of our reaching Alexandria in the *Mendoza*, which we did on November 21.

Most people know something about Alexandria. It is a dirty, dusty, noisy place, in which the influence of the French is plainly perceptible in the ornamentation of the squares, etc., although, it must be admitted, they are very tawdry imitations. Our stay being a short one, we had only time to take a hurried drive round the suburbs and catch a glimpse of Pompey's pillar and the new Suez canal. We left Alexandria the following morning, and arrived at Cairo about midday, where we stayed until the day following to purchase

horses. As the railway took us through part of the rich alluvial tract of the Nile, and we saw ample evidence of the fertility and the corn-producing capabilities of Egypt, I could not help remembering that this rich country—the highway to India—had been once held out to us as a tempting bait by Russia, and this carried me back to the time of the Crimean war, where I began my career as a military Surgeon. There does not appear to be much hope for the people inhabiting Egypt. With the exception of a palace for the Viceroy or the mansion of a pasha, there did not appear to be any houses fit for human habitation. The native people live in wretched clay-covered hovels, in a condition not much above that of the cattle they tend, and not at all calculated to give us a good idea of the position of sanitary science in this ancient land, which once had the benefit of the presence of the greatest of ancient sanitarians—Moses, the originator of the dry earth system, by the way. The police in Cairo do not receive their pay with too great regularity; however, they sell their horses, it is said, to obviate this difficulty, and I suppose we received most of ours from that source.

Cairo is truly Eastern; but I will not put a strain upon your patience further than by telling you that I got an excellent horse for £24 before leaving the capital of Egypt. We left Cairo in the morning, and reached Suez the same night, and went at once on board a ship which was to proceed to Abyssinia, but we were delayed in harbour for several days. There is little enough to be seen about Suez, a small, dirty Eastern town at the head of a sandy bay, with high mountains in the distance. D.D.'s need not be reminded, but M.D.'s may, that it was here, according to some, though not according to Dean Stanley, that the Israelites crossed the Red Sea. We left Suez at the end of November, and saw, the following day—to finish my allusions to Old Testament geography—what we were told was Mount Sinai, the highest peak of a rugged chain of distant mountains. The voyage down the Red Sea was very tedious—at least most of us felt it to be so, suffering, as we did, from a stifling heat of from 84° to 86° Fahr., not to say anything of the aroma of 300 mules, with a number of sappers possessed of very musical tastes.

We saw and passed Massowah early in the morning of December 7, and arrived at Annesley Bay about midday, and as there were no tents for us on shore, we remained on board the steamer until she was ordered to proceed again to Suez for another cargo of mules, when we transferred ourselves on board the only one of the three Hospital ships which has yet arrived—viz., the *Golden Fleece*. Anybody, knowing what must be the state of a camp at the port of debarkation for troops, will readily understand that *we* were only too glad to be so well lodged; but it must be a very different thing for invalids if they are to be received and treated in the Red Sea on board these big iron steamers. If you made the voyage of the Red Sea on a raft, you would feel as if you were being broiled, and steamers, if ventilated in such a way as to be capable of blowing the patients out of their beds, would be hot and stuffy if anchored at Annesley Bay.

You will naturally expect some account of what is going on here, and of what is taking place up the country; and reliable information is about the most difficult thing to obtain. Since my arrival I imagine that I have heard more lies than in any previous place in the same space of time. At one time it is that Magdala has been invested by the Prince of Shoa, who is in treaty with Colonel Merrewether for giving up the prisoners; at another, an English officer has been robbed and killed by the natives; then that his ammunition has only been stolen. However, the most important rumours are:—That there is a great dearth of water on shore; that 50,000 gallons are wanted daily for the supply of the animals; next day this news is contradicted; but the want of water is a fact, nevertheless. There is, by all accounts, plenty of it higher up, but it cannot be brought down to the animals for want of transport; and the animals remaining in camp below were very lately panting from thirst, while there was plenty of water at Komayli, the first station up the country—only they could not be sent there without their pack-saddles. These have, however, arrived in the *Great Victoria*, and I suppose the animals will be, or have been, rapidly pushed on. One thing is certain—there are numerous dead camels and mules on the shore and in the sea. The muleteers have deserted in great numbers, and the mules, consequently, have been left to roam about the country according to their own sweet will. It is said that there are plenty of muleteers in Bombay, who have been receiving pay for the last two months. Things are turning up all right; but at first it appeared as if we wanted, beyond all things, a head centre; no one thing would exactly fit into another, and everything seemed to be going on in the happy-go-lucky style. However, there is no enemy in our front—beyond the deserted muleteers—to attack our convoys as they go up the country. As to the staff of Doctors, we shall half of us get dyspeptic or bilious before our services are required. As we have no tents, we are prevented from getting sunstroke by exposure on shore. The servants, who are with our horses, have to rough it as best they may.

I have written frankly of what I have observed, but I am hopeful that things will assume a more and more favourable aspect. They are getting on very well with the pier and railway. I have seen them sinking those American pumps; but hitherto they have not been successful in getting anything but a brackish dirty fluid.

December 19.—I was on shore yesterday. Things are certainly wearing a more favourable aspect; order begins to be visible where there was a very chaos of confusion, and very evident progress has been made in the construction of the pier and railway. There are rumours to the effect that doubts are entertained about the permanency of the water supply up the country. The engineers have been still unsuccessful in getting water with their pumps. There has been a great deal of disease among the animals, but this is fast disappearing. The cavalry are said to have lost 200 horses. The health of the troops is very good, and their spirits equally so. I have not yet been any great distance from Annesley Bay, but I am told the scenery in the country above is very fine, and the climate pleasant, but decidedly cold. So much for altitude as opposed to latitude, for the low country is hot enough, and neither in its scenery nor climate would it be termed a pleasant land. As the troops are healthy, you must not blame me for the dearth of Medical news. I understand that the ration issued to the soldiers is of very good quality. It consists, I believe, of 1 lb. of bread, 1½ lb. of flour, 2 oz. of ghee, 4 oz. of rice, 12 oz. of potatoes, onions, salt, sugar, tea, a small allowance of rum, and some wood for cooking, with fresh or salt meat, I presume. There will be Hospital accommodation provided, as far as the British part of the force is concerned, for about seven per cent., which will be something under 300 patients, if the strength be estimated at 4000. The sick will be lodged in tents, and I hear that it is proposed to have three divisional field Hospitals. Some of the Medicos from India state that it has been recommended to issue to all troops one pint of cocoa, with sugar and biscuit, as the first meal of the day, and when fresh meat cannot be procured to have recourse to the preserved varieties in preference to salt meat, for obvious reasons. A waterproof sheet, I hear, either has been, or is to be, issued to every soldier.

On the whole, matters are not of an unfavourable augury. The worst information I know of is this: the expedition may occupy two campaigns, and if so, the delay will augment our present difficulties and develope new ones.

As the captives are at Magdala, we shall, I suppose, proceed thither, and it is very fortunate that Magdala and not Gondar is to be our destination. To get to the first we have only to surmount the difficulties presented by the chain of mountains running north and south; while to reach the latter, Gondar, our march would be intersected by another line of mountains running east and west, down the valleys of which run big streams, tributaries of the Nile.

I cannot hear anything up to this moment which would lead me to suppose that the health of the troops is otherwise than excellent.

Chaps and Chilblains.—For dryness of the hands, M. Cazenave recommends the following preparation:—Two yelks of fresh eggs, two spoonfuls of oil of almonds, one ounce of rose water, and half a dram of tincture of benzoin. For chaps of the fingers he paints them every evening with tincture of aloes from two to four parts, and glycerine thirty parts. In chaps of the lips he employs oxide of zinc one part, cold-cream, cacao butter, and oil of almonds of each fifteen parts. To prevent chilblains he advises the use of lotions containing liquid ammonia slightly diluted with water strongly aromatised with lavender water or eau de Cologne. When they have appeared, we should employ ointments composed of the fioraventi balsam, tincture of benzoin, or balsam of Peru; and the following ointment may often be advantageously resorted to:—White precipitate and chloroform of each one-third of a part, cold-cream thirty parts.—*Gaz. Méd. de Lyon*, 39.

REVIEWS.

RECENT WORKS ON ONCOLOGY.

(Concluded from p. 22.

Mr. Moore's object is twofold. "In the extensive ulcerations of the face," he says, "which are distinguished by the graphic epithet rodent, I think that I recognise a cancer devoid of every one of the characters which make up our ideal of a cancerous disease, except such as are purely local." First, therefore, he sets himself the task of proving the correctness of his belief. Secondly, he desires to show that many cases of the disease in question, which would commonly be pronounced hopeless, are capable of cure by means of the knife and caustics. On the second and more important point, the facts which he brings forward are of great value, and entitled to great respect. On the other point we regret to be compelled to differ from him. The acceptance of his views would, it appears to us, only introduce still further confusion into an already complicated subject. "These great and disfiguring maladies," says Mr. Moore, "a combination of growth and ulcer, possess all the essential qualities of an ordinary scirrhus, without any or with very little of the faculty for dissemination in the body, which may towards the close of life render cancer universal. By permanently retaining, as scirrhus also may do, only a local character, they show how far from essential to cancer is any constitutional property." It is hardly necessary to point out the manifest *petitio principii* involved in this statement. The cancerous nature of these ulcers is the very thing which has to be proved; until that has been done, no valid inferences with regard to the essence of cancer can be drawn from their characters. And in the attempt to prove their cancerous nature the author seems to us to have entirely failed. There seems to be no reason why, according to his arguments, the definition of cancer might not be made to include various other forms of ulceration. The only positive evidence brought forward by him that we can discover is to this effect—that in one case "a portion of the solid substance taken from the interior of the frontal bone showed just such appearances as the ordinary cancer of the lower lip—epithelial cells, brood cells like the section of an onion, many fragments of cells and nuclei, very distinct, round, dark, granular cells, and oil. An equal resemblance to epithelial cancer was noticed by my colleague, Mr. Hulke," in some fragments from the eye in another case. And M. Lebert is cited as a witness; but his words are, "The base of these ulcers was smooth and compact, and one recognised on their surface no other elements than those of suppuration, mixed with a little epidermis." How these expressions of Lebert can be shown to favour the idea that the ulcers are cancers, we cannot understand. Assuming, however, the correctness of the two observations quoted, the utmost that they can be made to prove is, that elements resembling those of epithelioma are not always absent from the deepest parts of "rodent," as the author loves to call it. But when a statement is made which is diametrically opposed to the doctrines which have been generally received on the authority of laborious and competent observers (see, for example, "Paget's Lectures on Surgical Pathology," p. 45), the evidence required to carry conviction is something more precise and copious than that produced by Mr. Moore.

In the endeavour to show that the absence of secondary cancerous deposits in the glands is no reason for distinguishing this disease from cancer, the author uses a line of argument which, though not without parallel in the rest of his work, appears fatal to his reputation as an exact reasoner. It is this:—In scirrhus secondary deposits are sometimes, though rarely, absent. In these ulcers of the face they are sometimes, though rarely, present. Therefore there is no distinction between the two diseases, so far as the glands are concerned. But the argument should surely be stated thus:—In scirrhus cancerous deposits in the glands are almost invariable. In these ulcers they never occur; but sometimes, though rarely, moderate and transient enlargement of neighbouring glands does occur. Therefore there is no distinction which is not quite reasonable. By a similar argument it would be easy to raise a strong presumption of the cancerous nature of gonorrhœa.

We have not space for the examination of other reasons given by the author for his belief, though we are far from admitting their cogency. In truth we fear that his good horse "Rodent" has run away with him. But the part of his work which deals with facts and cases—that is to say, from page 45 to the end—is an excellent record and a valuable contribution to Surgery. The fourteen cases reported are far better worth attentive reading than the somewhat profitless discussion as to whether the phenomena which attend them shall be called by a particular name. The treatment by the knife and chloride of zinc is rational and bold, and deserves the success claimed for it by the author. Every Surgeon who has a "rodent" to treat *must* see what Mr. Moore can tell him about treatment, whilst the singular account of the epileptiform attacks which follow the use of caustic will attract the attention of most Physicians.

The principle on which Mr. Pemberton has proceeded—a principle which cannot be too strongly recommended to all writers on scientific subjects—is well stated in his brief and workmanlike preface. "It is far more useful, in my judgment," he says, "for individual Surgeons to set forth the results of their own experience and observation, than it is to produce more ambitious and extensive treatises filled with references to the opinions and writings of other observers." If this rule were observed, we should have more authors and fewer bookmakers.

The clinical observations are preceded by two clear and tersely written chapters, on the characters distinguishing malignant from benign growths, and the characters of the species and varieties of malignant growths. The distinction between the two classes of formations is based, if we may so express it, on the biography of the tumour, rather than its intimate structure. The cases narrated amount to ninety-four, and include instances of all the principal varieties of cancer. The illustrations are numerous and good, and have been executed from the author's own dissections. In short, the book is a most creditable monument of a successful practice

Mr. Pemberton says that the "local" nature of scirrhus at any period of its growth is open to doubt. He describes the varying rapidity and intensity of the disease in its more "acute" and more "chronic" forms (and when we say *describes*, be it understood that he backs his opinion by cases), in the forms that rapidly ulcerate, and in those that prove fatal without ulceration. The evidence of hereditary transmission is small, but positive. The removal of scirrhous breast scarcely lengthens life, and the operation is justifiable rather as a means of mitigating the pain than as a means of extirpating the disease. Such sentiments show a ripe experience, a conscientiousness, and a cool judgment that has gone beyond the enthusiasm of youth.

The distinction of cancer from annular stricture of the rectum is well given, and the frequent concurrence of the diseases pointed out. The propriety of resorting to colotomy is well argued, and illustrated by cases. Scirrhus of the thyroid (primary) is exemplified by one case. Encephaloid of the cranium and face, and encephaloid tumours not connected with bone, are the subject of interesting chapters, in which the alliance of the fibro-plastic tumour is not left unheeded. The union of encephaloid with osteoid cancer, and the propriety of disarticulation at the hip for cancer of the thigh bone, are treated of in the thirteenth chapter. That on melanosis reminds us of Mr. Pemberton's existing work on this kind of tumour. Epithelial cancer of the lip cannot, in Mr. Pemberton's opinion, be fairly traced to the pipe, or other local cause. He advises free and early extirpation; as likewise for that of the tongue, scrotum, and other organs. The last chapter, on rodent ulcer, does not admit the cancerous nature of that disease. So we might go on, picking out separate nuggets, but we must leave our Surgical readers to dig for themselves in the copious mine of oncological lore which Mr. Pemberton has laid open to them.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, January 8.

The close of the year 1867, and the commencement of the present year, have been marked, in Paris, by an unusually intense degree of cold. On December 31, the thermometer fell to 17° Fahr., and the temperature remained low till this morning, when it rose again to the freezing point; so that, emerging as we do from a period of severe weather, we positively feel warm. The Seine remains, however, completely frozen. A few days ago, a crowd of people enjoyed the pleasure of skating—or rather sliding—on the surface of the river, till an accident, which cost several persons their lives, induced the police to put a stop to this rather dangerous amusement. The cold appears to have been felt equally over the whole sur-

face of France—even in those privileged spots which are the favourite resorts of invalids during the winter. Snow has fallen repeatedly at Nice and Cannes. At Antibes and Hyères the cold was intense, and the following thermometrical indications, which we have just received from Paris, seem to prove that the cold extended this week, with severe impartiality, from the shores of the Mediterranean to the foot of the Pyrenees.

	Morning.	Evening.	Weather.
December 30	—	2 p.m., 50° Fahr.	Fine
,, 31,	8 a.m., 28° Fahr.	2 p.m., 32 ,,	Fine
January 1,	9 a.m., 21 ,,	2 p.m., 26 ,,	Cloudy
,, 2,	8 a.m., 21 ,,	2 p.m., 23 ,,	Snow
,, 3,	8 a.m., 27 ,,	2 p.m., 27 ,,	Snow
,, 4,	8 a.m., 19 ,,	2 p.m., 32 ,,	Fine
,, 5,	8 a.m., 30 ,,	—	Foggy

It is of course only fair to state that during the same period the cold has been much greater in Paris. The following are the thermometrical indications for the corresponding period, which have been obligingly communicated to us by M. Ducray-Chevallier :—

	6 a.m.	12 a.m.	12 p.m.
December 30 . .	31° Fahr.	38° Fahr.	20° Fahr.
,, 31 . .	17 ,,	24 ,,	18 ,,
January 1 . .	15 ,,	22 ,,	15 ,,
,, 2 . .	14 ,,	20 ,,	15 ,,
,, 3 . .	14 ,,	18 ,,	22 ,,
,, 4 . .	20 ,,	22 ,,	17 ,,
,, 5 . .	19 ,,	24 ,,	28 ,,
,, 6 . .	23 ,,	26 ,,	17 ,,
,, 7 . .	13 ,,	19 ,,	23 ,,
,, 8 . .	26 ,,	29 ,,	—

This evening at 5 p.m. the thermometer stood at 32°.(a)

It is evident that a patient with a delicate chest and a slight hacking cough, who is sent to what Physicians are accustomed to call "a mild climate," is rather disappointed on finding a temperature which early in the morning sinks to 19°, and during the warmest part of the afternoon barely ranges between 23° and 32°. Of course, the winter may be more severe in other parts of the world, but it is only fair to show that in really cold weather the privileged spots in praise of which so much has been written and said are no safeguard against King Frost. In this respect we may, at all events, lay claim to the most absolute impartiality, since, having never practised in the south of France, we have the right to say of its climate, *Mihi nec beneficio, nec injuriâ cognitus.*

The present opportunity has been seized with great tact by the Academy of Medicine to enter a protest against the absurd custom which prevails (under legal sanction) in this country of carrying new-born infants to the *mairie* of their respective birthplaces in order that they may be duly registered. Evidently the formalism of French bureaucrats cannot be realised by any one who has not inhabited the country; but even they might be perhaps induced to assent to the proposition that it is a pity to sacrifice the life of an infant in order to put down its name in due form on an official register. At all events, if the Administration thinks proper to stick to its old practices, the Minister of the Interior will probably be of a different opinion.

The excessive cold has not, as a rule, produced the effects which might, in a Medical point of view, have been expected. We meet at present with few cases of rheumatism or pulmonary inflammation in the Hospitals or in town practice, the prevailing diseases being small-pox and measles. On the other hand, many cases of rapidly developed consumption have started up under the influence of the weather, and all patients with deteriorated lungs have had to pass through a most severe trial.

Yesterday, while the atmosphere was dark with snow, an interesting experiment attracted a crowd of spectators on the *Place de l'Hôtel de Ville.* A new system of gaslights was being tried, four *réverbères* being supplied with the new material. The white light afforded by these was so brilliant that it was easy to read a newspaper on the other side of the Seine. The system consists in mixing carburetted hydrogen with a considerable quantity of pure oxygen gas, and placing, in the centre of the flame, a small cylinder of magnesium. The light produced in this manner is said to be sixty times as powerful as that of ordinary gas. It may be questioned whether, on account of its excessive intensity, it may not prove injurious to the sight. The evil effects of electric light are well known, and possibly the new system, when universally adopted, may open a new field to Medical interference.

(a) The degrees mentioned in the above statement have been converted from Centigrade into Fahrenheit, fractions of course being neglected.

GENERAL CORRESPONDENCE.

DISINFECTION AS A MEANS OF PREVENTING THE SPREAD OF SELF-PROPAGATING DISEASES.

Letter from Dr. William Budd.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have for many years both practised, and everywhere urged, the disinfection of the person and of all exuviæ from it, not only in the case of small-pox, as proposed in your last impression by Sir J. Y. Simpson, but in that of the whole group of self-propagating diseases.

It has always seemed to me that, whatever our other safeguards may be, our first duty is to destroy the seeds, from which alone in these diseases future crops can spring.

I possess abundant proof to show that the contagion of scarlet fever, that of hooping-cough, of diphtheria, and of many others of the same family, may be in a great degree, if not wholly, disarmed by acting on this principle.

There is even reason to believe that the contagious action of typhus may be greatly limited in the same way.

By lending the weight of his influential name to the cause, Sir J. Y. Simpson will, no doubt, give a great impulse to the employment of this class of preventive measures.

He illustrates their action by the example of small-pox.

But there is another case that calls in a still more urgent way for their application. I speak of that of typhoid fever. Sir James shows that, in spite of vaccination, small-pox still carries off, on an average, some 5000 persons annually in Great Britain; and, in his own forcible way, he brings before us many vivid pictures, by whose light we may see what a fearful sacrifice of human life these figures imply.

But typhoid fever destroys annually, in England alone—leaving out Ireland and Scotland—not five, but from fifteen to eighteen or twenty thousand lives.

Now, a very wide experience shows that the spread of this self-propagating fever on any large scale may be prevented, with absolute certainty, by simply disinfecting the intestinal discharges and any articles that may become tainted with them.

The unvarying success of this method in my own hands, for the last twelve or fifteen years, not only in single cases, but in many striking emergencies, eminently calculated by their magnitude and other circumstances to test its powers, have left no doubt on my mind that if it were universally and thoroughly carried out, this fever, instead of devouring its annual hecatomb, would soon become a pathological curiosity, and end in disappearing from our nosology. The method itself I proposed to the Profession some ten years ago or more.

In this neighbourhood, where I have some little influence in these matters, and by many personal friends elsewhere, it is extensively employed, and always with the same unvarying success; but the revelations of the past year painfully show that over the kingdom at large it is but little resorted to. It is high time that national action should be taken upon it.

Clifton, Bristol. I am, &c. William Budd.

THE CLERKENWELL EXPLOSION.

Letter from Dr. Joseph H. Hill.

[To the Editor of the Medical Times and Gazette.]

Sir,—In answer to your correspondent, "J. B. W.," of Tunbridge Wells, who wishes for an explanation of the fact that the sufferers from the late explosion at Clerkenwell were almost invariably injured in the upper part of the body only, and principally about the head and neck, I beg to state that so far as my experience goes, judging from the cases treated at this Hospital, the only explanation which can be given is, that in the first place these were the parts with which falling debris would naturally come first in contact, and secondly these parts were in almost all cases unprotected by clothing, while the missiles causing by far the greater number of the injuries were pieces of glass (of which a considerable number were extracted from the wounds), and other substances of such a nature that they did not penetrate through the clothes to the parts beneath, which thus escaped. As an example of this I

may mention the case of the little girl Martha Thompson, who died from the injuries she received. Besides the wounds on her head, face, and arms, her neck and the upper part of her chest in front were almost covered with wounds, which, however, came to an abrupt termination on reaching the point where her clothes had protected the parts beneath. A well-marked limiting line of wounds was thus formed, extending across the chest, and corresponding to the upper margin of her frock, etc.; below this the skin was uninjured. There were many other similar, though not such well-marked cases.

I am, &c. JOSEPH H. HILL, L.R.C.P.E.,
Royal Free Hospital, January 1. House-Surgeon.

IS PHTHISIS A SYPHILITIC DISEASE?

[To the Editor of the Medical Times and Gazette.]

SIR,—Living much out of the world, and not subscribing to the *Medical Times and Gazette*—to my shame, it must be said—it was only by accident that I saw Dr. F. Jordan's letter in your last number on the origin of phthisis. The relations by which he seeks to trace the parentage of this disease back to syphilis, are very interesting, and very ably brought out, but scarcely, I think, warrant the all-important conclusion he draws from them. I write to suggest one difficulty in the way of this conclusion (and it is only one among many), which appears to me to be absolutely fatal to it. Monkeys, it is well known, are not only, like man, subject to phthisis, but, as Reynand long ago showed, they exhibit the disease in a much more virulent form than men generally do. I have myself known nearly the whole of a large collection swept off by phthisis in the course of a few months. Among the victims, a large proportion were fresh from their native woods. Phthisis is, in fact, in Europe at least, their one great scourge. On the other hand, there has never been a suspicion, I believe, that these animals, although very immoral, ever have the venereal; unless, indeed, they have a syphilis of their own, it is not even conceivable that they should ever contract it. But if this be so—if creatures that are more subject to phthisis than any others are entirely exempt from syphilis—how can this last disease be in any way, whether directly or indirectly, the parent of the first? I am, &c. NEMO.

January 7.

THE FIELD FOR PRACTICE IN THE SPANISH WEST INDIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I will now presume that some young Medical friend, possessed of a tolerable knowledge of the Spanish language and of a little more cash than may be absolutely necessary for the expense of his voyage, has decided upon exchanging the gloomy and solid pleasures of old England for the sunny skies and more trivial enjoyments of the Spanish West Indies. He may start for his destination either *viâ* St. Thomas or direct to Havannah. Should he arrive late at the former port, and be compelled to remain on board during the night, should he be ever so little delicately strung, he cannot easily forget the faintness and sense of oppression which will steal over his senses, occasioned not alone by the sultry heat, but also by the foul smells emanating from a polluted harbour, the bed of which is clothed with a fœtid lead-coloured mud, peculiar to that notorious nest-bed of fever and of death.

On shore he will meet with a few excellent and deserving persons, but mostly a population with a dense stratum of German Jews, all eager to profit by his inexperience, and to prey upon him as they do upon each other, in imitation of the sharks which so abound in the harbour.

The death and destruction lately entailed upon that unhappy island by hurricanes and earthquakes have not tended to improve its sanitary condition. I cannot congratulate the Americans on their bargain. In spite of their go-ahead propensities, they will find it no easy task to contend against the elements; indeed, lately the Americans would appear to have lost in that harbour, by disease, three of their principal officers, amongst them an admiral. It is a subject for regret that after the many calamities that have befallen the Royal Mail Steam Company in that port, they should hesitate to remove to a better one, and thereby lessen the risks of the voyage, and give increased confidence to their own servants and to the public at large. A British company ought to confer upon a British port all the advantages to be derived from its patronage, and not to encourage, in return for a few minor advantages, a port belonging to a foreign power, a focus of pestilence and disease.

Well, Mr. Editor, should our enterprising friend desire to visit Porto Rico, he may do so at once; but should he decide upon Havannah—which I would advise—he must go by another route. During the voyage it is more than probable that some of his fellow-passengers may suspect the existence or be aware of his Æsculapian presence, and it may become whispered about that a "*Medico Ingles*" is actually on board. The dons are sure to extol his good luck in having presented himself in the nick of time, and the donnas with the most fascinating grace will assure him how happy they feel in reclining beneath the shade of his skilful and scientific ægis, and invitations will probably fall in, more especially should our friend be a good-looking fellow. He will, of course, fancy himself in the third heaven, pride himself upon his luck, upon his knowledge of that manly and noble Spanish language, for although he might perpetrate twenty blunders in the space of five minutes, the senoritas do help one out with such a grace! As I said before, he must be chary of accepting too many invitations, but turn a deaf ear to these sirens; and if he cannot stop his ears with wax, as Ulysses of old recommended to his crew, and which practice in a hot climate, to say the least, would be rather inconvenient, let him stop his ears with prudence and discretion. I would advise him to cling to some rich, solid, influential old fellow, who might be able to give him some valuable advice, and who is usually to be found on board these intercolonial steamers. To the advice and friendship of one such I have been greatly indebted for whatever success I may have met with in those countries. Conversing once with an eminent Brazilian Surgeon respecting the impolicy of paying too many visits not strictly Professional in Spanish countries, he made the following true observation:—"I seldom get paid by persons who offer me bouquets of flowers or maté to sip."

We shall now suppose our friend arrived, say at Havannah. The beauty of the harbour, the strange variety in everything, language, costume, expression, all will attract and fascinate him. All is novelty and excitement. He will feel his bosom expand with the most kindly and generous feelings even towards the very negroes that surround him with their grinning importunities. He will exclaim within himself what a glorious thing for old England to have contributed to the freedom of the oppressed blacks in other parts of the globe! But, alas! how soon after a short residence among them will he be doomed to discover that this interesting black is lazy and treacherous, who must be kept under by a just but determined hand. Soon after a few days' acquaintance with these tropical scenes, when the influence of climate shall have begun to affect his nervous system, his admiration of everything and of everybody will begin to settle down into a calm, lazy sort of unimpassioned gaze.

Whatever may be the object which a foreigner may desire to obtain in a Spanish country, he must make up his mind to open the strings of his purse. To gain the ear of any "principal," it will be found necessary to fee, I will not say to bribe, all the subordinates. These will not treat with you unless you be introduced by a man in their confidence—in other words, a more consummate rascal than any amongst themselves. I do not mean for a moment to imply or hint that the examiners are capable of a mean act, or that they are for a moment cognisant of the acts of their dependants, but what I wish to impress on the memory of our young friend is, that unless he be generous towards the underlings he will find that great delay and expense are incurred for the want of his diplomas being presented to the proper quarter, and thus his examination and consequent licence to practise in any of those islands may be deferred to the Greek calends. I will conclude by offering a bit of advice founded on pretty long observation. A British subject, in whatever clime he may be, should never forget his nationality—he must ever be an Englishman. If no man be more feared, nay, I will say more hated, abroad, there is none more respected than an Englishman. Let him not imagine that by conforming to the habits of life or of religion he may gain the attachment or respect of the Spaniards; on the contrary, they will see through his motives, will suspect him, and in the end despise him. He must be a walking mystery among them—polite, but not too familiar—and in this way he will be respected and obeyed. In a word, although self-interest may guide all his actions, I would advise our Medical friend never to forget his nationality or the honour of his flag. I am, &c. MEDICUS.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 7, 1868.

J. SIMON, Esq., President, in the Chair.

AT this, the annual meeting of the Society, the SECRETARY read the

REPORT FOR 1866-67.

The Council of the Pathological Society are able again to congratulate the members upon the continuous progress of the Society in numbers and in popularity as evinced by the attendance upon their meetings. The total number of members is now 456, which shows an increase of 65 during the last three years. The number of elections during the year has been 32, against 14 deaths and resignations. The number of annual subscriptions received has been 325. This is believed to be the highest total of members which the Society has yet attained. The proposal mentioned in the last report of the Council, to appoint a committee to report on all specimens submitted to the Society as being instances of cancer, has been expanded and developed into a permanent Committee of reference on all morbid growths. This Committee has now actually commenced work. It is constituted of the following members, viz. :—Dr. Andrew, Dr. Bristowe, Mr. Bruce, Dr. Dickinson, Mr. Hulke, Dr. Moxon, Mr. Sibley, Dr. B. Sanderson. The Council feel confident that the Society will require no further guarantee of the efficiency of the Committee than is furnished by the names of its members. Its function is to examine and report upon such specimens of morbid growths as are submitted to it by the President, and the report will form a distinct chapter in the yearly volume of the *Transactions*. This chapter will furnish, as the Council confidently anticipates, a valuable mine of pathological material, the worth of which will be made fully apparent by the labours of future generations of writers on the great subject to which the work of the Committee applies. The application for rooms at Burlington-house, which was referred to in last year's report, has been unsuccessful, as the Government is not in possession of any unoccupied space in that building, and the Council is therefore unable to hold out to the Society any prospect of relief from the heavy burden which the rent of the present rooms imposes upon its funds. It only remains for the Council to indicate the chief heads of the Society's accounts. The collector's receipts have been £385 7s.—viz., 325 annual subscriptions, £341 5s.; 32 entrance fees, £33 12s.; 2 composition fees, £10 10s. The proceeds of the sale of the *Transactions* have exceeded all previous experience. The sum received this year has been £44 16s. 9d. This fact shows the wisdom of the large expenditure which was sanctioned by the Council on the 17th volume. Seeing the large demand which now exists for the *Transactions*, the Council have authorised the increase of the number of copies to 600. The total receipts are in excess of the year's expenditure by the sum of £65 1s. 1d., which will clear off the debt left due last year to the Treasurer, and leave a balance of £33 7s. 10½d.

Mr. CHARLES MOORE moved the adoption of the report, and remarked on the great good the Committee on Morbid Growths was likely to effect, the more especially as they insisted on a clinical history being handed in along with the specimens.

Mr. CROFT seconded the motion, which was unanimously carried.

Dr. WILKS then moved a vote of thanks to the officers of the Society, to whom so much of its success was due. Some men, he said, wished the Society to take up something more than pure pathology; they complained that practice was too much neglected. He thought the Society had acted wisely: had it done otherwise, the annual volumes would not have been so valuable as they now are. Others, again, said that quite enough pathology was now known. He (Dr. Wilks) did not think so. To take a single illustration, we know almost everything about phthisis except what it really is.

Dr. C. J. B. WILLIAMS seconded the motion. As the first President, he took an interest in the Society almost paternal. Its success ought to be a matter for rejoicing to the whole country, for year by year its goodly volumes were becoming more and more valuable. It was a wise thing, the determination of sticking to facts, as was now shown by the institution of a sister society (the Clinical) to take up those facts which did not come within the special province of the Pathological Society.

The PRESIDENT added his congratulations on the success of the Society. Its popularity spoke well both for itself and for the Profession. Pathology is the essence of practice, and the foundation of all its development. To know the status of the Profession in any country, it was only necessary to ascertain how pathology was esteemed in it. Pathology was the formative matter from which all Medical science was developed. He then paid a special tribute to the retiring Secretary, Mr. Holmes—a tribute which he all the more deserved as being the author of the index to the Society's *Transactions*, which so greatly enhanced their value. He alluded to the death of Dr. Brinton, one of the Vice-Presidents of the Society, and to the good work that gentleman had done in clearing up the pathology of intestinal obstruction. Another tribute of regret he paid to Professor Otto Weber, of Heidelberg, who met his death by sucking diphtheritic membrane into his mouth from a child's windpipe. In this there was more than the foolhardiness some people spoke of. There was also the great Medical attribute of self-forgetfulness. In speaking of the prospects of the Society, he had to some extent been anticipated by Dr. Wilks; but as imperfections were gradually lessening, he might venture to anticipate still greater improvements.

The following is the list of officers elected :—

President: J. Simon, Esq., F.R.S. *Vice-Presidents:* J. S. Bristowe, M.D.; J. W. Ogle, M.D.; T. B. Peacock, M.D.; F. Sibson, M.D., F.R.S.; W. Adams, Esq.; T. B. Curling, Esq., F.R.S.; Prescott G. Hewett, Esq., F.R.S.; Sir Henry Thompson, Knt. *Treasurer:* R. Quain, M.D. *Council:* J. Andrew, M.D.; W. H. Dickinson, M.D.; Conway Evans, M.D.; Wilson Fox, M.D.; G. T. Gream, M.D.; E. H. Greenhow, M.D.; T. Hillier, M.D.; W. Moxon, M.D.; J. R. Reynolds, M.D.; H. Weber, M.D.; H. Bullock, Esq.; G. W. Callender, Esq.; J. L. Clarke, Esq., F.R.S.; C. De Morgan, Esq., F.R.S.; E. Hart, Esq.; T. Holmes, Esq.; T. Smith, Esq.; J. Tomes, Esq., F.R.S.; J. W. Trotter, Esq.; T. Spencer Wells, Esq. *Honorary Secretaries:* C. Murchison, M.D., F.R.S.; J. W. Hulke, Esq., F.R.S.

(*To be continued*)

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 4, 1867.

Dr. HALL DAVIS, President.

THE following gentlemen were elected Fellows :—Dr. Rayner Batten, Gloucester; Mr. Jessop, Cheltenham; Dr. Junker, Mr. Levy, and Mr. Robinson, London.

Dr. Wynn Williams and Mr. T. Chambers were requested to act as auditors of the financial statement for the current year.

Dr. D. LLOYD ROBERTS, of Manchester, read a paper

ON A CASE OF CÆSARIAN SECTION.

The patient was a young woman aged twenty-one, a farm servant, who was sent to St. Mary's Hospital, Manchester, on June 2, 1867, being at the time in labour. On examination, the outlet of the pelvis was found much contracted; the arch of the pubes reduced to a mere slit, just wide enough to admit the index-finger; and the distance between the tuberosities of the ischia was less than an inch and a half. Under these circumstances it was decided to perform the Cæsarian section. This was done on June 3. The child was extracted alive. The mother died on the sixth day. At the post-mortem examination the external wound was found to be nearly united. There were evidences of diffused peritonitis. The edges of the uterine wound were everted and flabby. The lower portion of the cervix was soft and dark-coloured; and the os was patulous, and nearly black, as if gangrenous. The author remarked that the diminution of the pelvis was not caused by rickets or mollities ossium. There was complete anchylosis between the sacrum and ilium on the left side, and as nearly as possible on the right. The sacrum was smaller than natural. The diminution of the pelvis was in its transverse diameters, and the outlet was much more contracted than the brim. The exact duration of her labour was obscure; but while the tonic contractions of the uterus were strong and continuous to the end, the alternate or labour pains were as nearly as possible suspended, showing exhaustion of uterine energy. In the course of the operation the ether spray had been used; but the author

stated that he should not again douche the uterus with it, for he thought it had the effect of hardening the uterine tissue and interfering with the effusion of plastic lymph. The exact dimensions of the pelvis were given, and the case was further illustrated by diagrams and a dry preparation of the pelvis itself.

Dr. Graily Hewitt had had an opportunity of seeing the pelvis previous to the meeting. It was a most interesting instance of the pelvis technically known as "Robert's pelvis," and only two or three such, he believed, had been described. The peculiarity in the shape arose from the occurrence of anchylosis of the sacrum on both sides to the adjacent bones, differing from Naegele's oblique ovate pelvis in the fact that in Robert's pelvis the anchylosis was on both sides, in Naegele's on one side only.

Dr. Greenhalgh remarked that he had never seen a pelvis similarly distorted. He was disposed to attribute the deformity to arrest of development of the sacrum, to which the ossa innominata were firmly anchylosed, and in depth it resembled the male pelvis. In Naegele's museum Dr. Greenhalgh had seen somewhat similar specimens, but confined to one side, constituting the oblique pelvis of that author.

Dr. Greenhalgh exhibited the uterus of a patient upon whom he had performed the

CÆSARIAN SECTION

eighteen months ago, on account of epithelioma of the cervix. For more than six months after the operation, the disease, which was advancing rapidly, underwent considerable improvement, the hæmorrhage and pain ceasing, and the local affection dwindling to an almost inappreciable degree. The disease then again began steadily to advance, and ultimately destroyed her. It was interesting to observe that the body and fundus of the uterus with appendages were healthy, the neck being occupied by a large disintegrating epitheliomatous growth. The incision in the uterus, originally about six inches in length, now reduced to one inch, was perfectly healed; the serous covering, however, appeared not to have been reproduced.

Dr. Barnes exhibited the

UTERUS OF A PATIENT WHO HAD DIED FROM PUERPERAL FEVER.

The patient was twenty-three years of age. She was delivered after natural labour, child living, on November 16. She was seized with severe pain in the abdomen, shivering, and fever on the 18th; and on the 23rd she died. There was nothing to favour the conjecture that she had contracted any disease of an epidemic character. The case appeared to be one of simple autogenetic origin. On examination, the pelvis, peritoneum, and the peritoneal surfaces of the intestines in relation with the pelvic organs were found to be covered with soft fibrin, breaking down into pus. The cavity of the uterus was empty; the placental seat, near the fundus, still prominent; the walls were thick and fairly contracted. There was no appearance of pus or putrilage in the uterine sinuses. The sinuses even in the neighbourhood of the placental seat were clean and healthy. The veins on either side of the neck of the uterus in the broad ligaments also seemed healthy. In one of these there was a feebly contracted fresh clot.

Dr. Barnes also showed a

PLACENTA DISPLAYING FIBRINOUS DEPOSITS,

forwarded by Mr. John Marshall, of Dover. The placenta was taken from a patient in good health; and the child, born at the full term of gestation, was alive and well. Dr. Barnes observed that these deposits generally take place towards the end of gestation; and the effused fibrin is commonly found in greatest quantity around the margin of the placenta on the fœtal surface, in the neighbourhood of the circular vein. It does not appear to involve change in the proper structure of the placenta, and the child is generally born alive. It occurs in persons quite free from syphilitic taint.

(*To be continued*)

Contagious Diseases Act, 1866.—On the 6th inst. a meeting was held at Chatham, where this Act has been two years in operation, to consider the advisability of extending it to the civil population of large towns. The meeting was attended by most of the beneficed clergy and gentry of Chatham, Rochester, and Strood, and by Medical officers of the Army and Navy. The rector of Chatham, the Rev. A. R. Webster, M.A., filled the chair. After a discussion in which much benefit was clearly shown to accrue from the Act, and that it does not deteriorate public morality, a resolution was passed in favour of its further extension to all large towns in the United Kingdom.

OBITUARY.

THOMAS PRIDGIN TEALE, M.D., F.R.C.S., F.R.S.

It is with deep regret that we record the death of Mr. Pridgin Teale, of Leeds, one of the most eminent of the many able and distinguished provincial Surgeons of England. Leeds has, like Norwich, long been celebrated for its great Surgeons, and Mr. Teale not only well maintained, but heightened and widened the fame of the home of the Heys.

Educated chiefly at the then united School of Guy's and St. Thomas's Hospitals, Mr. Pridgin Teale became a Member of the Royal College of Surgeons in 1823, and immediately after joined his father Mr. Thomas Teale, then a very successful Practitioner in Leeds. In the next year he was elected Surgeon to the Leeds Public Dispensary, and continued to hold the office till 1833, when he was appointed Surgeon to the Leeds General Infirmary. To this institution he continued to give his services for thirty-one years, only resigning the office for that of Honorary Surgeon in 1864. He had very early in his career given evidence of skill, judgment, and boldness by the successful performance of a difficult and dangerous operation; and when, by his appointment to the General Infirmary, he obtained a good field for his talents and acquirements, he rapidly became known as an able and successful Surgeon. He had in early life lost an eye by an injury received while performing a chemical experiment, and this being reduced to monocular vision prevented his attempting the nice operations of ophthalmic Surgery, but did not interfere with his success as an operative Surgeon in general. In lithotomy and lithotrity, in operations for hernia, for the removal of tumours of the jaw, and in "plastic" operations, he won great reputation as a skilful and successful operator; and the fame of the Leeds Infirmary as a school of Surgery, which had grown up in the first Hey's time, increased, spread, and became firmly established during Mr. Teale's period of office. He was thoroughly a scientific Surgeon, resting his practice on sound physiological principles, active in inquiry and research, and ever fully up to, and testing, the new plans of treatment invented in the best schools of Surgery in Europe and America. It is no wonder, therefore, that, as time rolled on, he obtained great and wide-spread reputation, and that his practice as a consulting Surgeon became very large, perhaps larger than that of any other Surgeon in the North of England. He was one of the founders of the Leeds School of Medicine, where he lectured for upwards of twenty-five years, chiefly on anatomy and physiology, and contributed a large number of specimens to its museum. He felt a warm interest in this institution; and his energetic labours on its behalf, with his subsequent reputation, contributed greatly to the success which it has attained, and to the high repute in which it has long been held by the examining boards. By the students of the Medical School he was held in great respect, both as a lecturer and as a Surgeon; and his visits to the Infirmary, which used to take place at 8 o'clock in the morning, were largely attended by them; while he, on his part, was desirous so far as possible to make personal acquaintance with the students, and was always most willing to impart to them the fruits of his large experience. He was naturally kind-hearted, and was very thoughtful and considerate towards the poor under his care. He sympathised quickly and deeply with sorrow and distress, and mingled gentleness with firmness and decision, and he was ever governed by a high sense of duty and a strict conscientiousness. Above all, a deep religious sentiment gave the crowning excellence to his character as a Medical adviser and a man. An all-disposing Providence was ever acknowledged by him in his Professional life, and in all his ways he cherished the spirit of the sincere and humble Christian. He was a warmly attached member of the Established Church. In domestic life he was affectionate and exemplary, and he filled his position in society with unvarying moderation. He was called to the magisterial bench, but his Professional duties left him little time for the duties of the magistracy.

In 1848 he was called upon to deliver the address in Surgery before the Sheffield meeting of the Provincial Medical Association, and on the passing of the Medical Act, in 1855, he was

called to a seat in the "Medical Council," as one of six nominees of the Crown for the United Kingdom. The honour thus put upon him may be considered as a mark of the estimation in which he was held by Sir B. Brodie and those heads of the Medical Profession who were consulted by the Secretary of State on that occasion. For the following list of his writings, as well as for other details in this notice, we are indebted to an able memoir of him in the *Leeds Mercury*, and to a "biographical notice" in the "Photographs of Eminent Medical Men:"—In 1829 he published "A Treatise on Neuralgic Diseases." About the year 1841, he contributed an article on "Intestinal Fistula" to the "Cyclopædia of Practical Surgery," then in course of publication; and about the same time he was requested to prepare for that work the article "Hernia," which, had Sir Astley Cooper lived, would have been contributed by that great authority. Circumstances occurring to prevent the completion of the Cyclopædia, Mr. Teale published his article in an enlarged form in the year 1846, as "A Practical Treatise on Abdominal Hernia." This book, dedicated to his fellow-Surgeons at the Infirmary, was well received by the Profession, and soon established its place as a standard work on this subject; and it was recommended a few years afterwards as a text-book for the army-Surgeons, by the Director-General of the Army Medical Department. In 1858 Mr. Teale published a volume "On Amputation by a Long and a Short Rectangular Flap," in which he proposed a new mode of operating, chiefly with the view of procuring a more useful stump, and of increasing the safety of the operation. "Teale's operation" has since found many advocates, and has been largely practised. His other publications consist of the "Retrospective Address in Surgery" above mentioned, which occupies about eighty pages of the *Transactions* of the Provincial Medical Association; and various papers scattered through the Medical journals, including several on "Plastic Operations," which were reprinted in a collected form in the year 1857.

Mr. Teale was also one of the earliest, most active, and able supporters of the Leeds Philosophical and Literary Society, and was twice vice-president and president of it, and for a long time took an active share in its management. He was elected Honorary Curator in Zoology in 1838, and retained that office until his death. He contributed largely and liberally to the museum, his gifts to it being recorded in successive reports from the very first. They consisted chiefly of specimens in almost every department of natural history, recent and fossil, and of preparations illustrating many important points in comparative anatomy. On November 7, 1823, he read his first paper before the Society, "On the Source and Evolution of Heat in Animals," followed, in 1825, by one "On the Physiology of Plants," and in 1828-9 by a course of lectures "On the Comparative Anatomy of the Cerebral and Nervous Systems. In 1834 and 1835 he read two important and elaborate papers "On the Natural History of the Genus Actinia;" and "On Alcyonella Stagnorum, a freshwater Zoophyte inhabiting ponds near Leeds." These papers, for the preparation of which he made observations and dissections which cost him much time and care, are printed in the only published volume of the Society's *Transactions*. His last contribution to zoological subjects was in 1839, when he read a paper "On the Cephalopoda;" but in 1852 and 1853 he contributed two valuable geological memoirs, one "On the Fossil Fishes of the Yorkshire Coalfield," and the other "On the Aire Valley and its Organic Remains."

In 1862 Mr. Teale was elected a Fellow of the Royal Society. His incessant—too incessant—exertions at last wore out his constitution, and for the last year and a half his strength had seemed to be declining, and when at last attacked by a painful malady, he had not vital force enough to fight it out. He was confined to bed for some weeks, and at length sank, to the great regret of all who knew him.

The last Professional honour which Mr. Teale received was the degree of Doctor of Medicine, *honoris causâ*, conferred on him by the University of Dublin, at the meeting of the British Medical Association in August last; and we cannot better close this notice than by quoting the words in which Dr. Stokes—to be praised by whom is indeed enviable fame—presented Mr. Teale to the University:—"He had next to present Mr. Teale, whose writings had obtained for him a world-wide reputation in the healing art. Mr. Teale might safely be styled one of the most leading Surgeons in England, and he might add to that, one of the leading Surgeons in the world."

WILLIAM EMANUEL PAGE, M.A., M.D., etc.

We have again to lament the loss of one, if not of the most active and popular, yet of the most deservedly respected members of our Profession. Dr. Page was the second son of the Rev. W. Page, D.D., sometime Head Master of Westminster School, and was born in 1808. He naturally received his education at Westminster, and thence proceeded to Oxford in 1826 as a student of Christchurch. He took the degrees of B.A. in 1830; M.A., 1833; M.B., 1834; and M.D., 1837. His Professional studies were carried on at St. George's Hospital, to which he was elected Assistant-Physician in 1841, and Physician in 1845. This appointment he resigned shortly before his decease, and lived not long enough to be gratified by the compliment which the Hospital Board intended to pay him in electing him Consulting Physician. In 1867 he was elected Treasurer to the Royal College of Physicians. In 1856 he married Julia Katherine, daughter of the late Robert Keate, Sergeant-Surgeon to the Queen, by whom he leaves five young children; and died at his residence, 106, Gloucester-place, on January 2, 1868, of disease of the heart.

Dr. Page belonged to a class of Physicians which formed, as it were, a link between the old school and the new. The characteristics of the former were, a high mental culture, a familiar acquaintance with the literature and philosophy of the classical ages, and that general view of disease which is acquired by a cultivated observation, without the more precise aids to diagnosis which the modern numerical method inculcates. No school has ever produced better or safer Practitioners, and their skill in prognostics was equal to their dexterity in therapeutics. They looked at disease with their faculties sharpened by the highest intellectual culture, and by the study of human nature as depicted by the as yet unrivalled artists of antiquity. Classical learning is now on the shelf, but the greatest revolutionaries in education and the most unflinching advocates for the exactest scientific methods (amongst the latter of whom we reckon ourselves) must admit that the classical school produced some of the ablest Practitioners the world ever saw, and may claim that classics may be still, as of old, made the precursors of science in education. Dr. Page had the character of a careful, humane, and conscientious Practitioner; and if he left few public records of his skill, if we find no great discoveries or daring innovations in pathology or practice connected with his name, the reason is doubtless the languor of bad health which was but too visibly stamped upon all his features and movements. But there was no one to whom the pupil could look with greater confidence for guidance on all points of Professional honour and conduct, or for an example of gentlemanly tastes and blameless life.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—B.S. EXAMINATION.—The following are lists of Candidates who passed the respective Examinations indicated:—

Pass Examination.

Beck, Marcus, University College.
Berridge, Edward William, St. Bartholomew's Hospital.
Dove, John Reuben Bathurst, London Hospital.
Howse, Henry Greenway, Guy's Hospital.

Examination for Honours.—First Class.

Beck, Marcus (gold medal), University College.
*Dove, John Reuben Bathurst, London Hospital.
Howse, Henry Greenway (scholarship and gold medal), Guy's Hospital.

* Obtained marks qualifying for scholarship and gold medal.

ROYAL COLLEGE OF SURGEONS.—EXAMINATIONS IN ARTS.—The following are the names of the successful candidates at the recent Preliminary Examinations for the Fellowship and Membership. For the former qualification there were 27 candidates, of which number 21 passed, viz.:—Messrs.

Amsden, G.
Bullock, J. L.
Champneys, C. F.
Crosse, J.
Craig, A. M.
Duke, J.
Farrant, S.
Furnivall, M.
Harbutt, W.
Kemp, J. R.
Lewtas, J.
Madden, E. M.
McKellar, A. O.
Parker, A. E.
Pearse, G. E. L.
Pollock, E.
Pritchard, U.
Rigg, C. F.
Robinson, H. S.
Spicer, R. W.
Younger, E. J.

For Membership, there were 155 candidates; 74 failed to acquit themselves to the satisfaction of the Examiners, and

were consequently referred to their studies. The following passed :—Messrs.

Barrett, G.	Lovett, H. A.
Beardsley, A. A.	Lupton, H.
Bethell, A.	Lush, W. J. H.
Bishop, G. H.	Lyster, F. L.
Blackburn, A.	Mackintosh, R. C.
Bryan, C. F.	Macord, H. W.
Burgess, E. A.	Macord, R. J.
Carter, A.	May, E. P.
Carter, R. W. F.	McCullum, C.
Cartwright, H. G.	Mears, R.
Cheesewright, J. F.	Molyneux, H. J.
Chicken, R. C.	Mounster, T. W.
Clyma, H. H.	Moxon, H. M.
Cobban, A. R.	Nelson, F. G. P.
Corbin, E. K.	Newnham, L. J.
Corrie, A. F.	Odling, T. F.
Crouch, E. J.	Patterson, D. A.
De Lisle, F. J.	Phillott, W. J. C.
Dunstan, R.	Powell, J.
Eberle, J. J.	Price, H. P. J.
Eddowes, A.	Prichard, L. L.
Elliott, F. H.	Prichard, R. M.
Farrar, J.	Ramsden, A.
Godding, C. C.	Roberts, H. W.
Graham, G. W.	Roberts, R.
Greaves, F.	Robinson, J. H.
Gunness, A. D. E.	Rogers, H. C. E.
Harris, G.	Ryott, M. B.
Haslam, T. H.	Sealy, G. J.
Hawthorn, W. T.	Skipworth, H.
Hepburn, D.	Sobey, A. L.
Hewett, F. C.	Smith, R. D.
Holmested, P. W.	Snell, S.
James, A. C.	Stone, C. H. A.
Jeakes, T. J.	Stowell, W. H.
Knott, C.	Sylvester, S. A.
Law, R. M.	Tribe, J. B.
Lawrence, A. E. A.	Wade, T. S. O.
Lawson, A.	Wheeler, F. J.
Lee, J. S.	Wilkins, E. W. S.
Lewis, M. B.	Wood, W. J. H.
Lingard, A.	Wright, A.

It is stated that the ages of the candidates varied from 15 to 31 years. These gentlemen, if so disposed, can at once enter on their Hospital studies, and thus save half a session.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, January 2, 1868 :—

Thomas Sansome, Hill-top, West Bromwich.

The following gentleman also on the same day passed his First Examination :—

James Bartlett, Charing-cross Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BOWDEN, WILLIAM, has been elected Surgeon to St. John's Hospital for Diseases of the Skin.

JAMES, PROSSER, M.D., has been elected Physician to St. John's Hospital for Diseases of the Skin.

ROBERTS, E. S., M.R.C.S., L.S.A., has been appointed Medical Inspector of Seamen for the port of Hull.

SAWYER, JAMES, M.B. Lond., has been appointed Resident Physician to the Queen's Hospital, Birmingham.

BIRTHS.

BEITH.—On December 31, at the Royal Naval Hospital, Plymouth, the wife of Dr. Beith, Deputy-Inspector-General, of a daughter.

BURTON.—On January 2, at 101, Burrage-road, Plumstead, the wife of R. G. Burton, M.D., of a son.

DAVIS.—On December 23, at Redhill, the wife of E. M. Davis, M.R.C.S.E., of a daughter.

FELCE.—On January 5, at Launceston, Cornwall, the wife of Stamford Felce, L.R.C.P. Lond., of a daughter.

LAWRENSON.—On December 31, at 41, Grosvenor-square, Rathmines, Dublin, the wife of R. C. P. Lawrenson, Surgeon R.N., H.M.'s ship *Royal Alfred*, of a son.

ORTON.—On December 29, the wife of Charles Orton, Newcastle-under-Lyme, of a daughter.

ROBERTS.—On January 1, at St. John-street, Chester, the wife of Dr. John Roberts, of a son.

SADLER.—On January 1, at Northumberland House, Stoke Newington, the wife of J. Saddlow, M.D., of a daughter.

WARREN.—On January 1, at 27, Montague-street, Russell-square, the wife of S. Warren, F.R.C.S.E., of a daughter.

WILSON.—On December 27, at Clay-cross, Derbyshire, the wife of W. J. Wilson, M.R.C.S., of a son.

MARRIAGES.

AGAR—DENNIS.—On January 2, at Drumcree Church, county Westmeath, F. Agar, L.R.C.P. Lond., of Ponder's-end, Middlesex, to Sophia Elizabeth, third daughter of the Rev. G. M. Dennis, rector of the parish.

COOK—COTTON.—On January 7, at St. George's, Hanover-square, by the Rev. Ernest Hawkins, Canon of Westminster, assisted by the Rev. W. Payne, incumbent of St. John's, Reading, Frederick Lucas, eldest son of Francis Cook, Esq., of Doughty House, Richmond, and Montserrat, Cintra, to Bessie, eldest daughter of Dr. Cotton, of Clarges-street, Piccadilly. No cards.

JAMES—HARRIES.—On January 2, at Llandissilio, Pembrokeshire, R. James, M.R.C.S.E., of 67, Clarendon-road, Notting-hill, to Annie, youngest daughter of the late Rev. T. Harries, vicar of Llandissilio and perpetual curate of Egremont.

DEATHS.

BUTCHER, H., L.R.C.P., at Ware, Herts, on January 2, aged 60.

HADLOW, H., M.R.C.S.E., at 4, George-street, E.C., on January 4, aged 63.

HOWELL, E., M.D., at Southhill-place, Swansea, on January 3, aged 74.

PAGE, W. E., M.D., F.R.C.P. (late Physician to St. George's Hospital), at 106, Gloucester-place, Portman-square, on January 2, aged 59.

SALMON, F., M.R.C.S.E., at Woodfield Cedars, Ombersley, Worcestershire, on January 3, aged 72.

TEALE, T. P., M.D., F.R.C.S., F.R.S., at Leeds, on December 31, aged 67.

TERRY, W., M.D., of Bath, at Swinton House, Yorkshire, on December 25, aged 81.

WARD, ANN, the wife of Dr. Martindale Ward, L.R.C.P. Ed., F.R.C.S.E., at Markham-square, Chelsea, S.W., on January 2, aged 53.

VACANCY.

ISLINGTON DISPENSARY.—Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bellingham Union.—Mr. William Sutherland has resigned the Second District; area 16,662; population 2624; salary £15 per annum.

East Ward Union.—Mr. William Dobie has resigned the Kirkbythore District; area 12,900; population 1260; salary £14 per annum.

Market Bosworth Union.—Mr. J. W. Hubbard has resigned the Market Bosworth District; area 18,340; population 4415; salary £62 per annum. Also the Workhouse; salary £25 per annum.

Plomesgate Union.—Mr. Arthur H. Dowson has resigned the Orford District; area 21,302; population 3277; salary £65 per annum.

APPOINTMENTS.

Alderbury Union.—William G. Williams, M.R.C.S.E., L.S.A., to the Fifth District.

Orsett Union.—Charles G. Bott, M.R.C.S.E., L.S.A., to the Aveley District.

FREDERICK SALMON, M.R.C.S.—The death of Mr. Salmon, the well-known specialist, is announced. Mr. Salmon enjoyed, for many years, a large practice in diseases of the rectum, which he owed mainly to his books on stricture of the rectum and prolapsus of the lower intestine. He passed the College of Surgeons in 1818, and the Hall in 1817. He was, for many years, Senior Surgeon to the Royal General Dispensary, and he founded, and was Consulting Surgeon to, St. Mark's Hospital in the City-road.

AT Woodford and Cranford, Northamptonshire, typhoid fever is raging fearfully at this present time. The Rev. Mr. Smythe sent at once to London for nurses, but has only succeeded in procuring one. On Tuesday the epidemic had slightly abated; but at Cranford, about two miles apart, it was on the increase. The new part of Woodford is badly drained, and has been acknowledged to be so ever since the outbreak of 1866; but nothing has been done—*hinc illæ lachrymæ*.

ON Saturday, Mr. Frank Buckland and Mr. Robert Dawbin will be packing a quarter of a million of salmon ova in the ship *Celestial Queen*, now lying in the St. Catherine's Dock, for exportation to New Zealand. Mr. Dawbin accompanies the freight to its destination, and is appointed to superintend the culture of salmon in New Zealand. Government could not have selected a more competent person for the task. The *Celestial Queen* sails on Wednesday next.

THE BIRMINGHAM WATER SUPPLY.—Great complaints are made of the character and price of the water supplied by the Waterworks Company. A report published by Mr. Plant pronounces the water, from the presence of organic impurities, unfit for drinking purposes, and the price is said to have been recently raised by the imposition of a meter-rent. The sanitary reformers of Birmingham should look to this.

MR. FIELDING, son of Dr. George W. Fielding, of Grove-house, Tunbridge Wells, a naval cadet on board the *Britannia*, has received the Royal Humane Society's medal for saving the life of a paymaster from drowning.

CLINICAL SOCIETY.—The following subjects are announced for the first meeting of this Society :—President's Address; resection of shoulder; exophthalmic goitre; ulcers of cornea; rheumatic fever; femoral aneurism; intermittent hæmaturia; renal abscesses; fibrous phthisis.

THE CLERKENWELL MORTUARY.—This useful building, erected in the old burial-ground, for the temporary reception of bodies before burial, has been closed at the instance of the Marquis of Northampton, whose tenants conceive their property to be injured by its vicinity. Mr. P. H. Holland, the Government Inspector, has tried to convince the Clerkenwell Vestry of the expediency of reopening the mortuary, and his sensible arguments seem likely to succeed.

PARIS SOCIÉTÉ DE CHIRURGIE.—The vacancy among the foreign Associate Members of this Society, made vacant by the death of Sir William Lawrence, and which is one of great honour, in consequence of the great care with which the selection is made, has, at the recommendation of the reporter, M. Giraldés, been conferred on Von Graefe, the celebrated Berlin Surgeon. It is pleasant to see that the men of science do not allow themselves to be influenced by the Prussophobia now raging in France.

POOR LAW MEDICAL OFFICERS.—A deputation, consisting of the following gentlemen, members of the Medical Profession, waited on the Earl of Mayo, at Dublin Castle, on Thursday, the 2nd inst., in reference to the question of some provision being made for the superannuation of Poor-law and Dispensary Officers—viz., Dr. Churchill, President of the College of Physicians; Mr. Adams, President of the Royal College of Surgeons; Mr. Porter, Vice-President College of Surgeons; Dr. M'Clintock, Chairman of the Council of the Irish Medical Association; Dr. Quinan, Honorary Secretary; Dr. Beatty, Dr. Benson, Dr. Jameson, Dr. Atthill, Dr. Jacob, Dr. Macnamara, Dr. Morrogh, Dr. Darley, and Dr. Brassington.

THE LORD MAYOR OF DUBLIN.—The Right Hon. William Carroll, M.D., on the day of his inauguration, January 1, entertained the corporation, and a large number of his friends and fellow-citizens, at a sumptuous *déjeuner* served in the fine old "oak-room" of the Mansion-house, Dublin. Among those invited, and, with one or two unavoidable exceptions, present on the occasion, were the President of the College of Physicians. Dr. Churchill; the President of the College of Surgeons, Dr. Robert Adams; the Vice-President of the College of Surgeons, Dr. Porter; the Governor and Deputy-Governor of the Apothecaries' Hall, Drs. Wyse and Nolan; Sir Dominic Corrigan, Bart., Sir William R. Wilde, Drs. Beatty, Butcher, Kidd, Ringland, Sawyer, Owens, Long, John Ryan, Michael Ryan, Tuohill, Quinlan, W. D. Moore, Mapother, Cameron, Shea, O'Neill, Wilson, etc. The Lord Mayor, in a speech marked by the most genial cordiality, expressed his determination to maintain the ancient hospitalities of the Mansion-house during his occupancy, without reference to sect or party, and to discharge the various duties of his high office with diligence and impartiality. In a word, the first Medical mayoralty in the Irish metropolis was most auspiciously initiated, and, we have no doubt, will be carried on in a manner creditable to the Profession to which his Lordship belongs, and commensurate to so favourable a beginning.

MERCURIAL POISONING.—An occurrence at the Walton-le-Dale Workhouse of the Preston Union illustrates the mischief liable to result from familiarising unprofessional persons with the use of strong remedies. The master, anxious to make the boys under his care as clean as possible, in anticipation of their inspection by visitors, a few days before Christmas rubbed into their heads a quantity of "blue ointment." The boys shortly afterwards exhibited symptoms of severe salivation; some forty of them were confined to bed, and placed under Medical treatment, and one unfortunate victim to cleanliness ultimately died. It appears that the whole transaction was unknown to the governors, but that, as soon as they became aware of it, they suspended the master from the discharge of his duties, the only step which they are empowered to take in the matter. It now remains for the Poor-law Board to hold an official inquiry into the master's conduct, and pending such inquiry it seems desirable to defer judgment on two points which the case suggests: 1. How came the Medical officer to allow the "blue ointment" to be accessible to the master for indiscriminate use? and 2. What was stated to have been the "cause of death" in the certificate, if any, given in the case of the boy who died?

HARVEIAN SOCIETY OF LONDON.—The following gentlemen have been elected as officers of the Society for the year 1868:—*President:* Ernest Hart, Esq. *Vice-Presidents:* Frederick Cock, M.D.; W. F. Cleveland, M.D.; E. S. Haviland, M.D.; and H. G. Times, Esq. *Treasurer:* Henry William Fuller, M.D. *Honorary Secretaries:* J. Brendon Curgenven, Esq., and William Hickman, M.B. *Council:* H. F. Bate, M.D.; J. Gayleard, Esq.; R. Greenhalgh, M.D.; J. Holmes Jephson, M.D.; R. S. Jeffs, Esq.; J. Stewart Lamb, M.D.; James R. Lane, Esq.; J. Z. Laurence, Esq.; Newton B. Lee, Esq.; Duncan Menzies, M.R.C.P.; Gueneau de Mussy, M.D.; J. Rushforth, Esq.

AVERAGE COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN THE YEAR 1867.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon	Loss by Ignition (a)	Oxidisable Organic Matter (b)	Hardness.		Organic and other Ammonia
				Before Boiling	After Boiling.	
Thames Water Companies	Grains.	Grains.	Grains.	Degs	Degs.	Grains.
Grand Junction .	20·29	1·07	0·700	13·0	4·2	0·003
West Middlesex .	19·34	1·05	0·747	12·5	4·1	0·003
Southwark & Vauxhall . . .	19·47	0·99	0·816	12·9	4·1	0·003
Chelsea . . .	20·20	1·19	0·794	12·7	4·1	0·003
Lambeth . . .	19·92	1·18	0·817	12·9	4·0	0·003
Other Companies.						
Kent . . .	27·32	0·76	0·184	16·6	7·7	0·002
New River . .	18·45	0·86	0·403	12·5	4·0	0·002
East London .	20·15	1·06	0·624	12·7	4·4	0·003

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

The fluctuations in the amounts of the several constituents have not been considerable, although the proportions have been a little in excess of the average during the early months of the year, when there is much rain. The Kent water is remarkable for its beautiful blue colour when seen in large volume, in consequence of a nearly total absence of organic matter.

THE VACCINATION ACT, 1867.

THE Poor-law Board have just issued a circular letter to Boards of Guardians on the subject of this statute. We give below such portions of the circular as will be of moment to Medical men acting, or about to act, as "public vaccinators." The remarks of the Medical Department of the Privy Council, which form an appendix to the circular, deserve to be read with attention.

The Act comes into operation on the first day of next month (*i.e.*, January 1, 1868).

From and after that day, all previous Acts relating to vaccination are repealed, except in regard to divisions and districts of unions and parishes previously made, all contracts entered into under previous statutes then in force, all acts and proceedings commenced under them, but not completed, and all liabilities and responsibilities incurred under them. All these matters are to remain in full force, notwithstanding the repeal of the Acts.

But the new Act proceeds to provide that the guardians of every union or parish, where the same shall not have been divided into districts for the purpose of vaccination, shall (unless such union or parish respectively shall be of so limited an area as not to require such division, in which case the same shall be treated as a vaccination district) forthwith divide their union or parish into districts for vaccination.

This provision applies to those unions or parishes where at present there has been no division into districts.

The guardians are required to enter into a contract with some duly registered Medical Practitioner for the performance of vaccination of all persons resident within each district (not, as heretofore, within the union).

Such Medical Practitioner is to be termed "the public vaccinator" of the district.

Section 4 provides that no person shall be appointed a public vaccinator, or act as deputy for a public vaccinator, who shall not possess the qualification heretofore prescribed by the Privy Council, or such as shall be from time to time hereafter prescribed by them, except when such lords shall, upon sufficient cause, sanction any departure from their directions.

The regulations now in force relating to the qualification of public vaccinators and their deputies are contained in the order of the Privy Council dated December 1, 1859.

The section proceeds to enact that all such regulations as the said lords have heretofore made, or shall hereafter make, to secure the efficient performance of vaccination, or the provision and supply of vaccine lymph by the public vaccinators, and all such directions or regulations as they may issue in relation to small-pox, shall be duly observed by the several persons to whom they apply.

Section 5 empowers the Privy Council to make extra payments to public vaccinators for efficient vaccination.

It is now provided that every contract shall provide for payment in respect only of the successful vaccinations of persons; and it is enacted that the rate of payment for primary vaccinations shall be not less than according to the following scale:—

For every such vaccination done at an appointed station situated at or

within one mile from the residence of the vaccinator, or in the workhouse, not less than one shilling and sixpence.

At any station over one mile and under two miles distant from his residence, not less than two shillings.

At any station over two miles, not less than three shillings.

These distances are to be measured according to the nearest public carriage road.

In regard to vaccinations performed elsewhere than at stations in the workhouse, the payment shall be according to the terms specified in the contract, as approved of by the Poor-law Board.

The Board understand this change to apply to contracts to be made before this Act comes into operation, and enjoin upon the guardians, and to the Medical Practitioners with whom they are now contracted, forthwith to determine the contract when the fees are below the scale above set forth, and to enter into a new one.

The guardians are by this clause required to provide all the vaccination stations other than the surgery or residence of the public vaccinator.

The Act then provides for re-vaccination, a [illegible] dissatisfaction has often been expressed.

After the 31st instant, the provisions of the existing contracts shall not apply to the cases of persons re-vaccinated. But the guardians shall pay, in respect of every case of successful re-vaccination performed in conformity with the regulations of the Privy Council [illegible] sum amounting to two-thirds of the fee payable for successful primary vaccination.

The Privy Council, as the guardians well remember, have already issued regulations on the subject of re-vaccination.

Section 11 removes a cause of much dissatisfaction in many persons, by prohibiting a public vaccinator from being paid for the vaccination or re-vaccination of any child or other person resident out of his district.

There are, however, three exceptions:—

1. Where there is a vacancy in the office of vaccinator in the adjoining district.

2. Where the vaccinator therein makes default, and the [illegible] the vaccinator of the adjoining district notice thereof in writing.

3. When a relieving officer of his union or parish shall in writing refer any child to him for vaccination.

Section 12 enables the guardians, with the consent of the Poor-law Board, to provide, in [illegible] scattered, or where some peculiar circumstances may render it expedient for them to do so, for the attendance of the public vaccinator at the appointed places after intervals exceeding three months.

A series of sections, from 15 to 23 inclusive, provide for the vaccination of children, by notice from the registrar on the registration of the birth; by compulsory injunction upon the parent or other person having the custody of any child to have the vaccination performed; by requiring inspection, after an interval, of the vaccination performed; by making provisions for cases where the child is temporarily unfit for vaccination, and where it is insusceptible of successful vaccination; by requiring certificates of successful vaccination to be transmitted to the registrar of births in the district where the birth was registered, or otherwise to the registrar of the district in which the operation was performed; and by requiring the transmission of the certificate by the parent, or such other person as above referred to, in cases where the vaccination has been performed by a Medical Practitioner not being the public vaccinator.

The vaccination by the public vaccinator, and the giving of any certificate or duplicate certificate by him, are to be gratuitous, so far as regards the person vaccinated, or his parent or guardian. The public vaccinator is prohibited from being paid by the guardians, under his contract, for any vaccination for which he shall have been paid by any other person, and if he be paid under his contract he shall not recover payment for the vaccination from any other person. Section 22.

The registrar of each district shall, within one week after the 1st day of January and the 1st day of July in every year, make a list of all cases in which certificates of vaccination have not been duly received by him during the last preceding half year, and shall submit the same to the guardians, who shall forthwith make inquiry into the circumstances of the cases contained in the list, and if they find that the provisions of the Act have been neglected shall cause proceedings to be taken against the persons in default.

This default may consist of the neglect of vaccination, or in the neglect to transmit the certificates of vaccination; and the Board recommend the guardians to draw the attention of the vaccinators with whom they have contracted to this and the subsequent penal clause.

To remove all question as to the power of the guardians to act in this matter with effect, the 28th section enables them to pay all reasonable expenses incurred by them in causing notices to be printed and circulated as to the provisions of this Act, and in and about inquiries and reports as to the state of small-pox or vaccination in their union or parish, and in taking measures to prevent the spread of small-pox, and to promote vaccination upon any actual or expected outbreak of that disease therein, and to pay any officer appointed by them to prosecute persons charged with offences against the Act, or otherwise to enforce its provisions.

Sections 29 and 33 prescribe the penalties to be recovered upon summary convictions upon parents and the persons already referred to who neglect to have the children vaccinated, and upon the public vaccinators and parents respectively who neglect to transmit the certificates in due time, and upon persons who wilfully sign false certificates.

The 32nd repeals the prohibition contained in previous Acts upon persons who inoculate with small-pox.

APPENDIX.

Extracts from a Letter from the Medical Department of the Privy Council, addressed to the Poor-law Board, dated [illegible] 1868.

I. It seems in their lordships' opinion important, first of all, to impress very distinctly upon the guardians that now, under Section 24 of the Act, they are bound to ascertain at stated intervals whether the Act has or has not been complied with by the parents, etc., of children whose births have been registered within the time, and, in case of neglect, to take such steps as shall ensure compliance.

For this purpose, as will be seen, lists of persons presumed to be in default are to be delivered half-yearly to the guardians by the registrars of the respective districts in the first week of January and first week of July in each year. The first of these lists will be due in July next; and guardians ought to consider in the meanwhile how the requirements of the Act as to dealing with such lists may best be carried out. It appears to their lordships that in any district it will be difficult, and in any populous district impossible, for guardians to give full effect to the intention of the Legislature, unless they appoint a paid officer or officers to make the requisite inquiries, and to take such further proceedings as the statute requires. The services of such an officer are desirable, moreover, and in fact almost indispensable, for giving proper effect to Section 31; for in most districts there will be found, in larger or smaller numbers, unvaccinated children whose births have escaped registration, unvaccinated children who have come in from other districts, and (for some time to come) unvaccinated children born before this Act comes into operation; and the duties of a vaccination officer will apply to all these cases. He ought to find them out, to give notice to the parent, etc., requiring the vaccination to be done within a certain period, and to take such further course as may be required to give effect to the Section.

My Lords further think that if the Act is to succeed fully according to its intention, every officer appointed as above should be instructed to keep himself constantly informed of the progress of vaccination in his district as compared with the local birth registers. If this were systematically done, and if the practice were adopted of sending a notice of default to every parent as soon as the default arose, few cases would remain to be reported half-yearly to the local authority. It is evident that a registrar of births has, from the nature of that appointment, peculiar facilities for acting as vaccination officer to the guardians. But, of course, in certain cases there may be reasons why this appointment should not be made. And for cases where the vaccination officer of the guardians is not the register of births, it is to be remembered that under Section 24 of the Act the vaccinating officer, as such, has access to the registrar's vaccination book.

The instructions of the vaccination officer should have special reference to any proceedings that may be necessary for carrying into effect Clause 17.

II. Next, as regards the local arrangements for vaccination:—

(a.) By Sections 37 and 38 the guardians of any union may be required to revise the present divisions of their respective unions, and to consolidate or otherwise alter existing districts. The class of unions that will be chiefly affected by these sections are urban unions, at present so subdivided as injuriously to affect the performance of public vaccination; and my Lords presume that such arrangements will have now to be brought into conformity with the principles laid down in the memorandum issued by the Council Office "on subdivision of vaccination:"—

(1.) That, except at times when there is immediate danger of small-pox, vaccination be not appointed to be performed at any station oftener than once a week.

(2.) That, except at times when there is immediate danger of small pox, or for special reasons in individual cases, vaccination in town districts (unless it be of private patients) be performed only at the public station.

(3.) That, as opportunity offers, especially in urban unions and parishes, all unnecessary subdivision of public vaccination among many districts or stations be discontinued; and that in populous towns, unless under special circumstances, subdivision be not made beyond the point where each vaccinating station will have annually at least 500 applicants for vaccination.

(b.) The intention of the Act (Sections 3 and 11) is to have for each vaccinating district one responsible public vaccinator. This arrangement is at present the usual one; and in cases where it does not yet prevail, the guardians ought at once to consider the expediency of determining the present contracts, and of making new contracts to the effect intended by the present law.

(c.) The duties which devolve upon public vaccinators under the contracts will no doubt be defined by the contracts; but here again, with particular reference to the attendances specified in the schedules, my Lords hope that the guardians will not be permitted to overlook the rules essential for the proper performance of vaccination.

(1.) Vaccination should not be appointed to be performed at any station oftener than once a week.

(2.) Where, as in rural and wide-spread districts, provision has to be made for attendance at more than one station in a district, it is only at the principal station that a weekly attendance should be given, and the attendances at the other or subsidiary stations should be for a certain number of consecutive weeks at two or three stated seasons of the year; and (3), where the population of the district is so sparse that there is not a resident public vaccinator, the Poor-law Board will, my Lords presume, sanction an arrangement (under Clause 12) for attendance at fixed periods of the year only. An essential condition of success of a vaccination station is that the attendances shall be in fair proportion to the number of children likely to be brought annually to the station for vaccination.

In addition to the reasons advanced, there is another why the schedules should be revised. The new law is very stringent in requiring the attendance of parents; and it is of the utmost importance that the attendances of the vaccinators, in conformity with the announcements made to parents, should be punctually given. To effect this, my Lords are of opinion that the attendances to be fixed in contracts should be such as vaccinators can reasonably be expected to adhere to.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. [illegible], Clerk to Local Board, Croydon.—Your letter was received on going to press. That statement proceeded from a source usually correct, but it shall be inquired into, and publicity given to the result.

Mr. [illegible].—We can only repeat to our correspondent what we have already frequently stated—That we can have no wish to prevent women making the experiment of practising Medicine if they be so minded; but, in the name of common decency, let them obtain their Medical education apart from the male sex, and have an examining board and a diploma of their own.

M B.—You had better apply to the respective secretaries. We do not know of any published source from which the information may be obtained.

A. K. C.—Sir William Fergusson is a magistrate for Peeblesshire. His Highland retreat is Spittlehaugh, West Linton, in that county.

Archæologist, Tenbridge.—The first French newspaper was the *Gazette de France*, established in 1622 by a Physician, the celebrated Theophrastus Renaudot, under the patronage of Louis XIV.

M.R.C.S.—The subject is under discussion by the authorities; our contemporary is rather premature in the statement.

G. J. F., Lincoln's-inn.—The French proverb has it—"*Pour se guérir cochon entre Pâque, mort en vue.*" You cannot do better than follow the advice of your Medical man.

A Country Practitioner.—Chloroform has been tried several times in cases of hydrophobia. The appointments under the recent Act are vested in the Board of Trade; a gentleman has already been appointed for Falmouth.

Mons. Louis.—The paper and tables on the Etiology of Phthisis, by Dr. Edward Smith, will be found in vols. xxiv. and xxv. of the *Medical Times and Gazette.*

A Pupil.—As you have passed the recent preliminary examination, you can enter on your Professional studies at once, and thus save half a session. Another Pupil and H. M. will find the list of successful candidates in another page of this journal.

M.D., Portsmouth.—You will find lectures by Dr. Bence Jones on Bright's Disease in this journal for the year 1852. Dr. Costello died recently; he formerly resided at Wyke House, Isleworth.

L. S. A., Bow.—You have not stated which examination; there will be a primary this day, and a pass on the following Saturday.

A. Boswell.—You could not as M.B. only; as M.D. you would be admitted on production of the diploma and certificates mentioned. Write to the Secretary, who will forward you the regulations on the subject.

A Special Constable.—The question was brought under the consideration of the Court of King's Bench, in consequence of the officer of Lord Pawlett having distrained the silver tankard of Sir Hans Sloane, then President of the College of Physicians. The case was never determined, but the opinion expressed by the judges was that Physicians were liable to contribute in money, although they might probably be exempted from personal service. The Æsculapidæ were by no means emulous of the military renown of Machaon and Podalirius.—See "Modern Rep." ii.—10.

LIST OF ADDITIONAL SUBSCRIPTIONS TO THE STATHAM DEFENCE FUND.

	£	s.	d.
Ash, Claudius and Sons	2	2	0
Atkinson, J. H. Esq., Leeds	1	1	0
Baker, J. A. Esq., Dublin	2	2	0
Barrett, H. J., Esq.	2	2	0
Bate, C Spence, Esq, F.R.S.	1	0	0
Bowen, Dr., Essex	1	1	0
Bowman, W. Esq., F.R.S.	3	3	0
Brock, John, Esq.	0	10	6
Brookhouse, R., Esq., Manchester	1	1	0
*Brown, Dr. A.	1	1	0
Buchanan, G. Esq., Glasgow	1	1	0
Burger, Dr.	0	10	6
Burrows, Dr., F.R.S.	2	2	0
Coles, S. J., Esq.	1	1	0
Cregeen, Dr.	0	10	6
De Meric, Dr.	1	1	0
Elliott, J. W., Esq.	2	2	0
Executive Committee of the Great Northern Hospital	10	10	0
Franklyn, G. P., Esq.	1	1	0
Gilbert, E. J., Esq.	1	1	0
Harrison, R. E. Esq., Hull	0	10	6
Heath, F. W., Esq.	2	2	0
Hirsch, Dr.	0	10	6
Holt, Barnard, Esq.	2	2	0
Johnson, Dr. George	2	2	0
Keeling, G. R. Esq.	1	1	0
King, R. F. H., Esq.	2	2	0
Lindsay, J. B., Esq., Dover	1	1	0
Margetson, W. Esq., Dewsbury	1	1	0
Martin, Dr. J., Portsmouth	2	2	0
Murchison, Dr. Chas., F.R.S.	1	1	0
Palmer, J. E., Esq., Peterborough	1	1	0
Parkinson, E., Esq., Brighton	0	10	6
Parrett, P. L., Esq., Douglas, Isle of Man	1	1	0
Powell, Dr. Josiah	1	1	0
Pretty, W., Esq.	0	10	6
Reed, H. B. Esq.	1	1	0
Reynolds, Dr.	1	1	0
Roberts, C. D., Esq., Ramsgate	1	1	0
Rogers, Henry, Esq.	1	1	0
Rogers, Josiah, Esq. (second donation)	0	10	6
Rogers, T. A., Esq.	1	1	0
Silicated Carbon Filter Co.	1	1	0
Snape, J., Esq., Liverpool	2	2	0
Spencer, H. L., Esq.	1	1	0
Sutro, Dr.	2	2	0
Turner, J. S., Esq.	1	1	0
White, R. Esq., Norwich	1	1	0

* This gentleman has promised more, if needed.

RETIRING ALLOWANCE OF ARMY MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your article on the army in last Saturday's issue, I find stated that a Medical officer in the army has the option of retiring on twenty-five years' service with a pension of £1 per day for the remainder of his life. I cannot find the statement in, I believe, the last Royal Warrant for the pay and non effective pay of Medical officers. I am, &c.

January 7. X. Y. Z.

*** Practically, where a Medical officer retires at the end of twenty-five years' service, he obtains 20s. per diem, because most men are invalided; otherwise, a Surgeon-Major retiring after twenty-five years has seven-tenths of his daily pay—18s. 10½d.

A CAUTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A fortnight since I engaged a person indoor as dispensing-assistant in an open Surgery. I had a fair character with him; indeed, had I not taken him, he would have been re-engaged *pro tem.* by the Practitioner who gave the character. He was with me four days, and left suddenly in my absence, leaving the front door open. My silver catheters, post-mortem case (new), and several books were immediately found missing. He was treated well, and took his meals with me. I do not describe him or give his name for obvious reasons, but will be happy to communicate with any inquirer, as I find he has offered himself elsewhere. I enclose card. I am, &c. B.

London, January 8.

ABYSSINIAN INFORMATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Permit me to direct your attention to an interesting paper on Abyssinia which appeared many years ago in a French Medical journal, and to which it might be interesting to refer your readers at the present time. It is entitled, "Notes sur quelques Mutilations pratiquées comme Supplices en Abyssinie et observées à Adoua, Capitale du Tigré. Par le Dr. Antoine Petit, Voyageur du Muséum d'Histoire Naturelle" (*Gazette Médicale*, October 17 and 17, 1840, pp. 481-2, and 489-90). It has not been noticed in the lately published Bluebook on Abyssinia, or elsewhere.

I am, &c. WILLIAM SEDGWICK.

12, Park-place, Upper Baker-street, N.W., January 3.

UNIVERSITY OF EDINBURGH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As I conjecture that your paper is read by the authorities of the Edinburgh University, will you allow an old Edin. M.D., through your medium, to draw their attention to one of their regulations? I allude to the Preliminary Examination, the time of which appears to be fixed in order to discourage any English public school-boy going to that northern place of education. The date of matriculation is March 25, and lectures begin on May 8. No prudent father could leave a boy of 18 idle for six or seven weeks in a large town, his own master for the first time of his life, and with money in his pocket. If he returns home, there is the expense of a journey of many hundred miles, and stay at an hotel by two people. In addition to this there is the much more serious objection that March 25 breaks a term at any English school. A boy must therefore leave school at the previous Christmas, with the permanent disadvantage of having left school a form lower than if he had stayed till Easter. At all other Universities the examination for matriculation is two or three days only before it. I am, &c. AN M.D. OF SOUTH DEVON.

Cranford, Exmouth, December 24, 1867.

EARTH SEWAGE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The success of the "earth-closet system," as it is called, seems just now to be endangered by the overzeal of its advocates. Dr. Hare by no means exaggerates the importance of the sanitary questions which this system involves, for upon the manner in which human excreta are disposed of depends in a great measure the health of whole populations. There can be no doubt that an earth-closet must be a great boon in countries or localities where a thorough plan of drainage does not exist; but after the immense expense and great inconvenience to which we Londoners have been subjected during the last few years in completing the main drainage of the metropolis, we may well pause before we rush into the opposite extreme, and, instead of utilising our water-closets, traps, sewers, and reservoirs, return to the primitive method of covering up our fæces with a little earth. No doubt much of what Dr. Hare says respecting the nuisance and unhealthiness arising from the bad management of our water-closets and drains is perfectly true, and in almost every house some improvement or additional care is required. With respect to the ingenious modification of the earth-closet suggested by Dr. Hare, it appears to me that this accurate divarication of fæces and urine would not be possible for women to accomplish, however it might be attainable by men. It is in severe sickness, too, when the excreta are so offensive, and often poisonous, that a separation of fæces and urine in an earth bed pan would be most difficult to accomplish. I am, &c.

December 28, 1867. LONDINENSIS.

SCURVY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—From the number of communications I have received since the publication of my letters on the Mercantile Navy in the *Times*, as well as in your own columns, from Medical men and others interested in the hygienic condition of our merchant seamen, I find that many persons are under the impression that the raw potato loses much of its anti-scorbutic property when cooked. As such a belief is likely to prejudice ships' Surgeons and seamen against cooked or preserved potatoes, which are admitted by all competent authorities to be the only real preventive against scurvy—lime-juice being but "the antidote to a poisonous diet"—perhaps you will allow me to state that the potato is equally effective when cooked, and certainly much more palatable, a discovery which, Sir Thomas Watson says, we owe to the sagacity of Dr. William Baly, for some time Physician to the Millbank Penitentiary, in which prison scurvy was at one time not uncommon. "Dr. Baly has shown," Sir Thomas states, "most satisfactorily that the liability to this malady has a strict relation to the amount of succulent vegetables consumed by the prisoners, and especially of potatoes. Wherever this disease has prevailed, there the diet of the prisoners, though often abundant in other respects, has contained no potatoes, or only a very small quantity. In several prisons the occurrence of scurvy has wholly ceased on the addition of a few pounds of potatoes being made to the weekly dietary."

On a future occasion I will, with your permission, point out the urgent necessity of a still further amendment of the Merchant Shipping Act, as I am firmly convinced that until an obligatory dietary scale is enforced by legislative enactment, we shall not see that scourge of the sailor's life—scurvy—effectually banished from the "ills to which flesh is heir."

I am, &c. W. DOMETT STONE, M.D., F.R.C.S. Exam.

Medical Club, Pall-mall, Dec. 26, 1867.

THE SUBCUTANEOUS INJECTION OF MORPHIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The case described by Mr. Braine in your last week's journal of an unusual effect of subcutaneous injection, is what I have seen in two instances, but nothing like to such an alarming extent. One was in a gentleman whom I had injected several times previously, the other in a lady. I have also partly noticed it when I have injected myself. In the first case, a few minutes after the operation, the face became intensely flushed; this was followed by vomiting, and then a dead faint and struggling for breath, the pulse scarcely perceptible. These cases, and the effect on myself, taught me, when injecting a patient for the first time, never to give more than the sixth of a grain, wait a quarter of an hour or longer, and then give the remainder of the dose, after ascertaining how the first injection was taking effect. Women, I have found, are generally bad subjects for subcutaneous treatment, for they get

frightened and nervous—in fact, one woman told me that though the morphia taken by the skin did her more good than by the mouth, yet she preferred the latter, for the instrument frightened her. I have used my needle over 500 times, and I have always noticed one fact—that, if the wound bleeds after the operation, the morphia enters the system much more powerfully and rapidly; and I always know when it is going to bleed by the operation giving a good deal of pain. When this is the case, I withdraw the instrument, to see if the puncture bleeds; if it does not, I replace the needle, if it does, I try a fresh place. I mention this because I think it is important, though I have no doubt others have noticed the same. I am, &c. ARTHUR ROBERTS.

37, Kensington-square, Jan. 5.

The Physiology of Hunger.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following extract from Beaumont and Fletcher's "Sea Voyage," act iii. sc. 1, which I find in Schiller's "Laocoon," may perhaps interest such of your readers as desire a picture of the ideas which a poet supposes may reign in the soul of famished men. The *dramatis personæ* are the officers and Surgeon of a pirate ship wrecked in the West Indies.

I am, &c. VELEPN.

Lamure. Oh, what a tempest have I in my stomach!
How my empty guts cry out! My wame rumbles;
Would they would bleed again, that I might get
Something to quench my thirst.
Franville. O Lamure, took ye no less than dog's-head
When I kept house at home! They had a storehouse—
A storehouse next most blessed [illegible] and nuts,
Happy cross. Oh, how sharp-biting at parches me!
Lamure. How now, what news?
Mordillo. Hast any more yet?
Franville. Not a bit, that I can see;
Here be goodly quarries, but they be cruel hard
To crack. I have set my mind [illegible]
Very good teeth I had, but [illegible]
There's old 20 ten trunks of trees, too;
But not a leaf nor [illegible] that I find.
Lamure. How it looks!
Mordillo. It stinks too.
Lamure. It may be poison.
Franville. Let it be anything,
So I can get it down. Why, man,
Poison's a princely dish.
Mordillo. Hast thou no bisket,
No crumbs left in thy pocket? Here is my doublet;
Give me but three small crumbs.
Franvil'e. Not for three kingdoms,
If I were master of 'em. Oh, Lamure;
But one poor joint of mutton, we ha' scorned, man.
Lamure. Thou speakest of Paradise;
Or but the snuffs of those healths,
We have lewdly drunk night long away.
Mordillo. Ah! but to hear the glasses
Franville. Here comes the Surgeon, what
Hast thou discovered? Smile, smile, and comfort us.
Surgeon. I am expiring;
Smile they that can. I can find nothing, gentlemen;
Here's nothing can be meat, without a miracle.
Oh that I had my boxes and my lints now—
My stupes, my tents, and those sweet helps of Nature!
What dainty dishes could I make of 'em!
Mordillo. Hast never an old pappy?
Surgeon. Oh, would I had sir!
Lamure. Or but the paper case of a [illegible]
Potion or pills hath been entomb'd.
Franville. On the best [illegible] where's a cooling clister?
Morilla. Hast thou no sear cloths left?
Nor any old [illegible]
Franville. We can make use to what it hath been administered
Surgeon. Sure I have none of these dainties, gentlemen.
Franville. Where's the great wen
Thou cut'st from [illegible] the scall'd soldier
That would serve now for a most [illegible] plaster.
Surgeon. Ay, if we had it, gentlemen.
I flung it overboard, slave that I was.
Lamure. A most impudent villain

Position in the Reduction of Strangulated Inguinal Hernia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It has been frequently observed in many things, and especially in Medicine, that very often the employment of means directly opposite conduces to the same result. [illegible] in the reduction of strangulated inguinal hernia is evidenced by my practice compared with that of Dr. Bond, detailed in his letter in last week's *Medical Times and Gazette*. During the [illegible] of strangulated inguinal hernia came under my care. In the first case, having exhausted all the usual methods recommended for the reduction of strangulated hernia, I determined to give nature a trial, aiding her with a favourable position. To this end I placed the patient on a fracture bed, to the foot of which I [illegible] I then raised that end of the bed so as to bring his feet on a higher level than his head, underneath which I placed [illegible] pillows, [illegible] shoulders were the lowest part of the body, from which [illegible] was elevated upwards [illegible] In the position I left the patient for [illegible] hours, [illegible] and found [illegible] of the hernia [illegible] the [illegible] circumstance. On my return I found the reduction complete. Subsequently [illegible] the [illegible] descended hernia for twelve hours before he applied for relief.

The [illegible] general [illegible] which [illegible] the [illegible] the last part first, instead of, as in the ordinary taxis, an endeavour being [illegible] the [illegible] failed [illegible]

if the intestine were a solid cylinder in which an impulse applied at one end could be communicated throughout. Every student knows how slippery are the intestines in the dead subject, and how inclined they are to obey the laws of gravity when held in the fingers, and this the more when the weight of the mass is brought to bear on a smaller portion; and it is not to be supposed that these laws are less effective in the living body.

I do not know whether I may not be rehearsing a mode of proceeding already known to the Profession, but it is one that I have not read of or seen tried. I may add that although I had the convenience of a fracture bed for my patients who were treated in an Infirmary, yet any arrangement of an ordinary bed which will place the patient in the proper position will answer the purpose. I am, &c.

Portsmouth, January 7. R. E. POWER.

Beef and Mutton.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Just now the mutton and beef question is causing much correspondence in the press. I observed some few weeks since, in the *Medical Times and Gazette*, a letter subscribed by a London Physician, who astonished myself and doubtless many others of your readers by his statement therein. He appears to enjoy excellent health, and seems to consume but a very moderate amount of beef and mutton—the exact quantity I do not recall. I am a paterfamilias, the happy father of four rather capacious mouths. I am likewise an M.D. on the right side of forty, my practice but small, and my pockets but indifferently well-filled. After reading the letter referred to, the following economic problem suggested itself to me:—Given a certain proportion of animal food sufficient to nourish and maintain in excellent condition a hardworking London Physician: how much of the same aliment daily is necessary to keep four children in health and strength? I thought on the question a good deal, but was unable to arrive at any convenient solution of the problem. I was ignorant of any statistics bearing on the subject which might assist me. I remembered that soldiers and other large bodies of men had been experimented on with a view of determining what amount of animal food daily is sufficient to maintain them in the highest condition of health. But then my children are not soldiers or big men, and just now with children only am I concerned. Mutton is, say, ninepence a pound. Suppose I give of this half a pound daily to each of my children, do I give them sufficient, or, on the other hand, do I give them too much? This question appears to me to be a Medical one, a physiological one, and an economic one, of European importance, and one which, so far as I know, has not been mooted to any great extent. If I give my children too much animal food, I injure their health and abuse my pocket. If, on the contrary I give them too little, it is true my money is saved, but again at the expense of my children's health. Usually, I am disposed to believe, the inclination of the children has been the sole guide with heads of families. If the child be fond of meat (as children generally are, usually liking that food which possesses a considerable amount of pungency), and inclined to eat abundantly of it, he is allowed to do so—in fact, is permitted to eat as much as inclination dictates. Now, perhaps some of your many kind readers will help to guide me, and others similarly circumstanced, in this matter. Were any statistics on the subject ever collected? Are there any facts, on an enlarged scale, extant? I do not wish to rob Peter (my children) nor Paul (my pocket), but I should much like to learn what is the proper amount by weight of cooked meat sufficient to support in health, strength, and spirits, four children of an average age of six years. Are there any data sufficiently reliable by which I can form an opinion? Is there any physiological principle to guide me, or am I to give the little ones their heads and allow them to judge for themselves? I am, &c. W. A. J.

Bangor, December 27, 1867.

Recruits for the Army.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Within the last few years a good deal of discussion has taken place regarding the difficulty of obtaining a sufficient number of recruits to fill the blanks in our land forces. There is no doubt that a difficulty has been found. Such being the case, perhaps it may be worth while to ask the question whether the present Medical examination of recruits is not too stringent, and whether staff Medical officers ought not to be appointed for the express purpose of examining recruits at every recruiting station. At present, in a great number of stations, there is no staff Medical officer, and the duty of examining all the recruits of the district is thrown on the nearest regimental Medical officer, who, in addition to his regimental duties, has a number of recruits to examine every morning. Should he pass good men, he gets no reward and no thanks. If he pass a man who is afterwards rejected, he has to give his reasons in writing for having passed the man, and very likely gets a good wigging from the authorities into the bargain; so that he dare not pass a man with the slightest imperfection, however fit he may in his own mind consider him for the duties of a soldier. It follows that, however eager in the beginning of his career a military Surgeon may be to pass good men for the service, he is very soon chilled in his ardour by a lot of official communications regarding recruits whom he considered fit for the service, and whom a Medical board did not, and is forced in sheer self-defence to reject many good men who have just some one slight imperfection. In passing men to service on board ship it is different. If a military Surgeon pass a man in his opinion fit, and the man is afterwards rejected at the secondary examination, the Surgeon never hears about it; so, being free from all fear of official correspondence regarding how he came to pass so and so, he naturally uses his own judgment in passing or rejecting men, and does his very best for the service, [illegible] many good and efficient men whom he dare not pass for the army.

In [illegible] there is [illegible] Medical officer, the [illegible] are [illegible] passes who is finally approved at head-quarters, and 2s. 6d. for every recruit whom he rejects. Consequently, in a good district, the civilian [illegible] regimental Surgeon, who, having so far the misfortune to be in the service, is debarred from all such pickings—in fact, it is made the interest of the [illegible] every [illegible] army pay, get something for every recruit passed into the service, while the Medical officer, [illegible] Medical inspection, gets not one halfpenny.

[illegible] coming forward for the army, and the authorities are very likely giving

that future in such a thing as a scarcity of men for the army will be unknown. There is no doubt that the late change has had a most powerful influence in actuating men to *engage*, but with respect to men enlisting for the first time I, for one, do not believe it has had the slightest influence. I never yet found a recruit who entered the army from an intelligent appreciation of its advantages as compared with other walks in life. No recruit that ever I examined could tell what the amount of his pay in the army would be, nor how much, if any, would be deducted for his daily food. The majority of them do not know in what part of the world the regiments into which they enlist are at the time located, and seem quite indifferent whether they go to the equator or the North Pole. One or two recruits will tell you they entered the army from a love of adventure—to see life, as they express it; one or two because they had a vague idea that they would like to be soldiers; the great majority because they are out of work—because they are starving. In fact, the working population regard the army as a last resort, and I am inclined to believe that the present influx of recruits is caused solely by the present commercial distress and the difficulty of obtaining employment. Avoiding all reference to this subject from my respect except as a Medical, I am inclined to believe that more good recruits would be passed were a staff Surgeon appointed to every recruiting district, whose decision as to the fitness of a man, medically speaking, for the duties of a soldier was final and absolute.

I am, &c.

X. X.

DR. T. BLIZARD ON CHOLERA AT CAPRI.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As a medical friend of mine formed, perhaps the following anecdote may afford some amusement:—The Syndic of Capri, at the epoch before referred to, was introduced to our Profession. Dr Tschudi and to him I applied several times to have the drains of the town flushed, deodorised, etc. He fell in with all my views, and acted with considerable energy. As a [illegible] was appointed, whose duty it was to inspect the wretchedly dirty houses of the fishing population at the Marina Grande, or principal landing place. To the Syndic and to the latter I gave several bottles of Condy's fluid, and carefully translated the directions into Italian. But last time cholera was spoken that the "Dottore Inglese" had introduced many bottles of cholera poison into the island, and the Officer of Health made a secret and mysterious visit to the Syndic to denounce my attempt. Under other circumstances the consequences to me might have been very serious, but the Syndic, having previously been informed of the composition of the fluid, with prompt tact poured a small quantity into a tumbler of water, and drank off the contents, much to the astonishment of the Health Officer. As the Syndic continued [illegible] health, I was shortly afterwards the happy subject of suspicion.

COMMUNICATIONS have been received from—

Dr FOTHERGILL, Dr J. B. THOMAS, Dr. MAYNE, M.B.; ANSTIE, PEACOCK; Dr. LEWIS LEE, Dr J. H. HILL, Mr W. L. POTTER, Mr T. P. TEALE; Mr CLEMENTS, Mr W. SHEARMAN, Mr. BALLS, Mr C. R. FRANCIS; Mr. MOORE, Mr CONSTABLE, Mr. BELCHER; Mr. PRIEST, Dr. R. E. FOWLER; Mr. LUCAS, Mr C. H. CLARKE, X. Y. Z., Mr. HOLT DUNN; F. F. L., Dr. BARNES; Dr. ARTHUR ROBERTS; Mr. J. H. SIMPSON; Mr. C. H. BEAVER; Mr CALLENDER; Mr RIDDELL; Mr CHELSWRIGHT; Mr F. H. SMITH; Dr. B. W. RICHARDSON; Dr. HUGHLINGS JACKSON; Mr. G. RAINEY, Mr J. HUTCHINSON; Dr. W. BUDD; Mr. J. CHATTO; Dr W. ROBERTS.

BOOKS RECEIVED—

Wilson Fox on Dyspepsia, Second Edition—Pharmaceutical Journal, No 103—Glasgow Medical Journal, No 1—Edinburgh Medical Journal, No 151—Watts's Dictionary of Chemistry, Part 43—Westminster Review, No. 65—Baker Brown on Ovarian Dropsy, Second Edition—Medical Mirror, No. 49—Pairman's Sulphur Cure—Dewar's Sulphurous Acid Gas—Houghton's Threefold Nature of Health and Disease—Microscopical Journal, January—British and Foreign Medico-Chirurgical Review, January—Half-yearly Abstract of Medical Sciences, Vol. XLVI.—Curgenven on Rowing—Mental Journal, No 64—Prince on Penile Surgery.

VITAL STATISTICS OF LONDON

Week ending Saturday, January 4, 1867.

BIRTHS.

Births of Boys, 1190; Girls, 1098; Total, 2288.
Average of 10 corresponding weeks, 1857-66, 1988·9.

DEATHS

	Males.	Females.	Total.
Deaths during the week	831	803	1634
Average of the ten years 1857-66	736·6	752·2	1488·8
Average corrected to increased population..	..	..	1645
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	6	7	4	7	1	3	..
North ..	618,210	5	12	13	2	10	17	2	1
Central	37[illegible]58	4	7	1	2	7	3	3	..
East ..	571,158	5	17	2	1	8	7	6	..
South ..	773,175	7	13	20	2	20	12	1	1
Total ..	2,8[illegible]9	22	55	43	11	52	40	15	2

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·020 in.
Mean temperature	39·1
Highest point of thermometer	49·7
Lowest point of thermometer	22·8
Mean dew-point temperature	23·2
General direction of wind	N.E.
Whole amount of rain in the week	0·05

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 4, 1867, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Persons to an Acre. (1867.)	Births Registered during the week ending Jan. 4.	Deaths. Corrected Average Weekly Number*	Deaths. Registered during the week ending Jan. 4	Temperature of Air (Fahr.) Highest during the Week	Temperature of Air (Fahr.) Lowest during the Week	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3[illegible]6,5[illegible]	30·1	2[illegible]38	1441	1624	40·7	22·8	30·1	0·05	5
Bristol (City) .	1[illegible]74[illegible]87	35·7	111	75	173	36·8	23·7	29·6	0·12	5
Birmingham (Boro')	3[illegible]2[illegible]6	4·0	..	171	200	[illegible]·8	24·2	30·9	0·05	5
Liverpool (Borough)	[illegible]5[illegible]98	[illegible]·1	..	296	306	38·8	2·4	32·3	0·21	21
Manchester (City) .	3[illegible]5[illegible]81	[illegible]·1	..	208	‡273	41·0	24·2	33·5	0·03	3
Salford (Borough) .	1[illegible]74[illegible]22	[illegible]·1	..	59	73	41·6	24·5	32·6	0·04	4
Sheffield (Borough)	2[illegible]2[illegible]62	10·2	164	122	169	41·0	25·6	32·2	0·21	21
Bradford (Borough)	108019	16·4	49	55	67	..	..	..	..	..
Leeds (Borough) .	2[illegible]5[illegible]46	11·0	214	120	128	41·0	24·0	33·4	0·14	14
Hull (Borough)	1[illegible]3[illegible]3	[illegible]·4	[illegible]	[illegible]	[illegible]	41·0	24·1	32·0	0·41	44
Newcastle-on-Tyne, do.	1[illegible]5,0[illegible]5	[illegible]·4	[illegible]	[illegible]	71	43·0	28·0	35·0	0·50	54
Edinburgh (City) .	177039	10·0	151	85	75	..	..	..	..	..
Glasgow (City) .	44[illegible]5[illegible]8	[illegible]·9	355	202	230	40·0	22·5	30·4	0·02	2
Dublin (City and suburbs)	3[illegible]6[illegible]5	[illegible]·2	166	‡157	196	47·7	22·6	34·8	0·10	10
Total of 14 large Towns .	5[illegible]2[illegible]	31·7	4722	3163	3[illegible]	47·7	21·9	33·4	0·15	15
					Week ending Dec. 28		Week ending Dec. 28			
Vienna (City)§	(1863) 560000	..	..	..	320	..	..	26·6	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·[illegible] in. The [illegible] reading decreased from 30·[illegible] on Monday, [illegible] to 29·[illegible] on Saturday, January 4.

The general direction of the wind was N.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1 1864; the average weekly number of births and deaths in Dublin are calculated herefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 37·2°.

APPOINTMENTS FOR THE WEEK.

January 11. *Saturday (this day).*

Operations at St Bartholomew's, 1 p.m.; St Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

13. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Lettsomian Lectures—1. Dr. Buchanan, "Tuberculous Disease of the Lungs in Children."

ODONTOLOGICAL SOCIETY, 8 p.m. Anniversary.

14. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

12, HINDE-STREET, W.—4½ p.m. "Lectures on Experimental and Practical Medicine," by Benjamin W. Richardson, M.D., F.R.S.

ANTHROPOLOGICAL SOCIETY OF LONDON, 4 p.m. General Anniversary Meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr Thomas Smith, "On the Cure of Cleft Palate, by Operation, in Children." Mr. Thomas Bryant's "Case of Colotomy for Vesico-intestinal Fistula."

15. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Dr. Althaus, "On Some Therapeutical Applications of Electricity and Galvanism."

17. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

CHOCOLAT-MENIER.

(Manufactured only in France.)

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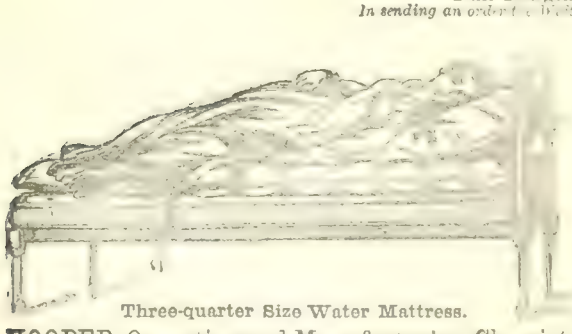

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ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

INTRODUCTORY REMARKS ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM.

(*Continued from page* 31.)

On Aphasia and the Education of the Cerebro-spinal Centres.

When we come to treat of paralysis, the subject of speech will have to be considered, and, therefore, I think I had better refer to it in these introductory remarks. Now take it *ab initio*. When mankind, having received impressions on their brains, wished to communicate the results to others, they were forced to do so by signs, these being made by using their fingers in a determinate manner, or, by a process which would be far easier, by putting into operation the larynx during the process of breathing. In the latter case, certain definite sounds would correspond to certain definite ideas, and thus the science of language. How particular words came into use is not our province to determine, as, for instance, whether all language had a common origin, and arose under certain natural conditions. The subject is an interesting one, and will be found discussed in works by Max Müller and other learned writers. Mr. Mill declares that Hobbes's definition is unexceptionable, and is as follows:—"A name is a word taken at pleasure to serve for a mark which may raise in our mind a thought like to some thought we had before, and which, being pronounced to others, may be to them a sign of what thought the speaker had before in his mind." Speech is a subject of great interest and importance to us from a clinical or pathological point of view, for a loss of it appears, according to the kind of loss, to have very definite causes. In the first place, supposing the cortical structure of the brain were involved, there might be loss of speech simply from want of mind. This might occur in acute disease or in congenital fatuity, where idiot children are thought to be dumb. Then, again, as speech is performed by the action of certain muscles, if these muscles are paralysed by disease at the centres whence nerves to these muscles spring, then, of course, the power of speech is destroyed. The patient's mind is perfect, he knows the words to utter, but the apparatus for producing them fails, and he is forced to write down his ideas on paper. I have three such cases now in Stephen and Mary wards. But this is not all; it seems as if an intermediate organ or process were required between the part whence ideas are procreated, and the muscles of speech to be operated on in order to produce the sound. Suppose an engine made for the performance of some special result, as turning a screw or planing or boring: it would not be sufficient to have a simple motive force capable of producing a simple action, but a complex machinery must intervene whereby the original motive power is converted into a regular and uniform result. The signal-man wishes to move certain points of the rails, and for this an apparatus is required. So in the brain it does not seem sufficient that ideas should be formed therein, and that the vocal nerves and muscles should be influenced at once by them—for probably a mere irregular movement would arise, and a number of discordant sounds be produced—but it is necessary that the vocal nerve-centres should be acted on in a definite manner; and thus it appears that between the surface of the brain, where ideation is carried on, and the origin of the nerves to the vocal apparatus, there is a part of the brain where the ideas are put into form, into the form of speech, and here, as it were, the strings are pulled which set the machinery in motion. It this is damaged, the power of speech has gone, and we have what is called "aphasia." Now this part of the brain is said to be a certain portion of the convolution on the under surface of the front hemisphere, and, having been first pointed out by Broca, has been styled Broca's convolution. And more than this, this spot, which rules over our speech, is situated on the left side of the brain. This conclusion has been arrived at from the well-observed fact that loss of speech almost invariably accompanies hemiplegia of the right side of the body; and since, on post-mortem examination, some lesion of the corpus striatum with portions of brain surrounding it is discovered, the faculty of speech is considered to be intimately associated with these neighbouring convolutions. I would here observe that, although the original discoverer of any new truth very justly receives the credit for its first introduction into the world, yet its further development and propagation are often due to others; and thus with regard to this very interesting question of the "location of speech" and kindred subjects, I have no hesitation in saying that in this country, at least, our Profession is entirely indebted to Dr. Hughlings Jackson for first introducing it to their notice. Since he has done so, some of the most eminent in our Profession have substantiated his statements, and have endeavoured to account for the remarkable fact of speech being localised at one side of the brain. I will here state that an attention to the subject convinced me long ago of the truth of Dr. Jackson's observations, and that loss of speech was associated with right and not with left hemiplegia, but I am not yet convinced that, in order to produce the result, the particular convolution mentioned must be involved; and for these reasons. When paralysis exists, we believe that some portion of the motor tract must be affected, and that this need not arise from a local lesion of the cortical substance; consequently it might be thought possible for hemiplegia to occur without loss of speech, and *vice versa*, but I cannot find that this is the case. It is true that, in many of the treatises and papers which have been written on the subject, the question of paralysis has been altogether omitted from the discussion, but the titles of few of the articles have appeared otherwise than as "aphasia with right hemiplegia." It ought, then, to be shown that disease in the corpus striatum alone will not cause aphasia, and that disease of the neighbouring convolution is sufficient to produce it without any hemiplegia; unless, indeed, it can be proved as a still further fact that the motor tract extends beyond the region commonly ascribed to it, and thus disease external to the corpus striatum can produce paralysis.(a) If it really be found that a lesion of a particular convolution were sufficient to account for the loss of speech, I should be content to accept one or other of the theories offered in explanation of the fact; but believing, as I do, that aphasia is almost invariably found with hemiplegia, I have no hesitation in here stating my firm conviction (as you have heard me do over and over again) as to the truth of the theory propounded by my colleague, Dr. Moxon. This theory has been handled and discussed by nearly all those writers who have treated of the subject, and, I believe, laid aside by all. In spite of this, I more firmly hold to the opinion than I originally did, both because the arguments against it appear to be of little weight, and also because fresh light and a further consideration of the subject have added new arguments in its favour. Dr. Moxon wrote a paper to the effect that the remarkable fact of speech being apparently located on one side of the brain was due to education—that one part of the brain had become educated for the purpose of speech. This, being an altogether new idea to many, was stoutly opposed; but my own opinion is that, so far from its being a simple hypothesis made to account for one phenomenon, it deserves to be raised to the position of a theory to explain not only the faculty of speech, but all other voluntary movements of the body. I take it that the idea of education of the nerve centres is the clue to the understanding of the various mechanical arrangements of the body. This, then is my theme—the *necessary education of the cerebro-spinal centres* for all the active purposes of life—and out of this comes the solution of the question, Why is speech irretrievably lost from lesion on one side of the brain?

I have already informed you that the volition does not determine each particular movement of a muscle; the nerves are so arranged that a complex result may follow a certain act of the will; a centre on some part of the spinal cord receives its impulse from above, and then sets in motion the machinery. This centre may, by constant reception of the same stimulus, become habituated to certain performances—it may become educated to produce certain results. The impulse of the will is merely required to set it in action. The keynote, as it were, being given, it will commence to guide the hand in the performance of some musical air, while the mind is wandering elsewhere. You ask why do I affirm this? Then ask yourself the question, When a limb is educated to any

(a) Since this lecture was delivered [illegible]

movement, how does it differ from what it was before? Does it differ? The fingers may be more flexible, but the possession of flexibility does not make a musical man. A child may gain dexterity with the fingers, but never learn her notes. Surely the man of musical genius is educating, by constant practice for the violin, not the hand, but the centre which rules over the nerves supplying the hand. If you were to divide the nerves in the brachial plexus, the arm, of course, would be paralysed; the brain centre would remain as before, and the capability of playing; the man would still know *how*. Let, however, the centre which rules over the nerves of the hand be diseased, and this power has vanished. The same with writing, or any other movement.

A man who has disease of the cerebrum proper may have intellectual disturbance—he may be a maniac—but he can direct an impulse to his arm in order to write, although the effusion may be nonsense; and, on the other hand, every ability to write may remain, but he cannot do so if the instrument or arm is destroyed. Let this man, however, have disease in the corpus striatum, the arm can no longer write. Of course, say some of you, it is paralysed. Well, let him try the other hand; he cannot write with that, and why? He has the mind or will, and he has the mechanism. Then why cannot he write? Because it is not educated. This fact is such an ordinary one, and so often before us, that we overlook the great lesson which it teaches us—that when a man has learned to use the right hand for any purpose, he has educated the centre which rules over its nerves. Let a man have a musical genius, he arranges his ideas into such forms that when taking a violin or piano he strikes out the whole piece. He may write an opera, and it can be conceived that, by constant repetition, he might know it by heart—which means he might transfer the whole score to his corpus striatum. If he played the violin with his right hand, as is usually the case, a disease of the left corpus striatum would destroy his power. Transpose, if possible, the right and healthy corpus striatum to the diseased side: the music would not return, for this ganglion had never stimulated the left arm to play. Here, then, we have encountered one of the difficulties which in the matter of speech is thought by some insurmountable—that it is inconsistent with the great plan of nature that a part should have been created simply to remain in an undeveloped state. But we must take the facts as we find them. Leaving alone the subject of the brain proper in reference to phrenology, it seems to me an incontrovertible fact that the two halves of the cord are functionally unlike. Where the two sides meet to form a single column, it is very likely that a spot on one side stimulates the adjacent one, and that the two act in unison, and thus the two sides of the body work together as a whole; but far otherwise is it with the superior portions of the cord, which diverge into distinct centres, and very different is it with the extremities (ruled by these centres) which have their own special movements.

Now carry the argument a step further, and suppose that the signs which represent thoughts were made with the hand (the right hand), why then disease in the left corpus striatum would take away the power of communicating thought. If for these movements of the hand we were to substitute the word "speech," why then speech would be gone. It is clear that disease on one side of the brain would have obliterated speech. Is not now half the difficulty removed from your minds in reference to the location of speech being on one side of the brain? If, instead of an influence of the nature of a galvanic force being transmitted from the brain to the nerves of the arms, these nerves were like so many strings which required to be pulled, you would, no doubt, see a movement going on in the corpus striatum as on the keys of a musical instrument. Destroy the apparatus, and all power has gone. If thoughts were conveyed by the hand, and the corpus striatum diseased, communication would be lost between the patient and others. He not only could not communicate, but would not know *how*. If this be true of signs made by the hand, why not of signs made by the larynx—that is, of words? What is the difference? The larynx and tongue are central organs; and herein consists, I take it, the whole difficulty in the matter. These organs are double, made up of two halves, and acted on by two sets of muscles and two sets of nerves. Now, in order to set a central organ in motion, is there needed anything more than a stimulus directed to the nerve centres from one side? We know, as a fact, that in hemiplegia, where the impulse of the will cannot act except through the ganglia on one side, that the chest and trunk of the body still move as a whole, and that the larynx still acts for vocalisation and respiration. This is the part of the subject so ably treated of by Dr. Broadbent, and on which, I think, the whole difficulty rests. But even in the case of the extremities, as Dr. Moxon has shown, one of them may move without any direct stimulus sent to it, but simply from sympathy with the other. In the well-known trick of attempting to roll the two hands in contrary directions, it is evident that the stimulus is conveyed to one centre, and the other takes up the action. For the accomplishment of the trick, very long education is required. In more elaborate movements, such as playing the piano, if the left hand merely follow the right, a disease in the left corpus striatum would take away the power from both. The faculty of playing music would thus appear to be in one side of the brain. It is probable, therefore, that although the organs of vocalisation are central and made up of two halves, the stimulus to their action proceeds only from the left side, except in the case of an exclamation, when a disruption of brain-force may act on either centre, and thus aphasic patients may occasionally utter words.

I would ask those who perceive a great objection to the localisation of speech on one side to forget for a moment this subject, and consider, as I have done, the question of the education of the spinal centres for the purpose of special mechanical movements, and I think they cannot but conclude that, although at birth the two sides of the brain are anatomically equal, they soon become functionally very unlike one another; for if the two sides of the body are practised to different movements, it follows that the centres of force are educated for the purpose. When I say the two halves of the cerebral and spinal centres are alike at birth, I am speaking in comparison with what they afterwards become, for in all probability the habit of the race to use one arm rather than another would produce in time a tendency for one side of the brain to take on a particular action rather than the other, in the same way as the pup of a pointer can be sooner taught its peculiar movement than the young of another breed. Thus, also, the explanation of the fact (if it be such) that the left side of the brain is larger than the right. So much more active is it that it is credibly stated that if a person be lost in a forest he will unknowingly use his right side more than his left, and, walking in a circle, come to the spot he had left.

So just does seem the theory that the localisation of speech to one side is due to education, or so long have I been in the habit of teaching it, that it has become to appear to me almost like a necessary truth, and one which we might even have deduced from *à priori* reasoning, in this way:—Each side of the body is habituated to particular movements; each extremity has gained a particular power of its own. This faculty resides not in the arm itself, nor in the brain proper, but in the central ganglia. Each arm performs movements of its own, all the more elaborate being performed by the left. Even when the hands are working in unison, it can be proved almost to demonstration that the stimulus passes from one only. When the chest is moved it can be shown that the impulse is conveyed through one of these ganglia. Might it not therefore be conjectured that the movements required for speech should be sent through one only, rather than the two sides being unnecessarily educated for the same purpose? And even more, does it seem possible that the two sides could be educated in a manner so as to produce no inequality, no confusion in the muscles to which they sent their influence? Think for a moment which method would be more conducive to the uniform movement of a double organ like the chest, larynx, or tongue—that a given and definite stimulus should be conveyed to the centre ruling over the half of the organ, and that the other centre should be affected by the same stimulus (owing to the union or commissure), or that each half should receive its own independent impulse from above? To prevent incongruity, the former would appear to be the more appropriate method. It does seem to me more reasonable that the larynx should be influenced from one side rather than that the ganglia on both sides should at the same time be sending down their distinct influences to an organ which must act uniformly as a whole. If two complicated pieces of machinery could act together or singly to produce a given result, it would be far simpler to employ one than the two together; for these might not without great difficulty act in unison, but be constantly jarring, and thus, perhaps, actually counteract each other. To go back to my old simile of strings being pulled at the central ganglia to act on the muscles below, although each might play in its own way on the limb, one can see the awkwardness of each acting separately on its own half of the larynx, which must act as a whole. A certain power, of course, is exercised by both, else we could not move the face or tongue

to either side. Now I proceed a step further, and declare that if one ganglion is to be educated rather than the other, it is probable that the left would be the one chosen, seeing that all complex movements are produced through it.

So far from seeing any difficulty in the fact of aphasia accompanying right hemiplegia, I feel enthusiastic enough with my own theory (originally propounded by Dr. Moxon) to believe that it might have been anticipated from our previous knowledge, and I have come to consider it as a necessary truth.

It may be said that this theory implies that speech is a motor act, and not a mental one. Truly so, and some of those who object may remember that they have overlooked the fact of hemiplegia almost invariably accompanying the aphasia. Probably the question arising out of this is not an important one, for if the attempt be made to separate entirely the office of speech from the thinking process which suggests it, the task will be found a very difficult if not an impossible one. It may be that the workings of the brain can never assume a definite shape without the use of signs or words, and that our mind can never at any time undergo the process of thinking without certain definite terms already made appropriate to the thoughts coming before the mental vision, or without the larynx and muscles of vocalisation passing, in the imagination, through a kind of inarticulate speech. "Names are impressions of sense, and as such take the strongest hold of the mind, and, of all other impressions, can be most easily recollected and retained in view. They therefore serve to give a point of attachment to all the more volatile objects of thought and feeling. Impressions that when past might be dissipated for ever, are by their connexion with language always within reach. Thoughts of themselves are perpetually slipping out of the field of immediate mental vision, but the name abides with us, and the utterance of it restores them in a moment. Words are the custodians of every product of the mind less impressive than themselves. All extensions of human knowledge, all new generalisations, are fixed and spread even unintentionally by the use of words." The intimate relation between thoughts and words is admitted by all; but it may be a question what kind of mental faculty remains when the knowledge of words has departed—what residuum of mind is then in the aphasic patient. Some writers state their confident belief that all mind, as far as can be told, has gone. My own opinion, however, is that this is by no means the case, and, from theoretical reasons, does not seem a necessity. A spot of disease in the brain may stop the "way out" for our ideas, being the place where they are clothed in words; but it does not follow that it stops the "way in," that impressions on the auditory nerve may not pass to the senscrium otherwise than through this weak place, or that the accustomed word shall not awaken the old ideas. As a matter of fact, our aphasic patients appear to understand the names of familiar articles of food, and, when recovering, can read or listen to a tale related. A patient whom I attended with aphasia is now recovering, but cannot speak, or, in the attempt, confounds one word with another, and yet clearly understands a novel that is read, as has been tested in many ways by her Medical attendant. But even supposing that, in the forgetfulness of all words, the mind cannot project itself in any definite form, it does not follow that much may not remain which, working after the nature of a reverie, is intimately associated with some of the higher manifestations of our being. Who can say what that genius is which exists in the brain of the poet or painter before the verses are impressed on paper or the picture on canvas? I am inclined to agree in the main with Griesinger's views on this subject. "Without doubt all the higher mental functions are bound in an intimate manner to speech; animals are mute, speech is a property peculiar to the soul of man. There are, however, moments of our existence when our inner life seems, for once, to be elevated above the form of words—when things unspeakable, inexpressible, unheard by human ear, rise as from a suddenly opened depth; and, upon after-reflection, perhaps, it seems to us as if all which we know, or may yet attain, could never be a realisation of what our innermost thoughts had conceived in a single such moment. Then one comprehends for the first time what is meant by 'despising the word.' Such circumstances, which by their nature are accompanied by very strong, even overflowing feeling, are probably more frequent in the various states of mental disease than in health." I would pause before I completely accepted these views, for it might tend to make "the lover, poet, madman, by nature all akin." No reader of Wordsworth can hesitate to believe that the poet has such higher enjoyments—as seen, for example, in such lines as the following, from the "Excursion":—

> "Sound needed none,
> Nor any voice of joy. His spirit drank
> The spectacle: sensation, soul, and form
> All melted into him; they swallowed up
> His animal being. In them did he live,
> And by them did he live: they were his life.
> In such access of mind, in such high hour
> Of visitation from the living God,
> Thought was not; in enjoyment it expired.
> No thanks he breathed, he proffered no request.
> Rapt into still communion, that transcends
> The imperfect offices of prayer and praise,
> His mind was a thanksgiving to the Power
> That made him; it was blessedness and love."

(To be continued.)

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON INTERMITTENT PULSE AND PALPITATION.

(Concluded from page 4.)

The cerebral origin of the symptom of intermittency is further proved by the fact that it dates often from acute shocks, mental or physical. I have traced the symptom to sudden fear, and in one striking case, in which a once well-known member of our Profession was the sufferer, it succeeded, as he himself admitted, upon a violent outburst of passion. Twice in my experience it has been the sequence of injury to the head from falls; and once it became pronounced for the first time after an attack of an apoplectic character in which the patient suddenly fell forward without warning, and remained insensible, with symptoms of pressure, for several hours. The most determinate causes of intermittent pulse are those in which physical and mental influences unite to depress. A woman, 25 years old, came before me in public practice as an out-patient, who had the extremest intermittency I have ever seen in one so young. The arterial action failed twenty-three times in a minute. The wonder to me was that, with such breaks in the blood circuit, life could be sustained. On inquiring into the causes of this irregularity, I traced it clearly enough to two causes. The poor woman had suffered a grief which long admitted of no assuaging, in the loss, at one time, of three of her children. She miscarried while thus mentally afflicted, lost a large quantity of blood, and continued for some weeks still to suffer from menorrhagia. In her case, under the free use of mineral acids and good support, and under the soothing influence of time, this patient recovered beyond my first expectation. At her last visit the intermittency was reduced to one in 160 pulsations.

I have been asked, and I have asked myself, whether intermittent pulse is ever produced by tobacco-smoking or snuff-taking, and at one time the evidence seemed to me to be in favour of the view that both these practices might be fairly set down as causes. But longer observation tells me that the suspicion is not correct, or rather that it does not hold as an absolute fact of causation. If the practices named were true and independent causes of the phenomenon, we should find, frequently, cases in the male sex where the cause stood alone, and we should also find the phenomenon much oftener in men than in women. In truth, however, I have never seen a *pure* case of intermittency from tobacco; neither have I been able to discover that the male sex is specially liable to the affection. At the same time, it is unquestionably true that when the symptom is developed, smoking and snuffing intensify it, not, I think, from any special influence, but from the general debility induced, the steady indigestion which the narcotic sustains, and the restless muscular action—tremor—which it favours and supports. Tobacco, in a word, acts like other depressing agencies, such as loss of blood, or want of sleep, or deficient food, or bad assimilation of food: it injures as a secondary cause; it does not produce from the first.

In men who chew tobacco, and in men and animals under the direct poisonous influence of nicotine, I have watched for the symptom of intermittency of the cardiac motion without result. The action of the heart is feeble and irregular, and all the muscles are in a state of restless tremor; the body is cold. But there is no pure intermittent action. The symptoms here are those of cardiac apnœa, of failure of the right rather than of the left side of the heart, with difficult respiration, and, in man,

spasmodic pain passing through the thorax, from the sternum to the pillars of the diaphragm. A marked case of this kind is recorded in the essay on cardiac apnœa in the first volume of the "Asclepiad."

I repeat, therefore, that tobacco, while it intensifies the symptom of intermittent cardiac action, does not produce it. The same remark is equally applicable to tea.

It might have been hoped, from our recent advances in the investigation of the functions of the several parts of the nervous system, that we should have been able ere this to determine, by direct experiment, the precise seat of injury in cases of intermittent action of the heart. Unfortunately, this information is at present withheld. We can modify very determinately the rate of arterial action by experiment—*i.e.*, by influencing nervous matter—but this special phenomenon of intermittent action is not definitively producible. I thought in one experiment, where the mass of the cerebrum in a pigeon was frozen, that the phenomenon was for a moment or two developed, but on repeating the inquiry the answer was not satisfactory. Presuming it to be true that the disorder is of cerebral origin, we may safely infer that the seat of injury is at the base of the cerebral organs and in the posterior region; for I have many times frozen the upper and anterior mass of both the hemispheres, and with the one exception stated above, and where possibly I was deceived, I have not, either during freezing or during the stage of reaction, made out the intermittent phenomenon.

On the Permanency of the Symptom.

In children the symptom of intermittency of the pulse may pass away with growth and increase of strength; in adults, when the symptom is once established, it never, I believe, goes away entirely. It may be absent for long periods when the general health is good, but it returns on every occasion of depression of power, and is very easily induced by agencies which act deleteriously on the brain. Excessive venereal gratification, excessive smoking, deficiency of sleep, and dissipation act powerfully in increasing the evil. In persons at or past middle age the symptom once fully developed continues persistently, and often to extreme old age. A patient of mine who died at 86 told me he had been discovered to have an intermittent pulse when he was 42 years old, and that he had never failed to exhibit the phenomenon since that time.

On the Significance of the Symptom.

In itself, when it is not present in an exaggerated degree, intermittency of the pulse is less dangerous than it seems. It does not, as might be feared, carry with it the necessary idea of sudden dissolution from heart disease, for, as I have elsewhere shown, the heart is the regulator, not the prime mover, of the circulation. The harmlessness of the symptom in its moderate development is best shown by the facts of its common occurrence after middle age, and the long duration of life in many of those who present it.

At the same time the symptom has its significance. Occurring in infancy, it is an important indication of the existence of serious nervous derangement. Occurring in adults, it has the same meaning, and tells the story of commencing premature decay. Occurring suddenly after any great event which has told upon the mind, it may be a sign of vast import. My own experience connects it as the first physical indication of derangement in three cases of disorder of mind in which suicide was attempted, in two successfully. Further, it becomes an embarrassing sign in the presence of other diseases, especially in low fever, and, indeed, in all conditions where there is diminished condensation of force in the nervous centres, where force is either not laid up or is poured out too freely.

In persons advanced in life and in persons prematurely old intermittency is often the herald of symptoms of cerebral congestion. In these examples the patient has often a singular preconception of impending danger: he is seized without reason with what I once heard a patient call "panic." These are cases of very serious import.

Lastly, the symptom may be increased until it lapses into veritable and fatal disorder, evidently in such case from continuance of morbid change in nerve matter. In the large majority of patients there is an unconsciousness of the intermittency. You will listen to the heart, you will hear the phenomenon distinctly, and you will ask the patient, at the moment, whether he was conscious of anything peculiar, and he will tell you he was not. In such instances the intermittency does not cover more than what would be one or at most two normal periods of contraction, and there is a long interval before the return of the intermittency. But when the intermittency covers a period equal to five normal strokes, or when it is repeated in shorter periods, several times in the minute, then the patient is painfully, often fearfully, conscious of the fact. Then breathing becomes irregular, then there is difficulty in keeping the recumbent posture, then there is sleepless agitation, terrible mental depression, a constant dread of death, sometimes with a singular longing for that event, and finally death itself, not suddenly, but by a lingering and painful asthenia. These are true cases of what has been poetically called "broken heart."

Concomitant Nervous Symptoms.—Palpitation.

Patients having intermittent pulse are commonly troubled with other symptoms of a nervous character, showing themselves usually through the muscular system. The people call these symptoms "*palpitation*" or fluttering. The symptoms are not uniform in character: at first they are noticed as if proceeding from the stomach and ascending the throat, giving a singularly unpleasant tickling sensation in the back of the throat, with fulness. Exertion after meals is a common apparent cause of this palpitation, which, though comparatively devoid of danger, is still often a disagreeable and even alarming condition to those who have to endure it. After a time other symptoms occur, and are embarrassing. On lying down to sleep there is disturbed action or movement in the chest, with over-action of the heart, so that the action can be heard loudly through the pillow, and this is followed by frequent twitching in the muscles of the limbs, of the lower limbs especially. In most instances of this character the limbs actually move as if under the influence of a galvanic shock, and with the movement, or immediately preceding it, is a painless movement in the chest, as if from a jerking act of the heart itself. During this condition the motion of the heart may be actually intermittent, but the jerk I speak of is distinct from intermittent action. All the time through there is no pain, and I may add that all the time through there is no spasm. In this point of view the paroxysm of palpitation differs from a paroxysm of cardiac apnœa. Physiologically, the motor tracts only of the nervous organism are deranged. After a longer or shorter period sleep comes on: at first perhaps starting and disturbed sleep, but anon quiet, and with the quiet and with placid sleep removal of all the signs of irregular muscular motion.

In persons strongly disposed to the form of palpitation now described, it is remarkable how small a matter will excite a paroxysm in the latter part of the day; late hours, indulgence in strong tea, indulgence in tobacco, too hearty a supper, these all tend to bring on the irregular action and the sleepless disquiet. But that which induces the nervous symptoms most readily is continued cerebral (mental) exertion; this, carried to a late hour of rest, is of necessity provocative of the mischief of which our lecture speaks. Some *amusements* of the evening, even, lead to this disturbance. Chess is a game very bad for a late hour; played earnestly and intelligently, it calls special faculties into undue action at the expense of other faculties; it leaves active faculties at work; it leaves, that is to say, some of the cerebral centres still thinking, and these, like troublesome, noisy companions, are fatal to repose. In a lesser degree, and with irritable persons in as great a degree, late whist is bad. Nay, I know of nothing worse than quarrelsome whist with the stake high. A game of this kind may be ended, but hours will pass before the dissatisfied and quarrelling cerebral organs within the player will arrange terms and settle down. Reading aloud late in the night is equally mischievous.

The worst mischief of all is the practice of carrying to bed the anxieties and annoyances of the labours of the day. I believe that in man more than half the cases of intermittency of heart occur from this one mistaken foolish practice. It is a practice from which success can never follow, for that which must work must sleep, and if it do not sleep diurnally its proper time, it will sleep annually in time to come—*i.e.*, it will die while the rest of the organism lives, and then there will be physical anarchy, disease of the mind's kingdom, one of the great estates defunct, and the balance lost.

Before I close this notice of what is called "*palpitation*," one word more is demanded. The term is nearly invariably applied as referring to the heart—*i.e.*, to tumultuous action of the heart—and, as persons with intermittent pulse are peculiarly subject to palpitation, the two symptoms are frequently confounded. They ought not to be so confounded, for they are in fact distinct. The common symptom of palpitation, as

defined by patients, is not a cardiac symptom, but is due, I believe, to tremulous rapid movement in some of the fibres of the diaphragm. One of the most eminent of living men in general science first pointed out to me the fact that even severe palpitation was not cardiac, although it felt as if it were, because he constantly had palpitation when his pulse was quite steady and slow. I doubted the correctness of his observation, as he was the subject of intermittency of heart. So one day he rode up to me from his club—"Now," said he, "I have unbearable palpitation; you can see it through my clothes, and it makes me feel sick, but it is distinct from the intermittent action of my heart, and from the actions of my heart or pulse altogether, as you will find." His observation was accurate; his heart beat seventy-four times a minute, with intermittent action every twenty-sixth stroke; his pulse tallied, and the motion of the heart was tranquil and entirely distinct from the rapid vehement palpitation. The palpitation was from some muscular action immediately below the heart; it was epigastric, and had no relation to arterial pulsation.

Palpitation felt in the chest, yet not of cardiac origin, is a possible fact, and it is a fact which ought to be universally known by Medical men. If it be not so known, false prognosis, perhaps false diagnosis, may follow.

Points of Practice.

There is, of course, no known specific for intermittent heart, but, whenever the symptom of intermittency is present, there are certain general lines of treatment which should always be enforced by the Physician.

1. In the case of young children, when the intermittency is clear, however infrequent it may be, the utmost care should be taken to avoid every source of mental excitement. A child so circumstanced should, under no pretence and for no purpose, be oppressed with study. He should be subjected to no amusements which powerfully excite the mind; he should at no time be exhausted by physical fatigue; he should be well fed, warmly clothed from head to foot, and, above all things, should be allowed to have abundant sleep. Ten to twelve hours' sleep is not a whit too much. Moreover, such a child should never be put to sleep with stories which excite dreams or cause alarm.

2. In adults equal care should be taken, and, above all things, attempts should be made to remove impressions derived from any untoward event. Change of scene in this way often proves of essential service, while a carefully regulated diet, abstinence from exhausting pleasures, and abstinence from exhausting labour, especially mental labour of one particular kind, should be encouraged. Good sleep is here again the most valuable of remedies. Eight hours of sleep out of the twenty-four are essential—nine hours are still better. Two special points of advice are of vast moment to such persons. It not unfrequently happens that, by accident or by direct information, they learn the fact that their pulse does intermit. Then they begin to feel their own pulse, and become charged with dread of sudden death. As the disorder is of itself cerebral, this watchfulness and fear increase the frequency of the intermittency. With these patients, a word from the Physician timely and firmly spoken is often the best prescription. You assure them on your experience that their malady is not of necessity fatal; you command them not to inquire after the symptom, and if you can succeed in persuading them to your views, which you may honestly try to do with all your influence, you will effect the most marked improvement in their condition. Again, it sometimes happens that patients conscious of the failure of the heart resort to alcoholic stimulants as a means of relief. For a moment, by exalting the cerebral activity, they experience relief from the alcohol, but the depression that follows calls the more rapidly for a return to the supposed remedy, and a factitious benefit leads to a habit which excites structural changes, and, of all things, hastens death.

3. In case of sudden intermittency with symptoms of cerebral congestion, depletive measures are sound. A purgative is essential, and blistering at the back of the neck is always useful. I have seen great advantage in these cases from abstraction of a moderate quantity of blood by the cupping glasses.

4. In the extreme forms of cardiac intermittency, while all the general rules laid down in Nos. 1 and 2 hold good, it becomes often imperatively necessary to subdue cerebral excitement, and to induce cerebral rest. For this latter purpose, opium is the sheet anchor. It must be given freely when it is given, and not too frequently. Small and repeated doses of opium excite, depress, and give no rest. A full dose, equivalent to a grain or even two grains, on the contrary, produces no excitement, but gives sound sleep and that quietude of cerebral circulation which is essential to secure satisfactory relief. I have sometimes, where there was much depression, combined full doses of opium with full doses of quinine, and with marked benefit.

5. Concerning old people who suffer from what may be called chronic intermittency without oppressing symptoms, no special rule requires to be laid down. They are themselves usually too tired of the excitements of life to care for them, and if they are not, then the observance of the general principles applicable to children and adults extends equally to them.

ORIGINAL COMMUNICATIONS.

ON THE

ARTIFICIAL PRODUCTION OF CERTAIN ORGANIC FORMS, AND THE MANNER IN WHICH THEY ARE PRODUCED.

By GEORGE RAINEY, M.R.C.S.,

Lecturer on Microscopical Anatomy and Demonstrator of Anatomy at St. Thomas's Hospital.

(Concluded from p. [illegible])

There is another form which matter entirely inorganic can be made to assume, that may be designated the tubular form. This I will now describe.

The term given to the substances capable of assuming the tubular form is "myeline;" and though these forms have of late attracted considerable attention, no reasonable account has, to my knowledge, been given of the manner in which they are produced.

As the investigation of these singular forms will be simplified by employing for their production materials in which nothing organic has ever entered, and which also in their chemical relations are among the least decomposable of all compounds, I shall confine my account to tubes formed simply of sulphate of baryta.

A process for making these tubules which I have found most easy, consists in introducing into a cell $\frac{1}{8}$ inch or $\frac{1}{4}$ inch in depth, filled with saturated solution of sulphate of soda, some crystals of chloride of barium, and instantly closing the cell with a cover of glass. If, immediately after the application of the cover, the contents of this cell be examined by a lens of 1-inch or $\frac{1}{2}$-inch focus, the commencement of some tubes will be seen jutting out from the crystals, and others in process of formation. And if the examination be made an hour or two later, many tubules will be seen to have ascended from the bottom to the top of the cell, and to have described curves and coils of various degrees of complexity on the under-surface of the cover, as accurately depicted in Fig. 4. The ascent of these tubules, I thought at first, might be caused by the disengagement of air either from the fluid in the cell or from the interstices of the crystals, but such was found not to be the case, as experiments were afterwards made under circumstances where there could neither have been air in the fluid nor in the crystals, with precisely the same result.

Fig. 4.

Fig. 4.—Myeline forms produced by barytic sulphate (sulphate of baryta).

The only cause I could then assign for this fact was, that an elevation of temperature might be occasioned by the sudden formation of sulphate of baryta which takes place in this experiment. Hence, saturated solutions of chloride of barium and sulphate of soda were suddenly mixed together in different quantities and in various proportions, and in every case a thermometer put into the mixture instantly rose fully 4° Fahr.

The further examination of the manner in which these tubules are formed is entirely microscopical.

On carefully noticing the first effect of the solution of sulphate of soda on a crystal of chloride of barium, it was seen that the chloride crystal, more or less completely enveloped by the newly formed sulphate, had lost the sharpness of its edges and angles, showing that a portion of the crystal had undergone solution. Thus the mechanical relation of these parts is that of a saturated solution of choloride of barium contained in an investment of sulphate of baryta, and surrounded by a solution of sulphate of soda. Next a jutting out and a rupture of the solid investment takes place, and the commencement of a tube is formed which increases in length with considerable apparent rapidity. If the crystal from which it proceeds is small, the calibre of the tube itself will soon begin to diminish, and its form will be tapering. (See Fig. 5.) But if the crystal be large, or if a number of crystals aggregated together give origin to it, its calibre will remain the same through nearly its entire length, which, in some cases, is very surprising, but still its extremity will taper. (See Fig. 4.) That these are actually tubes can be determined by examination with the microscope, especially if binocular, of such tubes as may be broken for the purpose. (See Fig. 6.)

Fig. 5.

Fig. 5.—Showing tubular character of the mycline forms of baryta sulphate. Surface more crystalline after long standing.

Fig. 6.

Fig. 6.—Mycline tubes of baryta sulphate, showing crystals from which formed.

(The crystals represented on these tubules are, I believe, sulphate of soda, the solution in which they were formed being more than saturated at a low temperature.) But this fact can be better demonstrated by mixing fine particles of any solid matter with the crystals of chloride of barium—gamboge was employed in these experiments—when, by a careful examination with the microscope of these tubules while in progress of formation, the particles of gamboge can be distinctly seen in their interior passing from one end to the other. The fact is most clear in those tubes which have reached the cover and are prolonging themselves along its surface.

The tubular form of these tubes being shown, and also the nature of their contents—solution of chloride of barium—by the experiment last described, it will not be difficult to show in what manner they become elongated.

These tubules then, being filled with a solution of chloride of barium, furnished by the solution of this salt, which during the whole course of their growth is constantly being supplied to them at their origin, and being open at their opposite extremities, it is evident that at these parts chiefly the fresh sulphate of baryta is formed. Now, if these particles immediately after they are formed are carefully watched, they can be seen to stop at the end of the tube, and to become fixed there, and thus to add to its length. This is, of course, only the ordinary effect of attraction of these particles for one another.

An addition being thus made to a tube, by the force of capillary attraction alone the fluid will be drawn along it, and in this case that direction will be taken in which the fluid was already moving—namely, that in which it had received its first impulse on leaving the reservoir from which it had its supply.

I may notice that all the sulphate of baryta which is formed at the open end of the tube, does not become joined to it, but falls down to the bottom of the cell; also that tubules can be formed by employing sulphate of potash in the place of sulphate of soda, but they are smaller; and, lastly, that if the conditions of this process are reversed, especially if sulphate of potash is employed, no tubules will be produced—that is, if the fluid medium be the chloride of barium, and the solid the crystals of sulphate of soda or crystals of sulphate of potash. This fact is doubtless due to the comparatively sparing solubility of these crystals.

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THE PECULIAR EFFECT OF COLD ON THE CAPILLARY CIRCULATION AND SECRETION OF BILE OF A BOY PROBABLY SYPHILITIC.

By SYDNEY RINGER, M.D.,

Physician to University College Hospital; Assistant Physician to the Children's Hospital; Professor of Therapeutics at University College.

William C., aged 8. This case is singular from the effect cold produced on the capillary circulation of different parts of the surface of the body and on the secretion of bile by the liver. The boy and his brother have been under my care for more than two years. From the history it appears highly probable that the mother contracted syphilis from her husband. For she has had five miscarriages, one of her children was born dead. Two others died soon after birth, one in a few days; the other lived only three weeks (neither of these children had any eruption on their bodies, neither did they sniffle). She has only two children surviving—the two under treatment. The brother to the patient we are now speaking of has for years suffered from epileptic fits, which Dr. Hughlings Jackson considers to be due to syphilitic disease of the brain. Iodide of potassium very considerably lessened the frequency and severity of the fits.

William, the subject of our present remarks, has always been a delicate child. When 15 months old he had an eruption over the whole of his body, which was most abundant on his face. He did not sniffle at this time; but there were some sores around his anus, which, from his mother's account, were possibly mucous tubercles. At the time he was thus afflicted he also suffered with considerable enlargement of the right elbow and the left wrist; both these parts are still rather enlarged, but the movement is quite perfect in them. He was ill, in all, eight months. With the exception of some of the diseases of childhood—measles, scarlatina, chicken-pox—he continued in his usual rather delicate health till two years ago, when his present complaint, the subject of our remarks, first began.

During the last two years, on exposure to cold, the surface of his body assumes a yellow colour. If the cold be great, and the exposure for any time, this yellowness is extremely marked. It is most seen in the skin of his face and in the conjunctiva. It has all the appearance of yellowness of jaundice. As has been said, this yellowness of the face and conjunctiva is brought on by cold, for while he is in bed or by a good warm fire the colour of his skin is natural; but when he gets up to dress, or exposes himself to the cold, in five or ten minutes his face and eyes become discoloured, and if the cold is great the discoloration is very deep. When he again becomes warm by sitting close to a warm fire, the yellowness gradually grows fainter, and in one or two hours is quite gone again. On some occasions the colour remains all day. After his skin has assumed its natural tint the jaundiced colours may be almost immediately produced by a second exposure to cold, so that he may have several returns of it in the day.

He feels the cold very much, and at these times he goes indoors and complains of chilliness. When thus discoloured he feels very poorly, is low-spirited, listless, and complains of

headache; if this latter is bad, he also suffers from sickness and vomiting.

This yellowness of the skin often comes over him between the time of his leaving his bed and his arrival at the breakfast-room. It is occasionally produced by some other causes than cold, although his mother cannot discover what these additional causes are. They are not produced by fright—he has several times been very considerably alarmed, so that he has screamed, and yet no discoloration of his face has followed. Neither has his mother noticed any connexion between discoloration of skin and his meals.

As might be expected from what has been said, they are much less frequent and less intense in the summer, when the weather is warm. In the winter time he never passes a day without an attack, and often has several.

When he is of a yellow colour his urine is of a mahogany colour, or even darker. It is not scanty, but on standing it deposits a thick sediment. When free from this discoloration, his urine is of its natural colour. Every attack of yellowness does not make his water bad; this is so, however, when even the discoloration is great, and is always intensely marked if the attack is accompanied by vomiting, which indicates it was a severe one.

His motions are always of their natural colour; they are never pale or clayey. Warmth by the fire or of the bed always cures the headache and vomiting, and, as we have said, at the same time removes the discoloration. The matter ejected by vomiting is of a greenish-yellow colour.

The cold, moreover, affects him most singularly in other ways. Under its influence the skin becomes very rough, like goose's skin. This is more marked in him than his mother ever noticed in any other children. The roughness is especially noticeable in the skin of his face, but has not been observed on his hands. It immediately disappears when he becomes warm.

While he has been the subject of attacks like those just described—that is, for the last two years—he has been very liable to swellings of his hands and feet, which have much the appearance of chilblains. The feet and toes are most affected. The parts become bluish-black, sometimes almost black; they are very swollen, very tender, and very painful; they feel at these times very cold.

These appearances last a very variable time. They are brought out by cold, and sometimes in a few hours the skin looks quite natural again. The swelling may be very great, the whole foot affected looking almost black, and yet in one or two hours the swelling has quite subsided, the colour has again become natural, and the pain has ceased. Usually tenderness continues for a longer time, and sometimes, after the colour is restored, the tissues may remain swollen for a little time longer. Sometimes the whole foot is affected in this way; more frequently the disease is limited to several of the toes, and if the attack is a severe one, the symptoms may remain for one or two days; on some occasions the skin breaks and leaves a slight sore, which heals in about a week. The swelling in those parts at these times is very great, so that it is impossible for him to put his boots on.

His hands are also similarly affected. The whole hand nearly to the wrist is involved. They swell sometimes to double their size, and are at such times "blue black," and like the feet are tender and painful. The hands usually recover their natural appearance in an hour or so. Such attacks in the hands and feet only occur in winter, and when the weather is very cold. His lips or nose never swell like this, neither do they become at all blue on exposure to cold. For the last few weeks he has had similar attacks in his ears.

These peculiar appearances—that is, both the yellow discoloration of the skin and this erythematous state of the skin—have gradually grown less during the last two years. Thus the attacks are less frequent and less severe. This improvement, however, cannot in any way be connected with the medicinal treatment the boy has been subjected to.

I have often seen him when in the state described, and can fully verify the statements of his mother. The yellowness of the skin has always appeared to be due to jaundice. His urine has not been examined for the colouring matter of the bile. The boy is tall for his age, and grows naturally; he is thin and looks anxious. I forgot to mention that at the time he had the eruption on his skin, he began to squint, which has continued ever since. There is no opacity of either cornea; the pupil is regular in shape and natural in appearance.

His second front teeth are very much crenated at the edges, but are not peculiar in other ways. He has four permanent incisors in the lower jaw, but only two widely separated in the upper. These, however, occupy by their wide separation all the space previously filled by the four milk teeth. As the boy is only 8 years of age, it is very probable he may yet have the two other incisors in his upper jaw. The upper permanent incisor teeth are very large. His heart and lungs are quite natural, and his liver measures in the nipple line from above down two fingers and a half's breadth. His spleen cannot be felt. His abdomen is not enlarged, and there has never been any ascites. The glands of his neck and axilla and groin are not enlarged; those of the groin are occasionally enlarged when his feet are bad. He rarely perspires at all, even on the hottest day; nor is he subject to cramps in any of his extremities. His skin is highly irritable—at least, in this wise: on irritation it flushes up very much, and remains reddened a very long time This his mother has noticed, and I have confirmed her statement. He very easily bruises, even on the slightest fall, but he has never bled at the nose, and if he cuts himself, he does not bleed more than other boys, and the wound heals quickly. He has never had a fit. His skin does not itch when it is discoloured. He soon catches cold, and is not active like other lads, but likes to sit quietly by the fire. He has never had rheumatism.

He has been treated with a variety of medicines, but I have not been able to connect his improvement with the treatment he has received. Under the idea that these phenomena might be due to syphilis, I treated him with three grains of grey powder three times a day. At another time he took one-third of a grain of extract of belladonna, which was increased to half a grain every three hours. He also took cod-liver oil and steel wine.

Remembering the action on the capillary circulation attributed by Dr. Anstie to strychnia, this medicine was also tried.

ON TAPPING WITH THE AID OF SIPHON-POWER.

By W. ROBERTS, M.D., F.R.C.P.,
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(*Concluded from page* 34.)

2. *The Contents of Dropsical Cavities, Cysts, and Abscesses are removed with Greater Completeness.*—This I believe to be a point of importance. By the simple canula it is rarely possible to empty completely a cavity containing fluid. As soon as a certain proportion of the fluid has escaped, the elastic tension of the surrounding parts, which in the first instance acted as an expelling force, ceases to operate, and the flow comes to an end. But the weight of the column of liquid in the elastic tube, acting as a soliciting force, keeps up the flow until the whole is drained off. And the force thus employed is gentle, steady, continuous, like the pressure of the atmosphere, of which, indeed, it is an example. In this respect it has a manifest advantage over the jerking, interrupted action of the syringe applied for the same purpose.

The effect of completely evacuating cysts and chronic abscesses by siphon-power is a subject for future experience; but it is impossible to reflect upon the results obtained in the above-cited cases of single ovarian cysts without thinking that a further trial of the tapping method, thus improved, should be made before resorting to the high risks of extirpation. It is, at least, conceivable that complete evacuation of these cysts, by bringing their parietes into actual contact, may alter capitally the chances of refilling.

3. *The Prevention of the Admission of Air in Tapping the Chest and Chronic Abscesses.*—As the elastic tube is throughout filled with fluid, and its lower end immersed in the contents of the receiving vessel; and as, further, the canula is tightly impacted in the opening through the cutis, the admission of air becomes an impossibility.

4. *The Gradual Withdrawal of the Fluid.*—This may not prove an advantage in every case, but it will prove so, I think, in a considerable number. In thoracentesis it will allow time for the compressed lung to expand and fill up the space left by the escaping fluid. In large chronic abscesses it will also allow time for the slow contraction of the thickened parts around, so as to fill the vacant space. In all cases it will obviate the shock attendant on the sudden removal of the pressure on surrounding organs of a large mass of fluid.

5. *The Operation is rendered Less Formidable.*—The instruments used are smaller; the wound they inflict on the tissues

is trifling; not a drop of blood is shed; not a drop of the evacuated fluid need be spilt on the clothes or person of the patient. It will presently be shown that, with small instruments, no preliminary incision of the skin is required. On the other hand, a longer time is necessary to complete the operation, and a longer attendance on the part of the Medical Practitioner—disadvantages which cannot weigh against the safety and effectiveness of the proceeding. Believing that all or some of these advantages may be obtained by the adoption of the principle of the siphon applied by means of an elastic tube, I proceeded to inquire into certain points of detail as to the rate of flow of different fluids through tubes of fine bore, and into the best form of construction for the apparatus to be employed.

The results of these inquiries, together with some experience of the employment of the method in thoracentesis and tapping of chronic abscesses, will be given in a future communication. (a)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

Paralysis of the Muscular Branches of Ulnar Nerve—Paralysis of Musculo-Spiral Nerve, Cured—Cases of Tumours—Ovariotomy with Successful Result—Tumours Difficult to Diagnose—Two Cases of Malignant Tumours—Cases of Injury to the Head—Compound Fracture of Skull—Simple Fracture of Skull in a Child, Circular Scalp Wound followed by Suppuration within the Skull, Trephined—Two Cases of Syphilitic Disease, under Treatment—Two Cases of Strangulated Hernia.

Under the care of Mr. Solly may be seen two interesting cases of muscular atrophy of the arms. In the first, that of J. S., aged 17, a carpenter dresser, Mr. Cox), there is marked atrophy, altogether confined to the muscular branches of the ulnar nerves; the muscles on the inner and front part of the forearms are wasted to a mere nothing, and the same condition affects the palmar muscles. The hand is thrown back on the wrist by the action of the extensors; nearly all power is lost; and on holding the second phalanges firmly, the tips of the fingers can hardly be moved, showing that the flexor profundus participates in the paralysis. The extensors, however, remain unaffected, and appear freely developed. This state of things is most marked in the right arm, but the left is gradually taking on the same condition. At the same time, however, there is no loss of sensation in the parts supplied by the ulnar nerves, so that it would appear that the disease in this case affects only the muscular branches of the ulnar. There is frequent twitching in the paralysed muscles. There is no evidence of disease along the course of the nerves, and the fact of the sensory branches not being involved, and of the existence of disease on the two sides, would also point to the cause being central. The patient fancies the left leg is weaker than the right, and that this weakness has come on during the last month or two; but there is no affection of the sphincters, and no pain or tenderness is complained of in the course of the spine, neither are any cerebral symptoms manifest. In the dorsal region of the spine, however, there is a marked lateral curvature towards the right side, which appears to be an exaggeration of the usual lateral curvature in right-handed persons; but this was not known to the patient until he was examined in Hospital, neither had he ever suffered pain in this region.

The history of the case shows that the disease commenced in the right arm two years ago, the twitchings apparently preceding the loss of power, and that the left arm was not affected until about three months before admission. No cause can be assigned for the phenomena; his health has always been good, he knows of no injury to account for it, and has never suffered from plumbism. His work as a carpenter has necessitated active use of his arms, but this has not been more than a man in ordinary work is accustomed to; and at the present time his health is excellent, and in other respects he is an active muscular man.

The second case is of a man, J. F., aged 39, a messenger, now in Accident Ward, and also under the care of Mr. Solly (dresser, Mr. Cox). He was admitted September 26, with dropping of the right hand from paralysis of the extensors. He could not grasp or write, but the chief loss of power was in the extensors as just stated, so that both wrist and fingers remained in a flexed position. At the same time there was anæsthesia of the thumb and next two fingers. The account which he gave of it was that six months previously he had sprained his arm from lifting heavy weights, and one morning, on waking, found his index and middle fingers and the outer side of the right arm, nearly as far as the elbow, were numbed. Shortly after this his thumb was similarly affected, and then gradually appeared the paralysis of the two fingers and of all the extensors. As the disease progressed in the right upper extremity, he noticed loss of power and of sensation in the great and two adjacent toes of the right foot, but this affection was of short duration and has not returned.

So that in this case the main affection has been in the distribution of the radiospiral nerve, and forms a close contrast with the last-mentioned case, in which the ulnar nerves were solely involved.

Mr. Solly has treated this patient by using galvanism every other day, and by keeping the hand upon a splint at other times, so as to counteract the flexion of the wrist and fingers, and to aid the action of the extensors. At the same time, the man has been taking strychnine in $\frac{1}{16}$ grain doses, which are now increased to $\frac{1}{12}$. At the present time he is greatly improved—in fact, he may be considered well; he is able to extend his hand and wrist thoroughly; there is no dropping of the hand while at rest; and he has considerable power in that limb. At no time has he had twitching or any muscular spasms, neither has he noticed any abnormal sensation. The anæsthesia has completely disappeared since about four weeks ago. The result, therefore, is most satisfactory.

Mr. Le Gros Clark has within the last few days discharged a patient who had undergone the operation of ovariotomy on November 15, or a little more than three weeks before leaving the Hospital; and a more successful case, considering the difficulties which appeared in the operation itself, cannot be imagined. Without entering fully into the details, which we hope to see recorded at length before long, we may mention that the tumour was of about nine months' duration, and had never been tapped, that it appeared to be composed chiefly of a single cyst, and, from the exquisite thrill which it imparted to the fingers, was expected to contain ordinary thin ovarian fluid. In many of these respects, however, the actual state of the parts differed greatly from what was anticipated. In the first place, although the tumour had never been tapped, the adhesions were very general, firm, and very troublesome. In the next place, the tumour consisted of numerous cysts, though not of equal size, one of them occupying about two-thirds or three-fourths of the whole, and the rest consisting of about twenty smaller ones, varying in size from an apple to a hazel-nut. In this point, therefore, the anticipations were, on the whole, satisfied. The contents of the tumour, however, instead of being fluid, were of so tenacious and semi-solid a character, that one hand could not empty the cyst, but it required both hands to be passed in on opposite sides, and then locked, before the firm colloid could be detached piecemeal.

Mr. Clark was anxious to make use of the ether spray in this case in order to avoid the chance of troublesome sickness after chloroform, but just at the last moment the patient's courage failed, and chloroform was given. She vomited while its administration was going on, but fortunately had no further retching or nausea to complicate matters after return to consciousness. The operation was prolonged owing to the difficulty in the removal of the colloid material, and to the care requisite in separating the cyst from its peritoneal attachments, so that the patient was under chloroform an hour and a half or two hours.

The tumour was connected with the left ovary. A clamp was fixed on the pedicle, and left outside the wound, and a few bleeding points in the peritoneal adhesions were secured by ligature, and returned into the abdomen. There was no tendency to protrusion of the intestines during the operation, and they could be seen lying empty and flaccid when the peritoneum was carefully explored to find a bleeding vessel; and, of course, during this proceeding air entered quite freely into the abdominal cavity.

From the time of operation she does not seem to have had a single bad symptom. There was a very fair reaction, as was evidenced by the temperature and pulse, both of which were registered with great care and frequency by Mr. Mitchell, her dresser. The wound healed well; the sutures were removed on the fourth day, the clamp on the seventh; and although a deep pit remained at first after removal of the clamp, there was hardly a trace of depression at the time of her leaving the Hospital.

Contrasted with this, we may mention that a very remarkable one of a similar character, but in which a natural cure was said to have been effected by opening into the intestines, occurred in the beginning of the present year. We hope to be able to give an account of this, but at present we have not been able to obtain the notes of the case.

While on the subject of tumours we may call attention to some cases of this class now in the Hospital, which present considerable interest.

The first is that of a small cystic tumour of the breast, under the care of Mr. Sydney Jones, in a woman aged 35, married, but having no children. It commenced eight months previously, but without apparent cause, in the upper and outer part of the left breast, and had been increasing rather rapidly lately. It had caused her much pain, of an aching, dragging character, and was very tender to the touch, apparently from frequent handling. To the feel it gave the sensation of a dense, hard, almost cartilaginous growth, well defined and nearly spherical, and about the size of a large marble. In fact, it appeared to be a small, painful adenocele; but Mr. Clark, who also examined it before operation, detected fluctuation, and gave his opinion that it was probably a very tense cyst. This view proved to be perfectly correct, for it turned out to be a small cyst filled with limpid fluid, and its walls were thin, but from its being so much distended it was very difficult to detect any evidence of its true character.

The next is under the care of Mr. Clark, in a man aged 31, an engineer, in whom a tumour of doubtful character affects the jaw. It commenced three months ago, about the angle of the jaw, on the left side, and has increased rather rapidly, but without any pain. The Registrar's notes give the following description of it:—"The tumour is very dense, and hardly elastic, starting from the angle about the insertion of the masseter, and running upwards along the anterior edge of that muscle to the malar prominence of the superior maxillary. It appears even on the surface, does not encroach upon the cavity of the mouth, is not ulcerated on its surface, nor is it painful on pressure in any part. The jaw is firmly closed and cannot be opened, and the neighbouring glands are not affected. The bone is not expanded, and the tumour appears to be external to it." There was no history of blow or caries of teeth, and the man denied ever having had syphilis, but on the right ulna an outgrowth was found, which was apparently periosteal in its nature. A grooved needle was passed into the tumour from inside the cheek, and what was brought away by it proved to be merely inflammatory deposit; but two days after this there was an escape of a quantity of thin, whitish, opaque fluid, which apparently was not pus, but the contents of a cyst. There had been no symptom of feverishness or evidence of suppuration in the cavity up to the present time, but since the evacuation of the fluid he has been able to open the jaws much more freely, the size and character of the tumour being sensibly diminished.

The absence of pain and of any history of blow or of diseased stumps negatived the idea of its being a case of necrosis, while the presence of a periosteal node on the ulna rather tended to favour the idea of its being some periosteal deposit; but then again the absence of pain was contradictory. The escape of a quantity of apparently non-purulent fluid, however, after the puncture makes its nature less equivocal, and it would seem to be a cyst developed external to the bone, and surrounded by a quantity of dense inflammatory deposit.

Another case which may be put side by side with these as simulating a tumour-growth is under the care of Mr. Sydney Jones. An old woman, aged 63, was admitted with "a small circular sore on the cheek, about the size of a shilling, with glazed base and raised edges. Its circumference was exceedingly hard and well defined towards the sore, but merged gradually into the healthy skin, which was puckered up in a radiating manner from the contraction of the sore. The deep tissues were not involved, and the glands not enlarged." In its general characters, in fact, it resembled an epithelioma, but its history was peculiar. It seems that two years ago she burnt her cheek with a hot iron, and the wound slowly healed; but a small pimple appeared on the spot, and its head was picked off. It scabbed over, and increased in size, and had never healed, but had very slowly become what it now was. A small piece was examined microscopically, and gave no evidence of an epithelial growth, and on November 8 Mr. Jones carefully dissected it out. It was found to dip in very deeply, close to the mucous membrane of the mouth; and at the present time the wound has nearly healed, but there is no appearance of any return in the scar.

There is a patient also under the care of Mr. Jones in whom a large chimneysweep's cancer of the scrotum existed, together with enlargement and apparent involvement of the inguinal glands. The tumour was removed November 6, and a large number of what appeared to be affected glands carefully dissected out; but in these latter no trace of epithelial growth could be detected by the microscope. There appears now, however, to be a return of the disease in the groin.

Mr. Nunn, at a recent meeting of the Pathological Society, mentioned that he had noticed a marked freckling of the skin in cases of epithelioma, but in this instance nothing of the kind was visible, nor was there any undue amount of pigment deposited in the skin in any part of the body apparently.

A poor little fellow was admitted on December 6, under Mr. Simon, with a large encephaloid tumour of the right testicle, nearly twice the size of an ordinary orange. This had burst through the skin and had bled profusely just before admission, so profusely indeed that he did not rally from the effect of it, but died four days after coming into Hospital. This tumour had existed two years, but had never given the child any pain, and hardly any inconvenience. His mother said he was always stout and had a good colour, and played about with other children as if nothing were the matter with him, and on admission he seemed well-formed and well-nourished—certainly not in the least emaciated. At the post-mortem examination several large masses of soft cancer were discovered in the roots of the lungs, but these had apparently given rise to no definite symptoms during life. The testicle and inguinal glands were also affected with the same disease. This case is interesting as showing the toleration of so large an amount of usually exhaustive disease in a child, without any material impairment of health or spirits.

There are three or four cases of head injury which present features of considerable interest. The first is that of E. W., a railway porter, aged 29, under the care of Mr. Simon (dresser, Mr. Harris). He was admitted October 2, having been knocked down by a railway engine, and in a large wound over the left side of the frontal bone a fracture was detected. This was of considerable extent apparently, and one edge of the fracture was slightly depressed below that of the other. Beyond headache, there was no symptom referable to the brain. There was no bleeding from the ear, but both before and after admission he had vomited a rather large quantity of blood, and everything which was given him at first was rejected by the stomach. After admission he gradually became excessively feverish, and a good deal of suppuration took place behind the ear which had been injured by the accident, and on October 11, nine days after admission, he had an attack of erysipelas, but without much delirium. At no time were any head symptoms very marked, and he is now convalescent after the separation of a piece of necrosed bone, about the size of a thumb nail, from the position of the fracture.

Another case of fracture of the skull, without external wound but with very severe concussion, was admitted December 14, under Mr. Solly (dresser, Mr. Rosser). G. L., aged 51, a labourer, was at work under some scaffolding, and a piece of wood, weighing about twenty or thirty pounds, fell from a height of about thirty feet on to the top of his head. He was immediately stunned, and on his admission into Hospital was unconscious, the surface cold, the right pupil rather contracted, and his breathing of rather a blowing character. There was a puffy swelling over each side of the head, near the vertex, but without bruise, and there was no evidence of fracture from the manipulation of the skull, and no wound was present. There was no bleeding from the ear, nose, or into the orbit, and although there was a little from the mouth the laceration of the tongue was quite sufficient to account for it. He never recovered consciousness, but became more and more insensible, and his pupils were dilated and inactive, but equal ten minutes after admission. Before death the right pupil became contracted, but neither acted under the stimulus of light; the chest became filled with serous, frothy fluid, and he died at midday December 15, twenty-five hours after admission. Reactionary fever had set in, and the temperature,

which half an hour after the receipt of the injury was down to 95·2° Fahr., fell to 94·9° in three hours, and then gradually rose to 104·8° shortly before death. The pulse remained about 40 per minute for the first three hours, and then gradually rose to 120 before death.

At the post-mortem examination the injury proved to be a very extensive fracture, starred at the vertex and extending laterally on each side into the base, making an almost complete circular fracture, only wanting about three-quarters of an inch to complete the circle. The brain was also severely bruised on both sides, and a layer of blood was found covering the brain above, and lying more especially under the region of the site of the puffiness on each side of the vertex, in which places the encephalon itself was injured.

From the post-mortem appearances it would seem that the blow was received almost directly on the vertex, at which place the starred fracture existed, and yet the bruising of the brain and the puffiness of the scalp were found on each side of this—a fact which is perhaps to be explained by the bending over of the piece of wood by its elasticity, for it was several feet long.

The next case is that of S. R., aged 39, a married woman, admitted November 17, under the care of Mr. Simon (dresser, Mr. Bell). In the absence of Mr. Simon, this case came under the care of Mr. Sydney Jones. She came in drunk, with a large scalp wound over the frontal bone, and the periosteum was freely separated, but no fracture was detected, and none existed, as was subsequently proved. She progressed very well for the first three weeks, but at the end of that time, after gradually increasing headache, she became delirious and feverish, and puffiness of the scalp was detected. This was laid open freely, and pus evacuated, but very little relief was afforded, and the head symptoms increased. The bone remained bared in the wound, and she became insensible, the temperature rising to 104·6°.

On December 6 Mr. Sydney Jones trephined the skull in the frontal bone where it lay exposed in the wound, and pus immediately escaped from between the dura mater and the skull. The dura mater, however, had sloughed, and through it there first welled up a large quantity of foul clear serum, and then followed a large amount of lymph-like fœtid stuff, which appeared like masses of half-broken-down pus, but which proved, on a microscopic examination made by Mr. Wagstaffe, to be disintegrated brain matter.

After operation she became rather more conscious, but could not articulate, though she appeared able to understand when told to hold up her hand. She improved until the next day, when shiverings, which had previously occurred, appeared again, and the temperature rose to 105·25° Fahr. These rigors recurred frequently; and after a fall in temperature to 98·2° at 11 a.m. on the 8th, two days after operation, the thermometer rose to 105·2° gradually before her death on the 9th, three days after the trephining. During the last two days she was completely insensible.

At the post-mortem examination the condition of the brain was just as had been expected; the anterior lobe on the left side was excavated and broken down, but the disease had not extended laterally along the meninges to any extent, and there was no fracture in the skull. Numerous pyæmic deposits were found in the lungs.

In this case there appeared to have been some laceration of the brain at the time of injury, though probably not of any extent, and this had broken down, and suppuration had occurred between the dura mater and skull at the same time that the disintegrating process was going on in the brain, about three weeks after the primary injury. The case ran a typical course—blow with scalp wound and stripping of periosteum, headache and feverishness after the expiration of three weeks, puffiness of scalp, denudation of bone, suppuration external to dura mater, and disintegration of brain, trephining and partial relief, with fatal termination and pyæmia.

Two cases of suprarenal disease are now to be seen in the Medical wards of this Hospital—one a marked case, and in the last stage of the disease, the other much less advanced.

The first is under the care of Dr. Bristowe, in Edward's Ward. He is a boy, about 15 years of age, and the account which he gives is that last Christmas (1866) he fell and injured the lower part of his back rather severely. He was always fair in colour before, but almost directly after the accident he noticed the bronzing of the skin, and this discoloration has increased in intensity. His appetite had remained good, but he was very frequently sick after taking food. At the time of admission—early in October—he was not at all emaciated, had occasional sickness, was very weak, but had no cough or any evidence of tubercle in the lungs. The bronzing of the skin was marked, but was general, and not in patches, though the abdomen and chest were rather more tinged than the rest of the body. At the same time, there was some abdominal tenderness over the epigastrium, and some pain in the region of the sacrum. The symptoms have gradually increased; the vomiting has become more frequent; emaciation has taken place; the general weakness has increased, and he has suffered severely from paroxysmal headaches, which are now more frequent. His weight soon after admission was 7 st. 10 lb., and now has fallen to 6 st. 9 lb. The discoloration has become much deeper, so that now he is of a deep copper colour, and he is so weak that he cannot sit up during the day, and it is not expected that he will last much longer.

The other case is not so marked in character, but little doubt exists as to its true nature. F. L. was admitted October 25, under the care of Dr. Goolden. We are indebted to the kindness of Dr. Hague, the Medical Registrar, for the substance of the following notes of the case:—The patient is 19 years of age, and occupied as a clerk. For the last twelve months he has been sick after his meals, and ever since the commencement of his symptoms he has been bronzed in colour; and during the same time he has been losing flesh. At the time of admission he was considerably emaciated, and the skin of a decidedly bronzed hue, which coloration is most marked on the trunk, especially at the site of a blister over the epigastrium applied since the commencement of the disease. There was tenderness of the epigastrium and right hypochondrium; the appetite was good, bowels rather confined, the vomiting consisting of crude food.

The boy remained in the same condition for two months with little alteration, but lately he seems to have been improving. He became rather less bronzed, had less sickness, and was improved in appearance so much that he left the Hospital a few weeks ago, but has since returned with his symptoms aggravated.

We may finish this report with the mention of a case of severe strangulated hernia, operated on by Mr. Sydney Jones. Charles B., aged 26, was admitted December 7, with constitutional symptoms of strangulation of about twenty-four hours' standing, commencing with sickness and severe abdominal pain, but the tumour itself was of a very equivocal character. It was within the external ring, was very hard and ill-defined, and rather tender, but the cord below was more tender on being manipulated, and the testicle itself was rather tender also, and no history was obtainable of the previous existence of a hernia; so that it was a question whether the tumour were not an enlarged and inflamed gland, or that combined with a strangulated hernia—the suddenness of the symptoms, and their nature, pointing more to the latter conclusion. An operation was performed on December 7, and the sac of a congenital hernia was laid open, and inside this was a large knuckle of intestine acutely congested and almost black, but not gangrenous. This was lying in the inguinal canal, and had not passed the external ring, so that it really formed a bubonocele—a rather singular condition for a congenital hernia. This was released by division of the stricture at the neck of the sac, and then it was discovered that a thick-walled pouch lay behind the hernia, and this pouch was a prolongation from the peritoneal cavity—in fact, was another hernial sac, not, however, now containing intestine. The man died two days after from acute peritonitis, and then it was seen that the view taken of the case was correct, and that two hernial sacs had existed on the same side, both of them oblique inguinal hernia, but the congenital alone strangulated.

In the same week Mr. Jones operated on an old woman, in whom a femoral hernia had been strangulated four days, and the intestine was found to have sloughed. An artificial anus was formed, but she sank rapidly, and died two days after operation.

The Proportion of Fibrin in Blood.—Some interesting experiments have recently been carried out by Herr Mayer, of Worms, who has recently reported the result of his observations to the Academy of Sciences at Vienna. He procured fresh blood by means of a canula from the carotid artery of a dog, and extracted its fibrin by various methods. The analyses gave such discrepant figures that Herr Mayer's most important conclusion is that we certainly do not yet know what is the normal proportion of fibrin.

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Medical Times and Gazette.

SATURDAY, JANUARY 18, 1868.

THE HEALTH OF CROYDON.

Exception has been taken to a statement made in our impression of the 4th inst., as we believed on reliable authority, to the effect that there had been of late years an increase in the death-rate of Croydon from 17 to 24 per 1000; we have therefore made further inquiries, and the results, if not decisive upon the point in dispute, are full of interest; they tend to show that the difference between the local authorities and ourselves is one of estimate rather than fact.

First of all, it must be remembered that in speaking of "Croydon" there is a possible source of confusion as regards definition, and to make this perfectly clear we subjoin the enumerated population in 1851 and 1861, the annual rate of increase per cent. during that period, and the estimated population in 1867, of Croydon under each of its four local distinctions:—

	Enumerated population.		Annual rate of increase per cent.	Estimated population in 1867.
	1851.	1861.		
1 Croydon, *Registration District* .	31,888	46,474	3·84	58,253
2. Croydon, *Registration Subdistrict*	23,075	37,093	4·86	49,315
3. Croydon, *Parish*	20,343	30,240	4·04	38,361
4. Croydon, *Town*	10,260	20,325	7·08	30,631

Here be it observed that the Croydon Registration *District*, No. 46 in the Registrar-General's list, includes the subdistricts of Croydon and Mitcham; that the Registration *Subdistrict* of Croydon includes the *Parish* of Croydon and something more; and, lastly, that the Parish includes the *Town*. It was relative to the *Registration District* that we quoted the increase in the mortality; but as this includes a considerable area of rural district, and as we have no desire to use statistics in any way that may be considered unfair, we subjoin such facts as we have been able to obtain relative to the *Subdistrict*, which is the smallest subdivision given in the Registrar-General's returns—

Croydon (*Subdistrict*).

Years.	Deaths.	Estimated Population.	Death-rate.
1851-60 .	573·1 (annual)	30,084 (mean)	19·0 per 1000
1861 . .	647	37,093	17·4 ,,
1862 . .	707	38,890	18·1 ,,
1863 . .	860	40,790	21·1 ,,
1864 . .	936	42,770	22·0 ,,
1865 . .	1032	44,849	23·0 ,,
1866 . .	1061	47,030	22·6 ,,
1867 . .	1032	49,315	20·9 ,,

So far, then, as the subdistrict of "Croydon" is concerned, the death registers, if they are trustworthy, prove that there was a rise in the mortality from 17 per 1000 in 1861 to 23 per 1000 in 1865, with a subsequent decline to 21 per 1000 in the year 1867 just ended.

But it may be said that it is not fair to speak of "Croydon" in so comprehensive a sense, and that we should either take the *parish*, or, more exactly still, the *town*, as supplying the proper definition. We regret that we have not the necessary *matériel* wherewith to meet such an objection, the official records not being at our disposal: the local authorities have the means in their own hands for showing what the mortality has been in each year of the last decade, either in the *town* or in the *parish*, and we hope they will see the desirability of supplying so interesting an item of information. According to Dr. Buchanan, the parish is coextensive with the district of the Local Board of Health, and the statistics of his sanitary inquiry for the Privy Council refer to the *parish* only, wherein the death rate is stated by him to have been 23·7 per 1000 in the six years 1845-50, and 19 per 1000 in the years 1857-64; the data on which this calculation is made are, unfortunately, not given by Dr. Buchanan. The practice of grouping years in a comparison of death-rates is open to some objection, and we confess to a desire to see how the yearly mortality since 1861 in the *parish* would compare with that given above for the *subdistrict*.

That the *district* of Croydon has experienced an increased rate of mortality within the last seven years is an undoubted fact, and that this has resulted more or less from epidemic disease is also evident from the following statement:—

Deaths in the Registration District of Croydon.

Years.	All causes.	Measles.	Scarlatina	Hooping-cough.	Diarrhœa.	Typhus	Phthisis
1856 .	654	15	12	21	17	20	75
1857 .	652	2	8	18	29	29	71
1858 .	756	30	50	15	14	28	89
1859 .	786	9	43	25	49	15	98
1860 .	775	13	17	23	13	14	81
1861 .	810	9	7	15	35	17	93
1862 .	887	22	42	26	29	36	81
1863 .	1065	58	87	32	17	25	86
1864 .	1128	14	41	52	61	55	119
1865 .	1217	29	47	28	64	68	105
1866 .	1328	40	25	71	42	70	130

What proportion of these diseases belongs either to the town or parish of Croydon we are unable to determine, but it is important that it should be known, so that those who are in the habit of referring to Croydon as a model for other towns in respect of its sanitary arrangements may have an answer for all questioners. Of course, our deductions throughout rest on the assumption that the population has increased year by year since 1861 at the same rate as it did between the census periods of 1851 and 1861. In the absence of any direct official statement to the contrary, this is the only legitimate assumption that is open to us, and we venture to think that, looking at the very rapid growth prior to 1861, which is taken as the basis of calculation, we have made a very liberal allowance.

The Clerk to the Local Board of Croydon calls our attention to the following extract from page 26 of the Registrar-General's Quarterly Return for October last:—

"Croydon; *Croydon.*—Births, 539; deaths, 231. The health of the district has been very good; the mortality (calculated upon a population of 59,000) is exactly 16 per 1000; in the parish of Croydon (the whole parish) it is 15·20 per 1000. The health of the whole district at the present time is exceedingly gratifying."

Now, this is a note appended by the registrar of the subdistrict of Croydon to his return of births and deaths, and is in no sense a statement of the Registrar-General. The 231 deaths occurred in the subdistrict Croydon. Out of what population, may we ask? An annual rate of mortality of 16 per 1000 would, no doubt, result from applying a population of 59,000 as the divisor to the 231 deaths; but can it be seriously argued that the population of Croydon subdistrict has increased at such an enormous rate as this would imply?

*

In his quarterly return for 1866, the registrar estimated the population of his subdistrict at 55,000; nine months afterwards the estimate rises to 59,000—*an increase of four thousand persons in less than a year!* This illustrates the difficulty which besets all statistics of mortality, and furnishes another proof of the necessity for a quinquennial census.

The following paragraph embodies the concluding observations of Dr. Buchanan on the health of Croydon parish:—

"The connexion between the improvements in Croydon and the better state of the public health since the completion of the works appears, then, to be established as much by occasional failures as by general success. But another element must not be lost sight of in this consideration. Owing to the rapid increase of the town by the residence in it of well-to-do Londoners, the poor, among whom there is always a larger mortality than among the rich, have of late years constituted a smaller proportion of the town than twenty years ago. While assigning all due weight to this fact, it must be stated that typhoid fever, at any rate, has made no such distinction of classes, and that, in its recent exceptional appearances at Croydon, the good houses have, perhaps, been attacked even more than the poor ones, doubtless through the better houses having more generally inside water-closets."

When we expressed the query, whether the supposed increase of mortality were due to "misuse of sanitary measures," we referred entirely to the water-closet drainage system, by which too often an inhabited house is invaded by a reflux of sewer gases with typhoid fever in their train. This part of the allegation seems, unhappily, to be confirmed beyond dispute. At the same time, we believe the Croydon people to have acted under the best attainable advice, and with the best intentions and much self-sacrifice. If the system and its results are not yet perfect, they will doubtless try to make [illegible].

THE SEWAGE QUESTION.

By a certain class of moral philosophers the present age is declared to be sceptical, and generally heterodox in regard to principles and creeds which, having been acquiesced in for a length of time, appear to their champions as invested with an authority almost sacred in its character. We cannot join in this condemnation of what we recognise rather as an indication of increased intellectual vigour than of any falling off in the respect due to whatever is right and true and good. Instead of blind unreasoning acceptance, people now search out reasons for the faiths that they have held; and this spirit of inquiry is, we think, a hopeful sign that can only by extremest misdirection lead astray.

In secular affairs we have lately had a notable example of the kind of spirit abroad in the sudden prominence which the question of what is the best mode of disposing of the excremental products of communities has lately acquired. For to the advocates of the water-closet system it is rank heresy to suggest a possibility that they have not yet solved the problem—they will not admit a doubt of the absolute superiority of their mode of sewage-disposal, and they evidently hold fast to the definition that orthodoxy in this matter "is their doxy," heterodoxy being "everybody else's doxy."

In referring to the interesting discussion which was lately held at a meeting of the London Health Officers on the comparative advantages of the dry-earth and water-closet systems, we do not propose to go at length into the whole question, but merely to touch upon certain of its more prominent features. And first, on the broad ground of their relative merits, let us state very briefly what is our view.

We cannot, then, for a moment admit the possibility of the reversal of the public verdict in favour of water-closets in places where, as in London, immense sums of money have been expended in the construction of sewers and drains, and in the application of water sufficient in quantity not only to remove from the houses all solid or fluid excretions, but to scour and cleanse the channels which receive the accumulated filth, and convey it to its destination, wherever that may be. This we take for granted; and while we give all honour to Dr. Hawksley for the earnest practical zeal he has manifested in elaborating his scheme for putting the dry-earth system in force all over this huge metropolis, we cannot but regard its adoption as the wildest of improbabilities. But in saying this we are not losing sight of the fact that after years of labour and heavy cost the metropolitan drainage system is still susceptible of considerable improvement—the disposal of the enormous volume of sewage itself, the ventilation of the sewers, and the defective water-closet accommodation among the poor, to wit. In other large cities where provision has already been made for the water-closet system, the ratepayers will scarcely be induced to incur the expense necessary to subvert their present arrangements. It is in most cases extremely difficult to get persons to undo what it has cost them much trouble and money to accomplish. Given a great number of people massed together on a small area, an efficient sewerage in conjunction with a good force of water, sewer ventilation, a good natural fall, proper arrangements for applying the sewage immediately to the soil, and there the water-closet offers the readiest and best means for getting rid of excretal produce.

Now let any one look down the long list of English towns, and, after picking out those which answer to the description just given, it will be found that there is a residue by no means inconsiderable in which the cesspool system is in full force, the water supply not over-abundant, the site low, and only surface drains existing. In such towns, especially those in agricultural districts, there is surely a fair field for the dry earth system. Again, in nine-tenths of the villages, hamlets, and isolated dwellings of the country, where the sanitary arrangements are of the most objectionable kind, the invention of the Rev. Mr. Moule offers a ready, cheap, and entirely effective solution of the excremental problem. And we firmly believe that it is capable of diminishing to a very large extent the unhealthy influences which now so frequently counterbalance the natural advantages of the segregation of our rural populations.

The water-closet and dry earth systems have each their advantages and drawbacks. They cannot legitimately be brought into rivalry, for they are applicable under conditions which have more elements of contrast than of concord.

One of the objections commonly alleged against the water-closet system is that, while, so long as the closet acts properly and the water supply is abundant, no inconvenience ever arises from its use, yet with the slightest derangement it immediately becomes a source of danger to the health of the inmates of the house wherein it is placed. We all know, of course, that, supposing the existence of deleterious gases in the sewers, the only obstacle to the entrance of these gases by means of the closet communication into a house is the thin barrier of water which should always be maintained in the bend of the soil pipe and in the pan. Well, the popular belief is that it is by no means an uncommon thing for such derangements of closets to happen as allow of the escape of sewer gas into houses; and further, that much sickness, if not death, has resulted from this cause. And this popular view was expressed in discussion at the Health Officers' meeting as affording a reason why the dry earth system might be worth consideration even for a large town. But Dr. Thudichum, whose ability and knowledge ought to give weight to his views, took exception to the statement that water-closets were injurious to health, and urged that there was absolutely no proof whatever of any outbreak of disease having resulted from sewer gases. He referred to the investigations of Dr. Buchanan as settling beyond dispute the advantages of the sewerage and water-closet system, and he contended that if the Health Officers were of opinion that injury to health arose from the diffusion

of sewer gases, it was their duty at once to appoint a committee to collect practical evidence of the fact.

Now, there is little need to collect evidence beyond what already exists as to the baneful effects of sewer emanations. In referring to Dr. Buchanan's report to the Privy Council on the effect of sanitary works, Dr. Thudichum indicated a Gamaliel at whose feet we are well content to sit for instruction in this matter. At pages 43-46, Dr. Buchanan discusses the causes which have led to a general reduction in the death-rate from typhoid fever in certain towns where works of drainage and water-supply have been carried out, and he gives the following instances of outbreaks of typhoid resulting from sewer gases. At Worthing, "the defect of the outfall arrangement was most serious; and, in the absence of other exits, sewer gases had demonstrably been forced into houses, and outbreaks of typhoid had occurred as the demonstrable result thereof." At Chelmsford, where there has been no decrease of typhoid, "it is at critical times left for a very easily occurring stoppage in a rain-water pipe to determine whether or not sewer gases shall be forced up through the inch or two of water that is provided to exclude them in the ordinary sink and closet." At Morpeth, "occasional outbreaks of typhoid had followed times of flood when the outfall sewer had been under water." But the most remarkable case is that of Croydon, "where, in 1853, a memorable outburst of fever coincided with a proved delivery of sewer gas into houses; and, although great pains have since been taken, by ventilating the sewers, to remove this risk, a recent outbreak of typhoid fever (1866) has occurred, with accidents almost identical with those of Worthing, sewer gases having been heard noisily forced through the traps of inside water-closets a few days before inmates of the house were stricken down with fever"—this, by the way, happened in the house of a Medical man. The Health Officers may fairly leave the two Privy Council Assistants to settle this point between themselves, without taking up an independent inquiry on their own account.

THE WEEK.

TOPICS OF THE DAY.

The offer of a prize of £100 by a lady, a member of the Ladies' Sanitary Association, for the best essay on the "Value of, and Dangers attending on, Vaccination," has been, we are informed, the occasion of very vigorous competition. No less than fifty-three essays on the subject were forwarded to the Secretary of the Association. The prize has been awarded to an essay bearing the motto "Is this Truth Doubtful?" the writer of which turns out to be Dr. Ballard, the indefatigable Medical Officer of Health for Islington. Dr. B. W. Richardson, Mr. J. F. Marson, of the Small-pox Hospital, and Dr. Francis C. Webb were the adjudicators. We understand that several of the competing essays were considered by the referees to possess a very high degree of merit, and that in the one selected for the prize may be expected a thoroughly exhaustive treatise on the subject. We congratulate Dr. Ballard on his success—a success, however, at which no one who knows him will be surprised. The Ladies' Sanitary Association are also to be congratulated on the prospect of adding a standard work to the Medical literature of Europe.

The necessity for providing suitable asylums for the insane of the middle class continues to occupy public attention—a euphuism for the columns of the daily papers. We noticed with approbation Dr. Ellis's scheme of building a separate asylum for the purpose in the neighbourhood of London. A writer who signs himself M.D. Cantab., and who dates from Hayward's-heath, believes that Bethlehem and St. Luke's might amply meet the want if the large revenues of the former Hospital were differently managed, applied to the maintenance of incurable patients, and supplemented by the contributions of middle-class patients, and if the public would support with more generosity St. Luke's. The Treasurer of St. Luke's, Mr. Shaw Lefevre, entertains a similar opinion. If, however, these foundations are to be used for the middle classes, new Hospitals must be built out of London. In spite of Mr. Shaw Lefevre's admiration for the wards of St. Luke's—Old-street, E.C., is one of the last places we should choose wherein to treat a deranged patient.

We are glad to notice that the old Magdalen Hospital in the Blackfriars-road is to be removed to Streatham.

The coronership of Western Middlesex, although not a very lucrative office, is likely to be sharply contested. The candidates, as is ordinarily the case, represent Medicine and law. We regret to say that the forces of the former are still in a state of division. In addition to the list of candidates *in esse* or *in posse* which we published last week, an attempt has been made to induce Dr. Richardson to allow himself to be nominated for the appointment. All who are interested in the progress of science will be glad to hear that he has declined to become a candidate. It will be generally felt that the Coroner's duties would have been incompatible with the scientific and Professional career which Dr. Richardson is so successfully pursuing. Of the other candidates, Dr. Hardwicke, the deputy Coroner for Central Middlesex, will undoubtedly receive a large amount of support from our Profession. Dr. Whitmore, Medical Officer of Health for St. Marylebone, has, we hear, retired from the contest, although his committee included the names of Sir Thomas Watson, Bart.; Sir William Fergusson, Bart.; Sir Henry Thompson; Drs. Jenner, Burrows, Quain, Walshe, Murchison, and Messrs. Erasmus Wilson and Nunn. Mr. Holt Dunn has evinced his high Professional feeling by resigning in favour of Dr. Hardwicke. Mr. George Brown, of Kensal-green, and Dr. Diplock, of Oakley-square, Chelsea, are still in the field. The lawyers are Mr. Hand, of New-inn, deputy to the late coroner, and Mr. Isaacson, solicitor, of St. Clement Danes. Even the present number of Medical candidates makes the success of any one almost an impossibility. We do hope that, before it is too late, the force which our Profession can bring into the field will be united by the retirement of all except one Medical candidate. The salary attached to the appointment, we believe, is but little over £600 a year, and when all expenses are paid this is diminished to little more than £350.

Dr. Richardson's lecture delivered on Tuesday last was signalised by a most remarkable and interesting experiment which establishes a new physiological fact of the highest interest. Dr. Richardson informed his audience that he had received a communication from Dr. Weir Mitchell, of Philadelphia, to the effect that it was not only possible to produce anæsthesia by freezing the brain, but also that anæsthetic sleep took place during reaction from cold, if the process of thawing were rapidly induced. Dr. Richardson confirmed this last most interesting fact. He produced anæsthesia in a pigeon by freezing the brain; at the conclusion of the experiment the animal woke up, walked about, and tried to fly. Dr. Richardson then applied warmth of 96° to the head, when anæsthesia as profound as before immediately supervened. The first painless sleep was that of anæmia—the second that of congestion. At the same lecture Dr. Richardson produced a new anæsthetic, Methylal $C_3H_8O_2$. The boiling-point of this fluid is 108°, its specific gravity ·855. Its vapour density is 38, that of hydrogen being 1. In the last respect it approaches closely to ether, the vapour density of which is 37, that of bichloride of methylene being 42, and that of chloroform 59. Methylal also resembles ether in the fact that it darkens blood. A large pigeon was narcotised by this agent in four minutes. The sleep was very perfect, there were no convulsions, and the animal made a good recovery. Methylal, however, offers no advantages over bichloride of methylene, whilst, from its rapid evaporation, it would be of less value in actual practice than chloroform. Moreover, it is not so pleasant as either of the two last-

mentioned agents. Dr. Richardson laid down the axiom that all substances which are true anæsthetics, whilst they must possess certain physical properties in regard to boiling-point and vapour density, in addition must have stability of constitution. This stability is found mainly amongst the hydrides, oxides, and chlorides. Iodides, acetates, and formiates are less stable—a fact which he illustrated by the acetate and formiate of methyl. Unstable substances decompose when inhaled, and produce a different series of phenomena, ending in death. These observations seem to point to a new principle in the science of therapeutics. Remedial agents may be divided into two classes—those which, like the true anæsthetic, are unchangeable, and in their integrity influence the organism; and those which, when taken into the body, are influenced and decomposed by the animal chemistry. In conclusion, Dr. Richardson stated that he entertained an increasing confidence in bichloride of methylene, and that, as he was informed it could now be manufactured at one-half the original cost, he hoped that it would come into more general use as an anæsthetic. We should add, that in noticing some labours of Dr. Harley, the lecturer congratulated the Profession very warmly that so good a worker had recovered from his severe indisposition, and was in the ranks again—an observation which was received by the audience with hearty applause.

A correspondent draws our attention to the report of an inquest in the *Manchester City News* of December 28, 1867, whence it appears that it has been the custom of a Medical man residing in that city to sign blank certificates of death for the use of a prescribing chemist and druggist, who adds his own signature before that of the Medical man, together with the word *pro*—thus, J. B. *pro* C. M.—and furnishes them to the friends of his customers who die whilst taking his medicine. Three certificates were usually left with the chemist, who paid his Medical employé £12 per annum for "the arrangement." We beg to call the attention of the General Medical Council, and of the College to which the Medical man belongs, to the report of this inquest.

Whether subterranean fire has anything to do with terrestrial cold, we know not. At present, at all events, there appears to be no antagonism between them; for whilst nearly half the world has been frozen, a new crater has been opened in Vesuvius, and a new volcano has just burst out in Nicaragua.

We had hoped that in this advanced period of the world's history our Profession had outlived the period of gratuitous insult from the Mould fraternity. We were undeceived, however, by the sight of a black-edged circular sent to a leading London Physician, accompanied by a written slip of paper, stating that Messrs. ——, upholsterers and undertakers, had increased their rate of allowance upon all introductions to *ten* per cent.!

The *Standard* of Wednesday contains an account of the illness of several persons, and the death of one, which took place after eating a Christmas dinner of roast goose. Mr. J. E. D. Rodgers, who was called as a witness at the inquest, deposed to finding no vegetable or animal poison in the remains of the goose, and advanced the theory that the death had taken place from eating botulinic acid, an acid which he states is generated in goose fat, and to which poisonous properties have been ascribed by Buchner. The jury returned a verdict of death from eating poisoned goose.

The four Cantor lectures at the Society of Arts will be delivered this year by Dr. Letheby, on Monday, January 20, at 8 p.m., and each succeeding Monday. The subject is "Food: its Varieties, Composition, Function, Preparation, Adulteration, etc."

The Obstetrical Society have opened a new reading room and library for the benefit of the Fellows, in Regent-street, near the Polytechnic Institution. The arrangements for the comfort of the members are said to be excellent; the library, considering the age of the Society, is a remarkably good one; and the situation is about the best that could have been chosen.

A question has arisen in reference to the appointment of a successor to the late Dr. Daubeny in the Botanical Professorship at Oxford, on which the Royal College of Physicians, with whom the appointment rests, are, we believe, intending to obtain legal opinion. The statutes of the University enact that the Professor shall be M.A. The question at issue is whether the degree must be necessarily an Oxford one, or whether a Cambridge graduate would be eligible. If the degree be necessarily from Oxford, would an *ad eundem* M.A. conferred on a Cambridge man meet the requirements of the statute? The question in the present instance is an important one, as a Cambridge candidate with undoubtedly high botanical qualifications is said to be desirous of competing for the appointment.

We have great pleasure in announcing that Dr. Lavies has succeeded his late father in the office of Surgeon to the Westminster House of Correction, by the almost unanimous vote of a very full court of the Middlesex magistrates. The election took place on Thursday, January 16.

THE CLINICAL SOCIETY.

On Friday evening last, the Clinical Society met for the first time in proper working order, Sir Thomas Watson in the chair. The room was filled with celebrities, some of the best known of our Profession being there assembled. After a short but eloquent address by the President, on the important work the Society had to do, the meeting proceeded to the business in hand for the evening. Mr. Maunder first read a most instructive case of resection of the shoulder-joint ending successfully, although the patient was far from young. The woman was present for inspection by those who desired it. Dr. Morell Mackenzie then read several cases of exophthalmic goitre, with the treatment adopted in each, which gave rise to such a lengthened and interesting discussion, that no more cases were read. It will give some idea of the constitution of the meeting, and of the importance of the remarks made, if we merely subjoin the names of those who came forward with the results of their experience on the subject. They were—Drs. Greenhow, Anstie, C. J. B. Williams, Handfield Jones, Hyde Salter, and Herbert Davis, together with Messrs. E. Hart and Bryant. We must congratulate the promoters of the Society on the complete success which has attended the realisation of their scheme.

THE SOUTH LONDON MEDICO-CHIRURGICAL SOCIETY.

The inaugural address of the above new Society was delivered by the President, Dr. Clapton, on Thursday, the 9th inst., at the Ophthalmic Hospital, Southwark. In his opening remarks, Dr. Clapton referred to the objects which the promoters desired to effect by the establishment of such a society, not the least important of which was "the maintenance of an honourable and friendly feeling amongst its members," as tending to exalt the Profession in the eyes of the public, and serving as an effectual check to the advancing tide of quackery. By such societies the Practitioner is enabled to impart to the Profession his experiences of remarkable and exceptional cases, or to anticipate the establishment of an epidemic, so that, by an early attention to the hygienic conditions of the district, he might succeed in materially arresting its development. A vote of thanks was given to the President at the conclusion of his excellent address. Dr. Clapton, in responding, bore testimony to the indefatigable zeal and energy with which the two secretaries had made all the preliminary arrangements. After the address, the members and friends adjourned to a *conversazione* in another room. Messrs. Weiss, Murray and Heath, Durrock, Horne and Thornthwaite, Masters, and Milliken exhibited the

most recent inventions in Surgical instruments and appliances. Several of the gentlemen present also exhibited some objects of interest to the Profession. Dr. Clapton showed the application of the sphygmograph, Mr. Laurence the ophthalmoscope, Mr. Brookes the laryngoscope, and Mr. Churchill his temporary ligature and "hook and eye" suture. Tea and coffee, with a liberal supply of substantials, were served in another room. We hear that, before the conclusion of the meeting, about 60 gentlemen had proposed themselves as members of the Society.

THE FEVER AT TERLING.

The editor of the *Standard* of Monday last, reviewing Mr. Haviland's report on the fever at Terling, which appeared in our last number, writes :—

"To the fifth suggestion we think that the Medical men of the neighbourhood, who have already been overworked, should be rewarded liberally from the public purse, and have their labours, which seem to be on the increase, relieved by the temporary appointment of one or two other gentlemen during the virulence of the epidemic, so that we may not have repeated what has occurred in other fever-stricken places—viz., the sacrifice of the valuable lives of those who, whether at home or abroad, are the first to offer themselves to lead the 'forlorn hope' when disease wages war against us. . . . Reports of epidemics may prove very interesting in blue books, but we think that instant action is the one thing needful, and although beef-tea and wine, which we understand flow in abundance, may be all powerful in treating the effects of an epidemic, we should have preferred seeing an energetic cause-removing policy at once adopted so soon as the source of all this disease and death had been ascertained."

PROPOSED NEW ASYLUM FOR IDIOTS.

At the late quarter sessions for the county of Warwick it was determined to erect an Asylum for that county to accommodate not more than 200 idiots. This is the first county in England in which special provision is determined to be made under the Lunacy Acts for pauper idiots, as distinguished from lunatics; but it is decided by the magistracy that the new Asylum shall be under the government of the same committee as the County Lunatic Asylum, and that it shall be erected, if possible, on land contiguous to that of the Lunatic Asylum, so as to be also under the general supervision of Dr. Parsey, the Medical Superintendent of that Asylum. The county of Warwick has already the honourable position, with regard to its insane poor, of providing in its County Asylum for a larger proportion of them than any, except two, other English counties (80 per cent. of those subject to the inspection of the Lunacy Commissioners); but among the inmates are about 60 idiots, some of them under 10 years of age. There are also about 100 in the different Workhouses; and, in addition to these, it has been ascertained, by careful inquiry instituted throughout the county, that the proportion of idiots and imbeciles of the poorer class living with their friends, and very few of them under any supervision, average one to about every 1000 of the population. The population of the county of Warwick, exclusive of Birmingham, which makes independent provision for its insane poor, is in round numbers 260,000; its present Lunatic Asylum will accommodate 460 patients, or one in 565 of this population; and it is supposed that the additional two hundred beds given by the Idiot Asylum will enable all the wants of these two unfortunate classes to be amply provided for, as it is not to be expected that nearly all the idiotic and imbecile poor will require the special care of an Asylum. It is very satisfactory to find that the magistrates adopted the enlightened course of separating the idiots from the lunatics, thus giving facilities for their independent special treatment, instead of converting the present County Asylum into an unwieldy size by unsatisfactory enlargements.

RADCLIFFE TRAVELLING FELLOWSHIP.

We give in another place the notice issued by the examiners for this Fellowship; but as many of our younger readers are doubtless unaware of the advantages held out by the foundation, and as certain alterations will shortly take place in the regulations for candidates, it may be well for us to state in the first place what the Fellowship is, and, secondly, to explain the alterations shortly to be introduced. Without going into a history of the foundation, we may state at once that a Fellowship, of the value of £200, and tenable for three years, is given each year after a competitive examination. Candidates must have passed all the examinations required by the University of Oxford for the B.A. degree, and must have been placed in the first class in the School of Natural Science. The examination is in subjects connected with Medical science, and the Fellow elected is required to travel abroad with a view to his improvement in that study, and eventually to graduate in Medicine in the University of Oxford. A Fellow forfeits his Fellowship by spending more than eighteen months within the United Kingdom. Such are the regulations in force up to this date; but after the present year the Fellowship will be open to all persons who, having passed all the examinations for the degree of B.A., propose to study Medicine; the restriction as to the first class in Natural Science being removed. The alteration which is now made is in conformity with the ordinance of the University Commissioners. In order to insure an adequate scientific training for those who were to enter the competitive examination for the Fellowship, the Commissioners had directed that for ten years from the passing of the ordinance the students should have taken the first class in science as above stated. It was apparently hoped that in those ten years public opinion and the progress of the University would cause such restrictions to become unnecessary. It may be presumed that such expectations will be realised, and that in 1869, and afterwards, there will be an increased number of scientific students, who having passed through arts are worthy to enter the Medical Profession with this addition to their means. Of the advantages it holds out for study at the Continental Hospitals it is needless to speak; we can only cordially hope that such a foundation may always be filled by deserving candidates, who may hereafter shed lustre upon it and upon our Profession.

FROM ABROAD.—M. RICORD'S ADDRESS—GERMAN PROFESSORS.

M. Ricord, whose election as Vice-President of the Académie de Médecine was contested last year on the ground of his practising a speciality, has delivered an address on assuming the President's chair for the present year, which has called forth general approbation. From this we may extract a passage relating to the functions of the Academy. After deploring the numerous losses by death this learned body has sustained of late, but anticipating great things from the eminent members of the Profession that have been elected to supply the vacancies thus caused, he goes on to say :—

"With such recruits, our Academy will continue what public opinion proclaims it now to be—a most active centre of Medical science in all its elements. It is here, in fact, that the scientific movement of the epoch resorts and resounds, for here it is that it finds protection, encouragement, and reward, and here it also meets with advice and direction, and sometimes, if need be, with cautions and resistance. The Academy is a lover of progress, and always follows it, frequently, too, stimulating it, and sometimes moderating it. This function of moderator is both useful and efficacious. In our human organisation, when fever lights up, there is frequently a favourable reaction, which it would be imprudent to oppose; but it is necessary to restrain this reaction within certain limits, beyond which sedatives are indicated. The fever of progress has the same need of direction and restraint lest it become destructive; and it is especially to Academies that this protective surveillance belongs. For this fever the sedatives are found in history, tradition, and the constant

observation of patients and their diseases, with the humane and social desire of relieving the one and removing the other; for without this our science would be but a mere curiosity or a sterile branch of natural history. These grand and useful traditions of encouragement, direction, and teaching will not be lost sight of in our Academy. I say teaching, for Academies possess their power of instructing as well as the Schools, books, or journals. At the present day, teaching is diffused on every side, and more often is it to be found than elsewhere in a learned academical report or in one of those brilliant discussions which have been so frequent within our precincts. The Academy has fulfilled its grand and beautiful mission with persevering intelligence for now nearly half a century. Doubtless, institutions are not perfect any more than individuals; but the Academy has several times proved that it knows how to adopt, or even originate, useful, reasonable, and possible modifications, of which experience has caused the want to be felt. It will not stop on the path of progress; and may the press, its powerful auxiliary, which imparts to its labours diffusion and popularity, furnish its aid, continuing, as it always has been here, where it has always enjoyed full liberty, just, moderate, impartial, and kindly."

M. de Ranse, of the *Gazette Médicale*, whilst doing justice to the spirit in which M. Ricord's discourse is conceived, thinks that the controlling or directing power of Academies must be looked upon with some reserve.

"Directing progress," he observes, "is a somewhat more difficult matter. The more reason, doubtless, for an Academy to make it a point of honour to accomplish the task. Taking a large share in the scientific movement of the day, it ought sometimes to stimulate and sometimes to moderate this. M. Ricord has placed in full relief this latter position of moderator attaching to Academies, but, while admitting the justice of his observation, we think that this should not be too frequently repeated. The majority of the members of Academies are, in fact, men who have produced much, and who, still our masters, have yet arrived at the age of repose. They stand still while science advances, or they follow her but slowly; and they are rather disposed to put a drag on progress than to impart a new impulse to it. Without doubt, their influence is counterbalanced by that of the young recruits, but that only in part; and no one can mistake or contest the conservative spirit which in general animates Academies. We repeat that such tendencies have their utility, and even necessity, in the destruction of illusions, and in furnishing real and solid bases for new discoveries; but they are too firmly rooted to require either flattery or encouragement."

It is not only in the military circles that the progress of Germany excites attention in France, and that superiority is admitted. The men of science also have something to say on this matter, and this is said, as, indeed it ought to be, not in the hostile spirit characterising the political diatribes, but in one of generous emulation, with a view to improvements from which all may be gainers. M. Lorain, *agrégé* Professor of the Paris Faculty of Medicine, has constituted himself spokesman on the occasion. He calls attention to the fact that in Germany a learned professorial body exists which, furnished with the most elaborate appliances and well remunerated, is content to devote itself to the advancement and exposition of science without any ultimate views beyond this important function. No such class can exist in France, for there is no machinery for its sufficient maintenance independently of practice, to obtaining which, in fact, the professor's chair often serves only as the stepping-stone. Need we say that with ourselves matters are just as bad, and even worse, and that, with some very few exceptions, there are no provisions for that learned leisure which many able men would be well content to employ in the investigation of the different branches of Medical science, and imparting the results in that complete and comprehensive manner that can alone be attained by those whose attention is not diverted by incompatible objects? What is done in spite of the absence of these advantages is indeed remarkable; but about some of the work accomplished there is a hastiness and imperfection traceable to want of time and defective appliances for investigation.

After expressing his opinion as to the superior manner in which pathological anatomy, histology, Medical chemistry and physics, and experimental physiology are studied in Germany, and the utility of their vast and well-appointed *laboratories*, M. Lorain goes on to speak of the constitution of the professorial body, which in France is only a means, not an object:—

"Germany does better. The *savant* there knows no higher title than that of professor, and he assumes no other. That is at once his honour and his function, and the object of his life. He does not aspire to the professorship as a means of reaching the favour of the public or gaining other employments, but as a permanent and definite condition which will engage all his activity and will allow to him his full development. Through it he will produce his ideas and will contribute to the progress of science, and in it he finds his instrument of labour and celebrity. He lives by his position, and has no need to resort to practice to supplement his means of doing so. In a town of only a second rank—what would be called in France a provincial town—the Professor of Physiology will, together with his family, be lodged at his Institute, and will be in the enjoyment of all those material advantages which are due to an honourable position. He lives in his laboratory, surrounded by his pupils, well acquainted with them, conversing familiarly with them, initiating them into the practice of his science, encouraging and extricating from obscurity the most deserving, and pursuing before them, and with their aid, those labours of prolonged duration which may lead to great discoveries. Thus may he pass through life, desiring nothing beyond his function. This provincial professor is well remunerated by his country, receiving from 20,000 fr. to 25,000 fr. per annum from his official salary and pupils' fees. It is the interest of the Professors to attract pupils, their fortune and reputation alike benefiting by the concourse. There are no 'Ecoles de Médecine' in Germany, but only the various professors, who all constitute a part of the University."

It remains to be seen whether, in the altered circumstances of public life in Germany, some of that large amount of talent which has heretofore found its only free development in the Professor's chair, will not hereafter be diverted into the political life now called into being.

ON THE

PRINCIPAL APPLICATIONS OF THE GRAPHICAL METHOD TO BIOLOGY.

No. I.

GREAT is the power of language; and yet that power, great as it is, has more than once been found inadequate to express the varying conditions of natural phenomena. Our most accurate descriptions often fail in conveying a definite idea of their objects; and the immense utility, or, to speak more correctly, the absolute necessity, of plates and engravings in the study of anatomy and of the various branches of natural history, has at all times been universally acknowledged.

It has often been found convenient to exhibit a graphical representation of ideas of a more abstract nature. The ingenious system which allows us to express a geometrical curve by an algebraical equation, and, *vice versa*, an equation by a curve, has been employed for more than a century in the investigations of physical science. The rise and fall of the thermometer, the oscillations of the barometer, the statistical conditions of life in different countries, the increase of population, or the progress of an epidemic have thus been accurately delineated. But the application of this method to the analysis of clinical phenomena is perhaps still more familiar to Medical readers.

A sheet of paper being divided by a series of parallel lines into a certain number of segments, and these again divided into squares by another series of parallel lines running perpendicular to the first, the oscillations of the temperature, the frequency of the pulse or of respiration, the abundance of the principal secretions, and various other data, can easily be represented by corresponding curves, which enable the observer to read (so to speak) the whole history of a case at a single glance. The advantages of this system are too well known to require any further notice.

Such is evidently the most striking and compendious form in which the result of our observations can be brought forward. But although the system is evidently, for this purpose at least,

a most convenient one, it seems at first difficult to understand how, instead of registering well-ascertained data, it can lead us to discover new facts, and open an immense field for experimental inquiries.

It is our present purpose to show that the graphical method, which has already rendered the greatest service to other branches of science, is marvellously adapted to the study of vital phenomena; in this respect, its resources, which still remained in an almost latent state some ten years ago, have been most successfully developed by a French physiologist—Dr. Marey. We will endeavour to set forth, as briefly as possible, the principles on which this method rests.

If, instead of remaining motionless, our sheet of paper is carried along by a regular movement, while a metallic point traces upon it the oscillations which correspond to certain given phenomena, we shall obtain their mathematical expression, in the form of a curve, with a higher degree of precision than by any other experimental system of investigation. The vibrations of the diapason, for instance, which are invisible to the naked eye, trace the following line:—

Fig. 1.

Let us suppose that the instrument vibrates 100 times in a second; then each successive undulation will correspond to $\frac{1}{100}$th of a second; and, as each undulation can without difficulty be divided into ten equal parts, we shall thus be enabled to measure $\frac{1}{1000}$th of a second with perfect accuracy. Let us bear in mind that the impressions made upon the retina do not disappear before $\frac{1}{10}$th of a second has elapsed, and that all phenomena which succeed each other at closer intervals seem continuous to the eye,(a) and we shall then be able to appreciate the immense advantages of this system. As the magnifying power of the microscope enables us distinctly to perceive objects which, from their excessive minuteness, would otherwise escape our senses, so does the graphical method enable us to distinguish phenomena which, from their rapid succession, would otherwise remain invisible.

Some recent applications of this system to the science of acoustics will sufficiently illustrate our meaning. The vibrations of a square metallic rod trace upon a glass plate blackened with smoke the figures shown in Figs. 2, 3, 4, and 5.

In the first case, the number of vibrations being equal in both directions, we have an ellipse, which becomes a perfect circle when the vibrations are equal in amplitude. In the second, the vibrations are twice as many in one sense as in the other; and the figure produced is an 8. The other two figures express the proportions of 2 : 3, and 3 : 4.

When a cylinder turning rapidly upon its axis is substituted for the glass plate, we have the various curves of Fig. 6.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

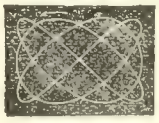
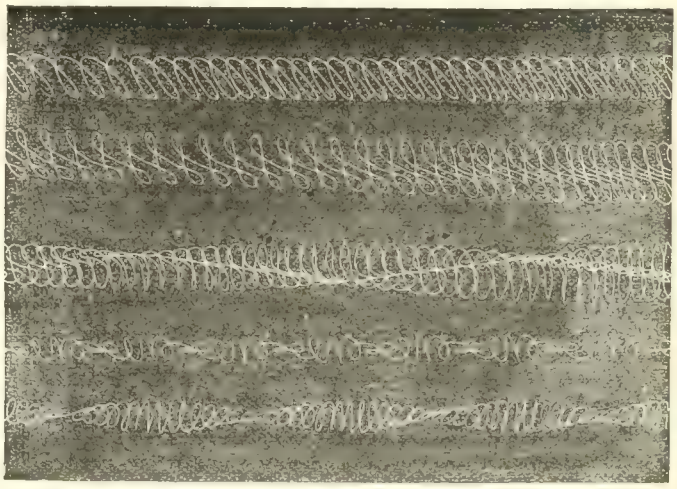


Fig. 6.



The upper curve expresses the proportion of 1 : 1 (unison). The second corresponds to the proportion of 1 : 2 (octave). The third expresses the same sound, slightly out of tune—a circumstance which gives rise to the deviations observed in the curve; for the slightest defect in the tuning of the instrument immediately gives rise to an evident irregularity in the corresponding curve. The two lower curves express the proportions of 5 : 6, and of 15 : 16.

These instances will suffice to give an idea of the numerous applications of the graphical method to the physical sciences. Its principal advantages may be summed up as follows:—

1. It gives a graphical delineation and a distinct figure of the most complicated phenomena.

2. It enjoys, with respect to time, a magnifying power, which enables us to analyse, with perfect ease, the most rapid succession of changes.

3. It corrects the *personal* errors which may be laid to the charge of the observer, whether from prejudice, from inattention, or want of sensorial acuteness, and substitutes a mathetical and positive expression of facts for the ever-varying and often contradictory appreciations of the human eye.

We must, however, observe that, in order to insure accuracy, the most perfect regularity of motion in the revolving cylinder is indispensable—a desideratum which cannot be realised by clockwork, and can only be obtained by means of Professor Foucault's *regulator*, which is now universally employed in astronomical observations.

Let us now enter upon the *biological* part of our subject.

(*To be continued.*)

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

(*Continued from page 42.*)

The St. Louis Hospital—M. Hardy's Clinique—Relative Frequency of different Skin Diseases in Paris and in London—Syphilitic Circinate Erythema—Case of Leprosy—Case of Pemphigus Foliacé—M. Hardy's Photographic Portraits of Skin Diseases.

A MAJORITY of M. Hardy's patients were cases of no very unusual severity. I was struck, as also in M. Bazin's wards, with the infrequency of common psoriasis as compared with home practice. Lupus is as common as with us, but not more so. Nearly all the nurses and servants at St. Louis appear to be the subjects of cured lupus, retained no doubt out of charity.

M. Hardy made a very dexterous diagnosis in the case of a young man with a general eruption much resembling urticaria or circinate erythema. The rings were not very conspicuous, and required looking for. M. Hardy pointed out that they were persistent, and remarked that therefore the eruption could not be urticaria, for, said he, the essential feature of urticaria is its mobility. He diagnosed the eruption as an annular or circinate syphilide; and such it undoubtedly was,

(a) A popular illustration of this fact is afforded by the amusing toy known under the name of the "Wheel of Life."

as proved by the patient's tongue and mouth, which displayed large bald patches.

There were two cases of very unusual interest, respecting which I must give some detail.

The first of these was an instance of true leprosy. The patient, a young man of 19, had been attracted over from New York by the fame of St. Louis, in the hope of cure. He has suffered from the disease for four years, and his father died of it. His mother and an elder sister are living and healthy. His father lived in New Orleans, and he himself, although born in New York, was taken to New Orleans in very early life. The disease is of the erythematous and anæsthetic form. His whole face is of a dusky red, and the skin thickened. The greater part of the skin of his trunk and extremities is in a similar condition. On his thighs and legs large patches of white skin (natural) are interspersed amongst those of erythema. On almost all parts sensation is extremely defective, and on some quite absent. On the thighs he appeared to feel equally badly on the dusky parts and on those which are still white. His ulnar nerves appeared to me to be double their normal size.

The second case to which I have alluded is one which M. Hardy has (I believe) published in his series of photographs, and is an instance of that very rare malady, pemphigus foliaceus. Like other cases on record, it seems likely to end fatally. The poor woman is now exceedingly emaciated, and quite confined to bed. She is covered from head to foot with a moderately dry crust of mixed composition, partly epidermic (scaly) and partly the result of moist exudation. There are not now, and probably have not been for long, any distinct bullæ. It may be asked, why call such a [illegible] at all? The case is undoubtedly an example of the disease to which that name was first given by M. Hardy himself some years ago, and which other authors have since recognised. Although it differs much from the more common forms of pemphigus, yet it clearly is in some points allied to them. In the early stages bullæ are met with, but they are much smaller and more delicate than those of typical pemphigus. They break very quickly, and their secretion then helps to form the large paper-like crusts which give it its distinctive name. I am now writing in part from the observation of a case which has for some months been under my own care in the London Hospital, and in which, as the disease has resisted all treatment, I fear that the patient will ultimately pass into the condition in which M. Hardy's now is. My patient, like his, is [illegible] woman.

Here may I be permitted to criticise a little both the plan and the execution of M. Hardy's photographs? They are published under the name of "Clinique Photographique de l'Hôpital Saint-Louis." I wish they were more clinical. Instead of giving us in the text an account of the case of the patient whose portrait is presented, M. Hardy has written a short summary of the symptoms, etc., of the disease which it is supposed to illustrate. To the clinical worker this is most disappointing. We have already an admirable systematic book from M. Hardy's pen, and in connexion with a photographic portrait a history of the patient is essential. As to this very important and rare case of pemphigus we have not one word. The photograph is not a happy one; and the patient having been permitted to keep her dress on, only one hand and the face are seen. There is nothing which the most trained expert could recognise, and yet, had we the notes of the case, even this rough delineation would be very useful.

There is another portrait in M. Hardy's series, respecting which the want of a history is especially provoking. It is a very good portrait, and shows exceedingly well the characters of an eruption on a girl's face to which M. Hardy gives the general and inclusive name of "impetigo." To it is appended a brief general description of "impetigo," applicable to all its various forms, but not one word about our patient. Now the student of dermatology wants to know what became of this one case, what was its history, and what its termination. It is not one of the more common varieties of impetigo, but a very peculiar form, and the same, if I mistake not, as that which I have already mentioned as diagnosed by M. Bazin as "Herpes phlyctenodes," a disease which has the peculiarity of spontaneous cure. It is the disease portrayed in portrait No. XV. of the New Sydenham Atlas, in which instance the patient got well without treatment before the artist had finished. I have no wish to suggest a profitless discussion as to names. What I do wish to point out is that the only way to fix names and give them definiteness, is to allow the student the fullest data as to the cases to which they are applied. To diffuse the clinical wealth of St. Louis by the aid of photography is an undertaking worthy of M. Hardy and of the Hospital. It is to be hoped that the series will prove a long and successful one. If I have ventured to criticise, it has been solely in the hope of making it yet more useful. The wards of St. Louis have been for several generations the world's schoolroom of dermatology. Here those who were to be teachers elsewhere have come to be taught themselves. Here Alibert, Cazenave, and Devergie worked. Compared with that of Paris, the German school, brilliant as it is at present, is of recent origin. In the hands of MM. Bazin, Hardy, and Lailler, the fame of the past need fear no loss. To M. Bazin, directly or indirectly, we owe nearly all the exact knowledge which of late years has been promulgated in reference to cryptogamic diseases, and several other important items of progress are also due to him or his colleagues. We must rank the recent establishment of the Museum and the commencement of M. Hardy's Photographic Clinique amongst the proofs that St. Louis intends in the future to maintain her foremost place.

(To be continued.)

REVIEWS.

An Inquiry into the Suitableness of certain Articles of Hospital Equipment for India. By Surgeon-Major CHARLES R. FRANCIS, M.B. Lond., H.M.'s Indian Army, Bengal. Rochester: Wildish. 1867. Pp. 19.

WE are glad to see that some of the fruits of the French Exhibition of 1867 are likely to find their way to India for the benefit of the troops there.

Dr. Francis, Medical Examiner to Government in the Bengal Presidency, has studied the subject of Army Hospital equipments, more particularly with a view to utilising certain articles which he met with at the Exhibition. He has borrowed ideas from several sources and, combining them with his own knowledge of the requirements of India, has had models and drawings made of various contrivances, which he proposes to submit to the Government. Thus, in the pamphlet before us (consisting of nineteen pages of letter-press with two of illustrations), we have—(*a*) an ambulance constructed upon a combination of Italian and American principles, a perfect *travelling Hospital*, in which the wounded may be independent of the field Hospital, in the event of separation from the base of operations, for a day or two. (*b*) Another of a lighter description, somewhat similar to that introduced by Dr. Duncan Macpherson into Madras, and intended to convey sick men from the barracks to the Hospital, or to follow the column on the line of march. (*c*) A field-hospital stretcher which differs from those in use at present in the British army in having supports, and a very valuable feature in which consists in the facility with which the entire stretcher (first the poles, with the traverses and supports, and then the canvas) can be removed from the wounded man when he is placed on his hospital bed. (*d*) A modified form of dooly, which can be carried by two bearers, with a relief of two more, thus reducing the entire number by *a third*. Dr. Francis starts upon the principle that the dooly should be retained, but that it should be used *only* by those who are unable to sit up or partially recline; at present *every* wounded man is put into a dooly. (*e*) A pair of wheels, designed by Sergeant Shortell, of Netley, under the supervision of Professor Longmore, which can be adapted to any kind of litter—a great advantage, as bearers are becoming scarce in India. (*f*) A knife and fork combined, for one-handed men; claimed by the Americans as an invention of their own, but really of English origin, and manufactured by Weiss and Co. since the Peninsular war (!). (*g*) A vegetable parchment bag (made by the action, we believe, of sulphuric acid on blotting-paper) to contain water for cooling the head when excessively heated. (*h*) A havresac, of French invention, to contain all that may be likely to be required by an advance force when separated from the Hospital store-cart, or in mountain warfare, in leading a forlorn hope, etc. (*i*) A Medical companion. And lastly, (*k*) a medicine wagon (American), containing a medicine chest, in which the bottles are made to fit into their respective places by means of a spring, thus superseding the time honoured custom of wrapping up bottles in rolls of tow, and consigning them into receptacles for their safe keeping, a system which must inevitably lead very frequently to confusion and delay. Dr. Francis's endeavour has been to provide more efficient substitutes for articles already in use,

to diminish cost, and to introduce into the Indian army certain new articles which are likely to add to the comfort of the wounded. It is not for us to decide upon the merits of these things; the question will, doubtless, come before a committee in Calcutta, but we venture to think that Dr. Francis has done good service in thus bringing forward the entire subject of Army Hospital equipments for India. We believe we are right in saying that he has supplied a great want. A suitable ambulance for that country has been talked and written about since 1863, and one or more have been constructed, but none have hitherto been found to answer. The authorities in India will now have an opportunity of going over the ground again with what they have never yet had before them—viz., working models and drawings of the very latest and approved designs in Hospital equipments of this nature.

GENERAL CORRESPONDENCE.

THE SUPPOSED SEAT OF APHASIA.

LETTER FROM DR. J. H. SIMPSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have to thank Dr. Ogle for pointing out an inaccuracy in the description of my case, by which it seems that my meaning has been rendered somewhat obscure, and I regret that, through the non-delivery of my paper, I did not see his letter in time to reply to it the following week. The frontal lobe of the cerebrum being divided into frontal and orbital lobules, I intended to indicate the convolution on the posterior and inferior part of the former, though I admit that it would have been more correctly described as the posterior part of the third or inferior frontal convolution.

I presume that Dr. Ogle thought I was alluding to the posterior convolution of the orbital lobule, but am at a loss to understand how he can deduce from the notes of the autopsy that the lesion was situated in front of the olfactory bulb, as its anterior margin was defined as being an inch from the anterior border of the hemisphere, and its internal margin five lines from the outer border of the olfactory bulb. From these limits it extended outwards for an inch and three-quarters, and backwards for an inch and a half, reaching in the latter direction nearly to the fissure of Sylvius.

These measurements refer merely to the dimensions of the old apoplectic clot, but the grey matter for a considerable distance round, and especially in the posterior and external directions, was much atrophied, condensed in structure, and most probably unfit for the exercise of any power as a functioning centre. I am, &c. J. H. SIMPSON.

County Asylum, Gloucester, January 7.

ON THE CAUSE OF THE TERLING FEVER.

LETTER FROM DR. R. W. TIBBITS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Medical Times and Gazette* of January 11, I read with the greatest interest the account written by Mr. Haviland of the outbreak of typhoid fever at Terling. In doing so one particular sentence specially attracted my attention—viz., Mr. Haviland writes that "the peculiarity of the outbreak of fever was its suddenness, and wherever I went I found that the Dairy Farm seemed to be the point considered as the *fons et origo mali*" Now at this farm the first case of fever had occurred, and from there milk is supplied to all the village: "Twice a day at least, there is hardly a family some member of which does not visit it."

Before drawing any conclusion from the above facts, I may, perhaps, be permitted to state that, as regards the spread of typhoid fever, I believe—

1st. That the disease is not of a sufficiently contagious nature to account for a number of people being suddenly attacked with it, simply from visiting a house in which a fever patient resided.

2nd. I do not believe that water contaminated with excremental matter will cause fever, unless it is contaminated with the discharges of a person actually suffering from the disorder.

Now, although Mr. Haviland shows that the wells of the village were open to sewage contamination at the time of the sudden outbreak, could they have been polluted by *specific discharges?* or was it the case, as from the report I am inclined to believe, that the well at the Dairy Farm, where the first case of fever occurred, was the only one into which typhoid germs could have soaked? If so, then, indeed, we may have a frightful explanation of the suddenness of the outbreak, for those principally affected were the women and children—*i.e.*, the milk-drinking part of the community. And may it not be possible that the milk (as is often the case) was diluted, water from a well containing typhoid germs being used for the purpose? At any rate the vessels used to hold it would most probably have been washed with impure water.

I am, &c. R. W. TIBBITS, M.B.

Victoria-house, Clifton, December 12.

MR. SQUIRE ON ALOES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your article on aloes will be read by all lovers of Materia Medica with deep interest. It surpasses all former histories of the drug that I have read, and shows an amount of diligence and research rarely equalled; it brings down from the remotest antiquity its uses, and the whole history is well arranged.

I quite agree with you as to the difference in effect, according as it be given in the solid or the liquid state; two or three grains of the watery extract in a pill will act well with me, whereas I can (without producing a more powerful effect) take of that popular medicine, "the compound decoction of aloes," as much as contains six to eight grains in solution of the extract. I still, however, cling to the latter; it takes away headache, acts naturally, and without the slightest inconvenience. The compound decoction is now made with the *extract* (not "aloes" as formerly), and made stronger than P. L., although not quite so pleasant to take; for the British Pharmacopœia Committee have not increased the liquorice in the same ratio as the aloes, and as liquorice best covers the bitter of aloes, the decoction of the British Pharmacopœia should have a little more of it to make it palatable.

Your article would be most complete if you could have ascertained the exact mode of preparing the Socotrine aloes. I can tell you what I have been informed by a gentleman who has just come from Barbadoes, and has seen the aloes prepared. He says the leaves are cut transversely, and placed with the incised surface dripping into a trough which inclines to a boiler; the juice thus runs into the boiler, and is evaporated to a proper consistence, then put into gourds for the market.

He has promised to send me two growing plants, in order that I may experiment upon them to extract the juice and prepare the aloes here; if I get them, I will certainly report the result to you. You cannot do better than appropriate your "spare moments" to the history and uses of other important drugs. I am, &c.

277, Oxford-street, January 7. P. SQUIRE.

POSTURAL TREATMENT OF FUNIS PRESENTATION.

LETTER FROM MR. N. ADAMS.

[To the Editor of the Medical Times and Gazette.]

SIR,—A few days ago another case of successful postural treatment of funis presentation occurred in my practice. The patient being in active labour with her eighth child, I found on examination a loop of the funis stretched over the summit of the head, which was passing rather rapidly through the pelvis. I endeavoured to replace and keep the funis above the head, but could not do so; but, on placing the patient on her elbows and knees, I had no difficulty in pushing it back, and it did not return. I kept the patient in the same position till the head was pressing on the perinæum, when I allowed the birth of the child to take place in the usual position on the left side. Perhaps, by bringing this mode of treatment once more before your readers, other accoucheurs may be induced to adopt it with equal success. I am, &c. N. ADAMS.

Lymington, December 27, 1867.

A LUNCHEON OFF HORSE, the *Parochial Critic* tells us, took place last month at the Queen's Elm, Fulham-road. Fourteen guests sat down to table, and were unanimous in their approval of horseflesh.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 4, 1867.

Dr. HALL DAVIS, President.

(*Continued from page 48.*)

DR. MEADOWS exhibited a

NEW UTERINE SOUND,

to which was attached a Metroscope. The chief peculiarity of the sound consisted in having the measuring points on the concavity instead of the convexity of the instrument. The metroscope was formed by means of a glass prism, fixed at an angle to the handle of the sound, and was so placed that, when used through the speculum, objects could be seen almost at a right angle to the axis of the speculum, and at a considerable distance from the refracting surface of the prism.

Dr. HEYWOOD SMITH exhibited a child, five days old, affected with what he believed to be encephalocele. The tumour occupied the posterior aspect of the head, and measured 6¼ inches in girth at its root, and about 8 inches from the superior margin of the root over the tumour to the inferior margin. Dr. H. Smith also showed the placenta, which presented the peculiarity of having the funis fused with the membranes for the space of six inches.

Dr. EASTLAKE exhibited a child in whom the posterior fontanelle was large and quadrangular.

Dr. GRAILY HEWITT exhibited a specimen of

TRAUMATIC ANEURISM OF THE UTERINE ARTERY.

The subject of this unusual case was an Irishwoman, a patient of University College Hospital, the mother of several children, aged thirty-seven. She was delivered by means of the forceps, and for the first few days appeared perfectly well. On or about the fourth day after labour, her husband came home drunk, and it is stated that he knelt upon her as she lay in bed. No immediately bad effects followed, but, thirteen days after labour, a slight flooding occurred. Inflammatory action on the right side of the abdomen became evident. Twenty days after labour, a second violent flooding took place, from which she nearly died. Thirty-one days after labour large quantities of yellowish matter escaped per vaginam. On the thirty-fourth day a third violent flooding came on; and on the thirty-seventh day there occurred again a fourth and final violent hæmorrhage, from the effects of which she could not be rallied. The parts exhibited consist of the uterus and neighbouring structures. The uterus is large, os patent, a small clot within it. At the junction of the cervix and body are two depressions, one on each side; on the left side there projected into the uterus from the pouch in question a rounded mass half an inch in diameter. By the side of this projecting mass a probe freely passed through the pouch into the interior of a large abscess, which reached from the broad ligament to the kidney. The little mass was hollow, contained a small clot of blood, and was perforated at one part of its surface. It was found, on further dissection, to be an aneurismal dilatation connected directly with the uterine artery, which opened freely into it. The sac itself was composed of layers of fibrin. It is evident that the uterus had been bruised, and probably actually lacerated, by the pressure employed against the projecting pelvic brim behind, the organ being at the time of the injury still of considerable size. The perforation of the uterine wall, and the abscess, were secondary effects; the aneurismal enlargement showed that the uterine artery had been injured, and the source of the repeated hæmorrhages from the uterus was the enlargement in question. The case appears to be unique.

Dr. AVELING considered that it would have been advisable to dilate the cervix with a sponge tent, and then explore the uterine cavity with a view both to diagnosis and treatment.

Dr. ROUTH, understanding from Dr. Hewitt that he had detected the abscess during life, and judging with the advantage of the post-mortem examination before him, could not but think that perhaps something more might have been done before death. A sponge tent applied would have given a freer exit to the pus subsequently, and at any rate checked the hæmorrhage. Moreover, it would have revealed the existence of this pulsatory tumour, which might have justified the injection of tincture of the sesquichloride of iron into the uterine cavity, or a drop or two of the perchloride might have been injected into the tumour itself, or the continuous galvanic current applied, and so the tumour destroyed. After the second hæmorrhage some interference was justifiable, and the third might not have been fatal. He did not, however, in any way call in question Dr. Hewitt's skill, as the case was very obscure during life.

Dr. GRAILY HEWITT stated, in reply, that he had not seen the patient during the first part of her illness. Her condition was such that he did not consider dilatation of the os with the view of exploring the interior of the uterus would have been a proper procedure. Looking to the fact that the probability was during life in favour of the existence of rupture of some vessel of the uterus, extreme rest and quiet appeared to afford the patient the best chance of recovery. The condition actually present was of course not suspected, there being no instance of the kind on record.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 7, 1868.

J. SIMON, Esq., President, in the Chair.

(*Continued from page 47.*)

REPORTS were read on Mr. Moore's case of cancer from the Committee on Morbid Growths, and on Dr. Fuller's specimen of degenerated heart (it proved to be syphilitic) by Drs. Wilks and Bastian.

Dr. DICKINSON showed some drawings of the

CHANGES INDUCED IN THE KIDNEYS BY DEPURATIVE ACTION (AMYLOID DEGENERATION),

showing how different the appearances were in different instances, although always giving the same reaction. Probably there was first inter-tubular effusion with enlargement, subsequently contraction, with, it might be, a granular appearance.

Mr. J. CROFT showed a specimen of

MALFORMED UTERUS AND RECTUM

removed from a child who lived four days. There was complete atresia, and an exploratory incision about two inches deep was made, but no rectum was discovered. After death the uterus was found greatly enlarged, divided into two incomplete chambers by a partition, and communicating by narrow orifices with the bladder and rectum, so that it was filled with fæces and urine. The cornua were dilated and separated from the body of the uterus.

Mr. CURLING remarked that although he had made the subject of malformations of the rectum a special study, he had not seen such a specimen.

Mr. CROFT then produced a specimen of

CANCER OF THE PROSTATE

projecting into the rectum, although situated on the front of the gland. A catheter was passed for retention of urine, and the man died eighteen days after the operation from multiple abscesses in every part of the body, yet he had no rigors. Specimen referred to the Committee.

A third specimen of deformity of the finger was exhibited by Mr. Croft. A portion of the bone of the metacarpal phalanx had died whilst the other side continued to grow, so that the bone became twisted round, and had to be removed.

Mr. DE MORGAN exhibited some extraordinary specimens of

BONE FROM A PATIENT WHO HAD SUFFERED FROM RHEUMATOID ARTHRITIS.

The man, aged 44 at the time of his death, had come under Mr. De Morgan's notice fifteen years ago; he then had a swollen knee, but suffered little pain. He fell some time after going out, and was taken to University College Hospital. His thigh was broken, and the fracture never united, although the great trochanter became enormously enlarged, and, in fact, supported the body by the pelvis resting on it. About four years ago his elbow began to swell, and its bones became loose, so that they could be twisted in any direction, yet there was no tenderness, and scarcely any pain. He suffered slightly from rheumatism, and his digestion was very bad; otherwise there seemed to be little the matter with him except in the joints. He died from exhaustion, when cancer of the pylorus was discovered, and his kidneys were found to be disorganised. His urine was never albuminous, but it only contained about one-third the normal quantity of urea, along with much phosphates.

Mr. CURLING suggested that a few casts should be made of these unique specimens.

Mr. W. ADAMS remarked that they appeared to confirm his views as to such formations being exogenous rather than endogenous.

Dr. C. BASTIAN exhibited some specimens of

LUNG AFFECTED WITH TUBERCULAR PNEUMONIA.

There was no tubercle to be seen in the body, yet the habit and appearance of the patient were tubercular rather than strumous. Both lungs were affected, their upper lobes being consolidated and broken into cavities; but the right lung in its lower portions only exhibited some specks like miliary tubercle, possessed, however, of a different structure. The intestines were also ulcerated, yet there was no tubercle in them.

Mr. DE MORGAN told how a lad sprained his elbow so that the olecranon died and was removed, but all other parts, being healthy, were left untouched. A strong solution of chloride of zinc was applied to the cartilage; the wound healed well, and the elbow has now almost recovered its normal figure.

CLINICAL SOCIETY.

FRIDAY, JANUARY 10.

Sir THOMAS WATSON, Bart., President, in the Chair.

THE following gentlemen were elected members of the Society:—Dr. Beigel, Dr. Bright, Dr. Cholmeley, Mr. Lockhart Clarke, Dr. Heslop, Dr. Constantine Holman, Mr. Kesteven, Dr. John Murray, Mr. Purnell, Dr. Rendle, and Dr. Whipham.

After an introductory address from the President,

Mr. MAUNDER read the history of a case of

PARTIAL RESECTION OF THE SHOULDER JOINT,

and referred to the desirability of deferring such operations as long as possible, except in cases in which life is endangered. In respect to the time for operating, he noticed the difference between these cases and those requiring resection of the elbow. In the case of disease of the latter joint, he would operate comparatively early, because in the majority of instances he would expect a more useful result than if the disease ran its natural course and terminated in anchylosis. He recommended the single longitudinal incision in front of the joint as preferable to others.

Dr. MORELL MACKENZIE communicated three cases of

EXOPHTHALMIC GOITRE,

in all of which the characteristic symptoms of the disease, palpitation of the heart and throbbing of the carotid arteries, were present. In one of them the signs of mitral regurgitation were present. One fatal case was complicated with epileptiform convulsions and maniacal paroxysms, which continued until death. A fourth case was referred to in which the cardiac and arterial symptoms were absent. One of the patients was exhibited. Dr. Mackenzie observed that in all the cases goitre preceded the other symptoms of the disease. He regarded it as most probable that the disease is dependent on lesions of the medulla oblongata, which, however, may exercise their influence through the vasomotor nervous system, and drew attention to the negative results of ophthalmoscopic examinations in his cases as compared with those obtained by Geigel.

Dr. GREENHOW differed from Dr. Mackenzie as regards the dependence of the exophthalmos on the bronchocele. In a female patient, aged thirty-five, in whom the disease was evidently induced by an emotional shock, and lasted for eight years, there was at first no goitre, although all the other symptoms were well marked. This patient was successfully treated by chalybeates, completely recovering after being three or four years under observation. In this case, as in others, the weakness of the radial pulse contrasted with the violence of that of the carotid. There were frequent alternations of improvement and exacerbation, which had an evident relation to catamenial disorder.

Dr. ANSTIE also referred to the remarkable contrast between the carotid and radial pulses. He regarded it as probable that the disease had its seat in the vasomotor nervous system.

Dr. C. J. B. WILLIAMS objected to the term exophthalmic goitre, as there is often no enlargement of the thyroid. He regarded the swelling of the thyroid and the projection of the eyeballs as a mere result of the enlargement of the arteries. In most instances iron, and especially the astringent preparations in large doses, appeared to be curative. These remedies should be combined with nutritious regimen and quiet.

Dr. HANDFIELD JONES referred to a case in which sloughing of the eyeballs had occurred, on account of which the patient was placed under the care of Mr. Ernest Hart, who will narrate it at a subsequent meeting.

Dr. HYDE SALTER had observed a case in which the exophthalmic goitre appeared to be of exclusively anæmic orgin, which was also cured by chalybeates.

Dr. HERBERT DAVIS drew attention to the condition of the pupil in the disease.

The PRESIDENT remarked that, in the first case of this nature which had come under his notice, the symptoms were associated with well-marked anæmia, and that much benefit had resulted from the employment of iron.

Mr. NORTON exhibited a case of

ELEPHANTIASIS OF THE LEG BELOW THE KNEE.

Under the influence of tight bandaging, and by the use of iodide of potassium, the size of the limb had been gradually reduced.

The meeting was adjourned at 10 p.m.

NEW INVENTIONS.

CURTIS'S INHALER.

(*Sold by Messrs. Curtis*, 48, *Baker-street.*)

DURING the present epidemic of scarlet fever, a good inhaler is of the greatest possible service to Practitioner and patient. Inhalers are constructed on the principle of passing the air that is inhaled through a certain depth of hot water, which may be impregnated with any given medicinal substance; or the air, mixed with the vapour of the hot water, may take up the medicinal element from a sponge. The inhaler before us possesses the merit of cleanliness and portability, and of being easily used by a patient in bed without the risk of being upset. The use of an india-rubber ring instead of cork to connect the flexible tube to the neck of the inhaler is ingenious, and looks as if it might be made useful under other circumstances.

PRICE'S SOLIDIFIED GLYCERINE.

By a new process Messrs. Price have been enabled to prepare a soap containing a proportion of glycerine much greater than is possible by the ordinary methods. The resulting compound forms one of the most soothing forms of soap we have seen; being less irritating to the skin, it may be used in diseases where the ordinary hard alkaline soap would be inadmissible. It also constitutes an admirable shaving compound.

LECTURER ON PATHOLOGY AT ST. MARY'S HOSPITAL.—At a meeting of the School Committee on Tuesday afternoon, Mr. Joseph Frank Payne, B.A., B.M. Oxon., B.Sc. Lond., was unanimously recommended for the vacant offices of Pathologist and Curator. The recommendation of the committee is all but equivalent to election, for though it has to be confirmed by the governors, it is usual to elect the candidate recommended by the committee. Mr. Payne is a Fellow of Magdalen College, and Radcliffe Travelling Fellow of the University of Oxford. He presented testimonials from Drs. Acland, Rolleston, T. K. Chambers, Barclay, J. Ogle, Mr. T. Holmes, and from Herr Dr. Carl Wedl, Professor of Histology in the University of Vienna, Herr Dr. Brücke, Professor of Physiology, in the same University, and from Herr Scheuthauer, first assistant to Professor Rokitansky. Besides his testimonials, he submitted to the committee a number of excellent microscopical pathological specimens, which were carefully examined by the members of the committee.

OBITUARY.

DR. W. THISELTON DYER.

In Dr. W. Thiselton Dyer the Profession has lost one of its best educated, polished, kindly-natured, and universally beloved members. His life was passed amongst a large circle of friends and patients, yet it was marked by few important incidents. He was born in London, September 27, 1812. It was intended that he should be educated at Westminster, but weak health prevented his ever entering that school. He studied Medicine at the then University of London, now University College, and Bartholomew's Hospital, and there enjoyed successively the teaching of two of the foremost scientific men of that time, Sir Charles Bell and Mr. Lawrence. Under Mr. Lawrence he was House-Surgeon. Before commencing active practice he resided for five years in the family of Sir Francis Burdett as Medical attendant. In 1860, wishing to relinquish the more active duties of general practice, he graduated at St. Andrews University. He repeatedly served the office of Examiner to the Society of Apothecaries, and during the last year and a half was chairman of the Court. In private practice he was very successful in obtaining the confidence of his patients, by many of whom he will be deeply lamented as a most intimate friend. He was a good artist, and a great man amongst Freemasons. Of late years his health had been gradually giving way, but so steadily did he resist the ever-increasing symptoms of disease, that it was not apparent till he finally broke down how much he had suffered in the conflict. At several periods he has had severe attacks of rheumatic fever, which laid the foundation of the disease of the heart which, complicated with liver affection, carried him off. His last illness lasted more than eight weeks, and, though exceedingly wearisome from constant sickness, was borne with extreme patience. He suffered little pain, and passed away as into a quiet sleep, a little after midnight, in the night of January 14.

NEW BOOKS, WITH SHORT CRITIQUES.

On the Pathology and Treatment of Albuminuria. By W. Howship Dickinson, M.D. Cantab., F.R.C.P., Assistant Physician to St. George's Hospital, and to the Hospital for Sick Children. London: Longmans. Pp. 266.

*** We have had many works on the subject of urinary diseases, as those of Beale and Roberts, and the admirable lectures of Dr. Harley, published in this journal; all of these, however, for the most part approached the subject from the chemical side, and one dealing more with pathology was requisite. This want the admirably illustrated volume of Dr. Dickinson will fully supply, and without at all entering into the subject of this gentleman's views as to the nature and origin of Bright's degeneration, we may venture to say that there is no one who will not feel grateful for the beautiful illustrations and clear descriptions of renal disease this work contains.

Outlines of Physiology, Human and Comparative. By John Marshall, F.R.S., Professor of Surgery in University College, London, and Surgeon to University College Hospital. Two vols. London: Longmans. Pp. 607 and 699.

*** Well known as a careful Surgeon and an admirable clinical teacher, Mr. Marshall is, perhaps, even better known as a man of science. If anything was necessary to more fully demonstrate the fact, we imagine that the publication of the work whose title is given above would amply suffice, for it is one of great weight and value. Mr. Marshall evidently aims at making his work more extensively available than such merely are, for he introduces his subject by giving a short sketch of human anatomy, which, were the work intended for Medical students alone, would, we think, be unnecessary. In one respect the work is weak where we should have least expected it—the figures are too small in some instances to give a satisfactory notion of the thing figured. Unlike most writers, Mr. Marshall commences with the physiology of the animal functions, treating of those of vegetation in the second volume. Every portion of the work is full, and the parts relating to comparative physiology are of especial interest. A general idea of the different tissues contained in the body is given by referring to the tongue of the sheep, a thing very readily procurable.

On the Diagnosis and Treatment of the Varieties of Dyspepsia. By Wilson Fox, M.D. Lond., F.R.C.P., Hulme Professor of Clinical Medicine and Physician to University College Hospital, London. Second edition. London: Macmillan. Pp. 247.

*** It is with great pleasure that we announce the appearance of a second edition of Dr. Wilson Fox's excellent work. We have already spoken of it in such high terms that no further eulogy is needed at our hands. We may, however, remark that several alterations have been effected in the present edition, somewhat increasing the former bulk of the book.

The First Step in Chemistry. By Robert Galloway, F.C.S., Professor of Applied Chemistry, Royal College of Science for Ireland, etc. London: John Churchill and Sons. Pp. 377. Fourth Edition.

*** The value and simplicity of this elementary book have been shown by the rapidity with which it has passed through former editions. The present one is enriched by enlarged and otherwise improved, and a chapter on the new elements is added. We would recommend this chapter to our readers as containing one of the best resumés of the subject we have seen.

On Spinal Weakness and Spinal Curvatures. By W. J. Little, M.D., late Senior Physician and Lecturer on the Practice of Medicine, London Hospital, etc. London: Longmans. Pp. 121.

*** In this little work Dr. Little seeks rather to convey his own opinions than to descant on those of others (it is probably all the more valuable for this very reason); he has also discarded diagrams for letterpress. To this last statement we must, however, make one exception, as he has, in an appendix, given several valuable figures representing the forms of spinal curvature produced by contraction of the chest, the result of pleurisy.

On the Ventilation of Dwelling-houses, and the Utilisation of Waste Heat from Open Fireplaces. By F. Edwards, jun. London: Hardwicke. Pp. 168.

*** Mr. Edwards, well known as an enthusiastic worker on this subject, has given in this work not only an historical account of ventilation, with notices of the various controversies which the subject has given rise to, but has also admirably illustrated the various plans recommended for obtaining effectual ventilation.

Half-yearly Abstract of the Medical Sciences. July to December, 1867. London: John Churchill and Sons. Pp. 72.

Braithwaite's Retrospect of Medicine. July to December, 1867. London: Simpkin, Marshall, and Co. Pp. 407.

*** Both these well-known volumes make their appearance as usual. Of them it may be said that if the one be the more scientific, the other is the more practical. In either department it is pleasing to believe that our columns have contributed even more than their due share.

The Bath Waters: their Uses and Effects. By James Tunstall, M.D., M.R.C.P., Physician to the Bath Mineral Water Hospital, etc. Fourth edition. London: John Churchill and Sons. Pp. 164.

*** The new edition of this useful book has been carefully revised.

The People's Magazine.

*** Contains an article on the Faculty of Hearing, which is thoroughly scientific in tone, carefully accurate in the statements made, and is evidently written by one who knows what he is writing about. The writer, whilst telling his readers what simple precautions they may adopt, and what foolish interferences with their ears they should avoid, does not err by indulging in a noxious spirit of utilitarianism—too common in popular writings on such subjects—which tries to make "every one his own doctor." If the articles which follow are equally good, the *People's Magazine* will, we feel sure, do good service by rousing a scientific curiosity on biological matters.

Organic Philosophy. Vol. II. Outlines of Ontology: Eternal Forces, Laws and Principles. By Hugh Doherty, M.D. London. 1867.

*** As we have no right to review a book which we are utterly unable to understand, we shall, in order to avoid unintentionally misrepresenting our author's views, content ourselves with giving one or two illustrations of his style, and must recommend those of our readers who wish to study Dr. Doherty's views more fully to have recourse to the original work.

"The individual human soul exists successively in four distinct worlds or states, thus:—

Spiritual world	. .	Invisible reminiscent state
Lymbic world	. .	{ Decarnative reminiscent state { Incarnative obliviscent state
Natural world	. .	Visible obliviscent state.

And in all these states the preconscious potentialities are the same, while the experiential degrees of evolution may be very different" (P. 129.)

"What are the archetypal ideas of creation in the new philosophy? Are they crystallomorphic? phytomorphic? zoomorphic? anthropomorphic? or are they merely chaotic and amorphic?" (P. 130.)

Dr. Doherty is evidently a well-read man, as is shown by the number and variety of his quotations; and we regret that he cannot expound his views in a more intelligible style. What these views are, we have learnt rather from the preface than from the body of the work:—"The human body is a type of integrability—a key to the unity of science and the interpretation of nature. To verify this, we have analysed the realms of life and organisation—the data of episcomology—in the first volume of 'Organic Philosophy;' the main divisions of Ontology in this." We trust that, having achieved this great object, Dr. Doherty will now repose on his laurels.

The Great Sulphur Cure brought to the Test; and Workings of the New Curative Machine proposed for Human Lungs and Windpipes. By Robert Pairman, Surgeon, Biggar. Preface by the Rev. J. Christison, A.M., Minister of Biggar. Eighth Edition. Edinburgh. 1867.

*** We have received from some unknown friend a copy of the very remarkable pamphlet bearing the above title. It is remarkable in various points of view—first, in the fact that, although written by a comparatively unknown country Practitioner, hitherto undistinguished as an author (for the latest edition of the *Medical Directory* merely records of him as follows:—"Pairman, Robert, Biggar, Lanarksh., L.R.C.S. Edin. 1838"), it has in less than eight weeks reached its eighth edition—a fact almost unparalleled in the annals of Medical literature; secondly, in being written, not as a quiet, sober essay addressed to the Medical Profession, but in the form of "a free-and-easy letter to the Rev. J. Christison, A.M., minister of Biggar," on the ground that he "takes a deep interest in the parish;" and, thirdly, for the style in which it is composed, which is, in the author's own words, "pithy, without polish, or, as some editors call it, 'inclining to the jaunty.'" He does full justice to Dr. Dewar, and to his credit adds that "the mission of my pamphlet has certainly been accomplished if it has aided in pushing into wider circulation its senior brother, which sooner or later must have forced its way, by its own merits, into all the libraries of the Profession" (p. 7).

HEART PULSATIONS INDEPENDENT OF NERVOUS SYSTEM.—It would seem, from a paper recently published by Herr Schenk, that in the embryo the pulsation of the heart is quite independent of the nervous system. Herr Schenk states that when the heart of the chick three days old is removed and maintained at a temperature of about 35° C., it continues to beat. Even when cut to pieces, the separate parts for some time keep up an alternate contraction and relaxation. These portions, when placed under the microscope, do not appear to possess even the most rudimentary traces of nervous ganglia(!).

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following gentlemen obtained the Licences in Medicine and Midwifery, in October, November, and December last :—

Carroll, Thomas Edward, Dundalk
Curran, Edward Joseph, Enniskymen.
Dodd, William Henry, Kilbeggan.
Eames, Henry, Dublin
Fitzgibbon, Frederick, Rosscarbery.
Frazer, Peter Thomas, Donaghmore.
L'Estrange, Albert H., Rathmines.
L'Estrange, Francis Adolphus, Rathmines.
Macken, Richard, Dublin.
Molloy, Matthew Henry, Dromore
Riordan, Hussey De Burgh T., Youghal.
Robinson, Robert Henry, Parsonstown.
White, Hugh Brady, Kilmoylan.
Wilkin, Thomas John, Lisbellaw.
Williams, Evan, London.

The following obtained the Licence to practise Medicine :—

MacCarthy, Richard Vincent, Dublin.
Moore, Wm. Daniel, Dublin.
Thornton, Daniel, Kinnegty.
Torney, Thomas, Dublin.

The following obtained the Licence in Midwifery :—

Brown, John, Dublin.
Fitzpatrick, John Francis, Mallow.
McDermott, William Marcus, Foxford.
Purcell, Thomas, Dublin.
Wood, George Vesey, Rathgar.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen (students of the Schools indicated) passed their primary examinations in Anatomy and Physiology, at a meeting of the Court of Examiners on the 11th inst., and when eligible will be admitted to the pass examination :—

Barker, R. H., St. George's Hospital.
Bonlton, G. S., Guy's Hospital
Chabot, Herbert, Guy's Hospital.
Deane, John, University College.
Gibson, J. C., King's College.
Goodsall, D. H., St. Bartholomew's Hospital
Goude, Herbert, St. Bartholomew's Hospital.
Hallam Arthur, Sheffield School.
Hogg, A. J., St. Bartholomew's Hospital.
Holroyd, W. S., St. George's Hospital
Inches, P. R., King's College
Joseph, J. R., Guy's Hospital.
Kidger, A. A., King's College
Lee, E. S., St. George's Hospital.
McLarty, Duncan, Canada.
Matthews, J. F., Middlesex Hospital.
Meckle, W. J., Cumbria
Miller, F. M., St. Thomas's Hospital
Nethercliff, W. H., Charing-cross Hospital.
Patton, E. H., Canada.
Phillips, E. A., University College
Ranger, W. G., St. Thomas's Hospital
Rudge, C. K., Bristol.
Sharp, G. G., Bristol.
Sheard, William, King's College
Turner, H. G., Guy's Hospital
Turner, T. B., Charing-cross Hospital.
Walford, Edward, St. George's Hospital.

The following passed on the 15th inst. :—

Alabone, E. G., London Hospital
Blackmore, J. R., St. Bartholomew's Hospital
Chambers, J. L., London Hospital.
Chetwood, William, St. Bartholomew's Hospital.
Gilhooley, R. J., Dublin School.
Hamilton, David, Edinburgh.
Kenney, David, St. Thomas's Hospital.
Lafargue, Paul, St. Bartholomew's Hospital.
Lawson, Archibald, King's College.
May, Bennett, Birmingham School.
Pearse, F. J., Westminster Hospital.
Robertson, E. B. B., Guy's Hospital
Scobell, Henry, St. Bartholomew's Hospital.
Tait, G. W., Birmingham School.

It is stated that on the first day of the examination, eight candidates failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for three months, together with thirteen who failed on the second day, making a total of twenty-one out of sixty-three candidates. The next Pass or Surgical and Pathological Examination for the diploma of Membership will take place this day, Saturday.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 9, 1868 :—

Garrod, Alfred Henry, 14, Harley-street, W.
Nathan, Henry Frederick, Royal Naval Hospital, Malta.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRUCE, JOHN, M.D., M.A., L.F.P.S.G.—Certifying Factory Surgeon for the Districts of Pentonville, Islington, Highbury, Holloway, Hoxton, Ball's-pond, Newington, and Kingsland-road.

COOKE, JAMES WOOD, M.R.C.S.E.—House Surgeon to the North Devon Infirmary, vice M. A. J. Newman, M.R.C.S.L., L.S.A., resigned.

DAVIS, WILLIAM EDWARD, M.R.C.S., L.S.A.—Junior House Surgeon to the Southern Hospital, Liverpool, vice Alfred Trubshaw, M.R.C.S., etc.

FENNELL, T., M.R.C.S.E.—Senior House Surgeon to the Royal Infirmary and Lunatic Hospital, Manchester.

MCCARTHY, J., late Resident Medical Officer, St. Mary's Hospital, Manchester—Assistant-Surgeon, Royal Navy.

PEACOCK, Mr.—Apothecary and Assistant Secretary to the West London Hospital, Hammersmith.

RAINY, GEORGE, M.D.—Surgeon to the Glasgow Eye Infirmary.

RAINY, HARRY, M.D.—Physician to the Glasgow Eye Infirmary.

REID, THOMAS, M.D.—Surgeon to the Glasgow Eye Infirmary.

RESDON, R., M.R.C.S.E.—Surgeon-Dentist to the Victoria Hospital for Sick Children, Queen's road, Chelsea.

SAWYER, J., M.B.—Resident Physician to the Queen's Hospital, Birmingham.

TRUBSHAW, ALFRED, M.R.C.S., L.S.A., late Junior House-Surgeon to the Southern Hospital, Liverpool—Senior House Surgeon to the same institution, vice Edwards Gibson Wolfenden, M.D., etc.

WOLFENDEN, T. GIBSON, M.D., M.R.C.S.E., L.S.A., Associate of King's College—Honorary Surgeon to the Liverpool Southern Hospital, vice Mr. Higginson, whose period of service has expired.

BIRTHS.

AUSTIN.—On January 10, at Val-de House, Romsgate, the wife of J. Austin, Surgeon, R.N., of a son.

COOKE.—January 14, the wife of W. B. Cooke, M.D., of a son.

GRAVES.—On January 12, at 1, Westbourne villas, Hyde park, the wife of F. G. Graves, M.D., of a daughter.

LONG.—On January 14, at Wells-next-the-Sea, Norfolk, the wife of F. Long, M.R.C.S., of a son.

PARSONS.—On January 7, at Oldbarrack street, Bristol, the wife of Jas. Grige Parsons, L.R.C.P.Edi., F.R.C.S., of a daughter.

STURTON.—On January 11, at the Royal Kent Dispensary, Greenwich, the wife of H. W. Sturton, M.R.C.S.E., of a son.

WATTS.—On January 6, at Liverpool, the wife of J. Watts, M.R.C.S., of a son.

MARRIAGES.

BELL—COTES.—On January 2, at Christ Church, Gloucester, G. C. Bell, M.D., Surgeon, Bombay Army, to Henrietta Elizabeth, youngest daughter of the late H. Cotes, Esq., Surgeon, Bombay Medical Service.

KING—WOLTON.—On January 15, at Camden Church, Camberwell, by the Rev. Daniel Moore, M.A., incumbent of Holy Trinity, Paddington, assisted by the Rev. James Fleming, B.A., incumbent of Camden Church, Thomas William King, Esq., M.D., eldest son of Thomas Kirwan King, Esq., M.D., of 2, Portland-place, Camberwell, to Sophia, second daughter of John Hyem Wolton, Esq., of Woodlands, Peckham Rye. No cards.

PEARSON—RITSON.—On January 9, at St. Cuthberts, Benfieldside, Durham, Dr. T. R. Pearson, of Stowmarket, Suffolk, to Jane, third daughter of W. Ritson, Esq., Springfield House, Shotley-bridge, Durham.

PHELPS—CARDREW.—On January 9, at St. Leonard's Church, Exeter, F. Phelps, M.A. Oxon., M.R.C.S., to Fanny, youngest daughter of C. Cardrew, Esq., late Bengal Civil Service.

SHOOLBRED—PAICE.—On January 9, at St. Michael's Church, Basingstoke, J. Shoolbred, M.D., to Ellen, fourth daughter of the late Mr. W. Paice. No cards.

TANNER—STANGRAVE.—On January 9, at Trinity Church, Newington, J. Tanner, M.D., of Alfred House, Newington-causeway, to Esther, daughter of the late J. Stangrave, Esq., New Kent-road. No cards.

DEATHS.

DYER, W. G. T., M.D., at No. 7, Berkeley-street, Berkeley-square, aged 55.

IRVINE.—On January 12, at Portsmouth, Anne Catherine Irvine, relict of the late Samuel Irvine, M.D., Deputy Inspector-General of Hospitals, R.N.

LENNARD, C. G., M.R.C.S., at 225, Old Kent-road, on January 9, aged 33.

LOMAS, R., M.D., at Richmond, on January 11, aged 80.

REILLY, C., M.R.C.S.E., of Charlotte-street, Bedford-square, on January 3, aged 62.

TRAGAIR, T. G., M.D., of 1, Eccleston square, London, at Hyères, South of France, on January 6.

VACANCIES.

GLASGOW EYE INFIRMARY.—Assistant-Surgeoncy

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, MARGARET-STREET.—Visiting Physician

MANCHESTER ROYAL EYE HOSPITAL.—House Surgeon and Secretary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS

Boston Union.—The Sibsey District is vacant; area 15,297; population 3213; salary £55 per annum.

Glendale Union.—Dr George Wilson has resigned the Lowick District; area 19,704; population 3120; salary £16 per annum.

Tenterden Union.—Mr. Orlando Hoveland has resigned the Benenden District; area 7201; population 1412; salary, £40 per annum.

Ogbourne Union.—The Rushop District is vacant; area, 7090; population 1300; salary £40 per annum.

APPOINTMENTS.

Bakewell Union.—John Knox, M.D. Aber., M.R.C.S. Edin., to the Hartington Middle Quarter District.

Newmarket Union.—Richard Cockerton, M.R.C.S.E., L.R.C.P. Edin., to the Eighth District.

THE COLLEGE LECTURES.—The course of lectures annually delivered in the Theatre of the Royal College of Surgeons will be commenced this year on Monday, the 3rd proximo, by Professor Huxley, F.R.S., who will deliver twenty-four lectures "On the Anatomy and Physiology of Invertebrate Animals." The course will be completed by Professor F. Le Gros Clark, who will deliver six lectures "On the Principles of Surgical Diagnosis, especially in relation to Shock and Visceral Lesions."

THE MERCANTILE NAVY.—The following appointments of inspectors of antiscorbutics, under the Merchant Shipping Act of 1867, have been made:—For the port of Liverpool, Dr. C. A. Holcombe; London, Mr. Harry Leach, of the *Dreadnought;* Sunderland, Dr. W. O. Lambert; Falmouth, Dr. A. B. Harris; Southampton, Dr. J. Broster; Glasgow, Dr. J. Reid, R.N.; Cardiff, Dr. F. V. Sandford; and Lerwick, Dr. R. Cowie.

PROFESSOR WHEATSTONE.—It is understood to be the intention of Government to confer Knighthood on Professor Wheatstone, in consideration of his great scientific attainments and of his valuable inventions.—*Pall-mall Gazette.*

PROFESSOR FARADAY'S LIBRARY will be sold early next month by Messrs. Puttick and Simpson, at their rooms in Leicester-square.

DR. T. BISHOP, M.R.C.P., who practised for some years at Naples, has removed to Paris, having obtained from the Emperor a decree authorising him to practise "dans toute l'étendue le l'Empire." Dr. Bishop, whose interesting note "On the Deodorising Properties of Dry Earth" appeared in our number for January 4, is succeeded at Naples by Dr. G. R. Wyatt, an old King's College (London) man, who for some years practised at Oxford.

THE Examiners for the Radcliffe Travelling Fellowship give notice that the next examination will commence on Monday, February 3, at 10 a.m., in the Museum. Candidates are requested to forward notice immediately to Dr. Acland of their intention to present themselves.—H. W. Acland, D.M.; G. Rolleston, D.M.; and B. C. Brodie, M.A., examiners.

THE lying-in wards at King's College Hospital which went by the name of Miss Nightingale have been closed, owing to the enormous mortality. Their endowment from the Nightingale Fund ends with their closure. There is now an entirely new set of nurses throughout the wards, the old ones having retired, owing to religious differences with their own chaplain.

THE POLLUTION OF RIVERS COMMISSIONERS, Mr. R. Rawlinson, C.B., Mr. J. J. Harrison, and Professor Way, commenced their inquiry at Liverpool, on Tuesday, by investigating the condition of the basins of the rivers Mersey and Ribble.

SANITARY REPORT ON THE CITY OF LONDON.—Dr. Letheby's nineteenth report has been presented to the Commissioners of Sewers. The City seems to have had an unusually low death-rate during the past twelve months. In his report Dr. Letheby alludes to the water-pollution theory of cholera, which he endeavours to confute.

THE SUFFERERS IN ST. BARTHOLOMEW'S AND ROYAL FREE HOSPITALS.—The last report says all are progressing favourably except a poor little fellow five years old, who is incurably blind, and "who lies constantly with his eyes to the pillow, as if lost to this world." The out-patients from the explosion are, with a few exceptions, no longer under treatment.

THE SANITARY COMMISSION OF CONSTANTINOPLE, which has been operating under the supervision of Halil Effendi, has published its report. This Commission was appointed by the Turkish Government, under the direction of the International Commission. Sanitary posts have been established at Djeddah, Mecca, Medina, and other halting-places of the Eastern pilgrims. The report states that, owing to the machinery of inspection carried out, the Hedjaz, which has hitherto been a regular cholera nest, has during the past year been nearly entirely free from epidemic diseases, although the number of pilgrims who visited Mecca and Medina in 1867 was nearly 70,000.

AT the annual general meeting of the Medical Benevolent Fund, held on Tuesday, the 14th inst., Dr. Hare was unanimously elected Treasurer in the place of Dr. Sieveking, who resigned this office; and Dr. Thorne Thorne was appointed Hon. Secretary in conjunction with Dr. Broadbent. The report states that in the course of the year 106 cases of distress have been relieved by grants of money, amounting in the aggregate to £902, and the number of annuitants is 32.

ASYLUM FOR IDIOTS, EARLSWOOD.—On Thursday, the 9th inst., the new year's *fête* of this institution took place, when the usual dramatic entertainment, so successfully inaugurated eight years since by Dr. Langdon Down, the Physician-Superintendent, was most admirably carried out by the highly efficient staff of officers and attendants by which he is supported. The whole of the scenic arrangements were prepared by the officers of the establishment, and the inmates (numbering 460) are found to be influenced most favourably by the powerful mental stimulus which the institution, by this and similar arrangements, so frequently provides.

MEDICAL CHARITIES.—The funds of the following institutions have just been augmented under the will of Mr. Jabez Legg, of Stratford, Essex, who has bequeathed £100 each to the West Ham, Stratford, and South Essex Dispensaries. Mrs. Elizabeth Bond, of Devonshire-place, has bequeathed to the Middlesex Hospital £100; the Newman-street Lying-in Institution, £50; the Charing-cross Hospital, £50; the Consumption Hospital, Brompton, £100; and the St. Marylebone General Dispensary, £50. Mrs. Maria Otley, of Little Gonerby, has bequeathed to St. George's Hospital £70; to the Lincoln Hospital, £50; the Lincoln Lunatic Asylum, £50; and a like amount to the Hospital for Diseases of the Skin. Each of these benevolent individuals has left liberal bequests to other institutions not strictly Medical.

THE SCALDED INFANT AT WIGAN.—The result of the coroner's inquest was, that the idiot Dawber, who so brutally killed the child committed to her charge, has been taken into custody. The evidence revealed the oft-complained-of system of nursing in pauper infirmaries—two of the nurses were idiots, one was paralytic, and a fourth, aged eighty-one, was too weak to carry a child across the ward. The Government inquiry which has been held into the charges of mismanagement has resulted in a demand that the governor shall resign. This is a step which all will think right, though it is tardy justice to the poor.

THE MANAGEMENT OF LUNATICS.—An inquest just held at the Abergavenny Joint Lunatic Asylum shows how little restraint is sometimes exercised over really dangerous lunatics. One of the inmates of the Asylum, a Mrs. Mullard, was found strangled in bed. It was stated in evidence that the apron found on the neck of the victim was that of another patient, who said that hearing Mrs. Mullard "praying to God" she thought "she would send her to him at once." Notwithstanding this important circumstance, the jury, with proverbial intelligence, returned a verdict that "the deceased died from suffocation, but how caused there was no evidence to show."

ARSENIC IN PHTHISIS.—In a paper recently read at the Académie de Médecine, M. Moutard-Martin arrives at the following conclusions:—1. Arsenic exerts a very positive action in pulmonary phthisis. 2. It is more efficacious in the slow and torpid form than in that which is accompanied by fever. 3. Rapid phthisis and the acute granular form undergo no modification under it. 4. In a great number of cases, even in advanced phthisis with hectic, the general condition of the patient is ameliorated, at least for a certain time, which may long continue. 5. The modifications in the local lesions are only produced at a later period. 6. In a certain number of cases a cure results, and these would be more numerous if the patients had more perseverance instead of too soon believing themselves cured. 7. In order to prove efficacious, the treatment must be long continued. 8. The quantity taken daily need not exceed two centigrammes. 9. The arsenic is tolerated best in the early stages of the disease. 10. When not carried beyond the quantity stated, the tolerance may be almost indefinitely prolonged. 11. The action of the arsenic is primarily corroborant, acting secondarily on the pulmonary lesion. —*Union Méd.*, No. 3.

ULCERATIONS OF THE VULVA AND ANUS.—M. Blachez, at the Paris Medical Society, observed that these are often very troublesome, and that their removal by ablation is very painful. In one case he found the application of acetic acid twice a day quite effectual in two or three days. M. Giraldès

said that he employed chromic acid in such cases with excellent results. M. Aimé Martin, has, however, met with a case in which death ensued after painting the parts with this substance. M. Forget and other members speak well of perchloride of iron in these cases.—*Gaz. des Hôp.*, No. 3.

PHYSICIAN'S AID.—In his "History of England during the reign of Elizabeth," Mr. Froude states that, during the seige of Leith in 1560, inquiry was made of d'Oysel as to how long he could hold out. The letter was written in cipher on the pocket-handkerchief of an adventurer, who attempted to steal with it through the English lines. Failing to communicate with him thus, Mary of Guise professed to desire medicine from a Physician who was in Leith. She sent her application to Lord Grey, and requested him to forward it. The letter was held to the fire, the invisible ink turned black, and the real contents appeared. Grey threw it into the fire, bidding the messenger tell his mistress that he would keep her counsel, but that such wares would not sell till a new market.

THE giant specimen of the Dracæna Draco, or Dragon tree, growing at Orotava, in the island of Teneriffe, was destroyed during the autumn of 1867 by a gale of wind. It was first brought into general notice by Humboldt some sixty years ago, and was computed by him to be 6000 years old. It had, however, been previously noticed in 1795 by Sir George Staunton, and in 1771 by T. C. Borda, a Frenchman, whose drawing of the monstrous tree was subsequently published by Humboldt. In July, 1819, a storm deprived it of part of its crown, and a large and good English engraving of it was published after its mutilation. Webb, in his splendid work on the "Natural History of the Canaries," describes it and gives its measurements, and it has since afforded a theme for the pen of almost every traveller who has visited Orotava. Its destruction during the gale of last autumn was complete.

THE IDENTITY OF THE BODY IN THE ATMOSPHERE WHICH DECOMPOSES IODIDE OF POTASSIUM WITH OZONE.—Dr. Andrews, of Belfast, the veteran worker on ozone, in a communication brought before the Royal Society, says:—"It was assumed for many years, chiefly on the authority of Schönbein, that the body in the atmosphere which colours iodide of potassium paper is identical with ozone; but this identity has of late been called in question, and as the subject is one of considerable importance, I submitted it lately to a careful investigation. The only property of ozone, hitherto recognised as belonging to the body in the atmosphere, is that of setting free the iodine in iodide of potassium; but as other substances, such as nitric acid and chlorine, which may possibly exist in the atmosphere, have the same property, no certain conclusion could be drawn from this fact alone." To prove their identity, Dr. Andrews tried various plans all tending to establish his point, but the following is the most conclusive of these. The action of heat furnishes the most unequivocal proof of the identity of the body in the atmosphere with ozone. Dr. Andrews formerly showed that ozone, whether obtained by electrolysis or by the action of the electrical brush upon oxygen, is quickly destroyed at the temperature of 237° C. An apparatus was fitted up, by means of which a stream of atmospheric air could be heated to 260° C. in a globular glass vessel of the capacity of five litres. On leaving this vessel, the air was passed through a U-tube, one metre in length, whose sides were moistened internally with water, while the tube itself was cooled by being immersed in a vessel of cold water. On passing atmospheric air in a favourable state through this apparatus, at the rate of three litres per minute, the test-paper was distinctly tinged in two or three minutes, provided no heat was applied to the glass globe. But when the temperature of the air, as it passed through the globe, was maintained at 260° C., not the slightest action occurred upon the test-paper, however long the current continued to pass. Similar experiments with an artificial atmosphere of ozone, that is, with the air of a large chamber containing a small quantity of electrolytic ozone, gave precisely the same results. On the other hand, when small quantities of chlorine or nitric acid vapour, largely diluted with air, were drawn through the same apparatus, the test-paper was equally affected, whether the glass globe was heated or not.

UTILISATION OF HUMAN EXCRETA AT NICE.—Smollet, writing from Nice in 1764, observes concerning the manuring of the kitchen and fruit gardens—"They have recourse to pigeons' dung and (human) ordure, which fully answer their expectations. Every peasant opens at one corner of his wall a public 'house of office' for the reception of passengers; and in the town of Nice every tenement is supplied with one of these receptacles, the contents of which are carefully preserved for sale. The peasant comes with his asses and casks to carry it off before day, and pays for it according to its quality, which he examines and investigates. The jakes of a Protestant family, who eat *gras* every day, bears a much higher price than the privy of a good Catholic who lives *maigre* one half of the year. The vaults belonging to the convent of the Minims are not worth the emptying."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E. C.—Accepted with pleasure. The oftener the better.

V.—Apply to the secretaries of the principal companies.

Dr. Parsey is thanked.

M.R.C.S., Euston-road.—There will be an examination for the Midwifery Licence on February 5; see our advertising columns.

A Student.—Mr Hodgson retains his seat as a member of the Council, *not* of the Court of Examiners.

The letters of *A New Subscriber* and *Applicant* only reached us at the time of going to press. The question shall be answered in our next number.

Mr. R. J. Chesterright, clerk to the Croydon Local Board of Health, will find in other columns our answer to his letter of January 8. We should like to hear from him how he could venture to quote the Registrar-General in his letter as an authority for certain statements in his quarterly returns, whereas that public officer distinctly disclaims all responsibility concerning them.

An Army Medical officer writes us a very long letter, in which he expresses himself as disagreeing with us in nearly all that we have said about his department. He says that the so-called concessions are not really such; and he evidently considers that the correspondent of the *Army and Navy Gazette* was not so far out when he complained of being made "a laughing stock on parade and a nonentity at the mess table." We confidently refer our readers to our remarks on this and other subjects, and leave the decision in their hands. The Government has simply carried out the recommendations of the late Committee. We are not likely to please all sections of the Medical service, but we may say that we have received from one of the most highly educated and best Medical officers in the British service an expression of his cordial agreement in the spirit and tone which have characterised our articles on his department, and, what is more, he expresses his regret that all the representatives of Medical opinion do not write in the same strain. The editor of this journal has no personal acquaintance with this officer, and his knowledge of him is by repute only; so one view may be set to balance the other.

Dung used as Fuel and as Food.—We have received an interesting note in reference to Inspector-General Hare's paper on dry earth sewage. It relates to the use as fuel of human dung, dried as it is by the sun's rays on the flat tops of the houses in the East. In the fourth chapter of the Prophet Ezekiel we read: "Son of man, . . . take unto thee wheat, and barley, and beans, and lentils, and millet, and fitches, and put them into one vessel, and make thee bread thereof; . . . and thou shalt eat it as barley cakes, and thou shalt bake it with dung that cometh out of man, in their sight. And the Lord said, Even thus shall the children of Israel eat their defiled bread amongst the Gentiles. . . . Then said I, O Lord God! behold my soul hath not been polluted. . . . Then he said to me, Lo! I have given thee cow's dung for man's dung, and thou shalt prepare thy food therewith." In India, we are told, the *stercus humanum* is devoured by hosts of birds and beasts, including partridges, jackasses, and, above all, the omnivorous pig. "Often," says our correspondent, "have I seen a native squatting in the open plain, and pigs with their noses up, waiting impatiently till the delicate morsel should drop from the man." No wonder the Mosaic horror of pork!

Dr. McC., Aldershot.—You will find Mr. Guthrie's lectures on some of the more important points in Surgery reported in Vol. XIV. of the *Medical Times*.

L.—The scurvy first appeared in Denmark in 1530.

L.R.C.P.—We cannot find any reference to the subject in the Roll of the College of Physicians; but in 1693 a *double* diploma was given to Dr. Silvester by the College, making him Fellow and Licentiate. Your approbation of our Notes and Queries is very gratifying.

Stiletto.—Our correspondent is, no doubt, correct. He will excuse the publication of his letter, when told that we have always found Mr. Trimmer ready to impart all *proper* information, even after the hours of business.

Dr. J. D., Devonport.—The School of Physic, Trinity College, Dublin, is under the joint government of the Board of Trinity College and of the King's and Queen's College of Physicians.

Erratum.—In our Paris correspondent's letter, which reached us last week as we were going to press, the word *Paris* was put for *Paw*, p. 45, col. 1, line 5.

Bedford-square.—The late Mr. G. D. Dermott was not a *Fellow* of the College. Dr. Michael Ryan is also dead.

Samuel Jackson, M.D.—Only three essays were sent in, one on each subject. We are informed that the awards may be expected about the end of March.

Mercantile Marine.—The following is the staff of the *Dreadnought* Hospital Ship:—*Consulting Physicians:* Dr. Budd. *Visiting Physicians:* Drs. Barnes and Ward. *Consulting Surgeon:* Mr Busk. *Surgeon.* Dr. Rooke. *Assistant Surgeons:* Mr Bedford. *Physician's Assistant and Apothecary:* Mr. Leach. The Hospital was established in 1821.

L.S.A. Lond.—About 1750 the pulvis Jacobi was in great repute. Dr. Freind's History of Physic appeared in 1725.

H. L., St. Bartholomew.—The Lock Hospital was founded in 1746 by Bromfield. The Chirurgical dispute between Bromfield and Aylitt, of Windsor, took place in 1748. Consult the works of Ricord and Acton.

L.R.C.P.—In 1674, Charles II. directed the College of Physicians not to admit any person as a Fellow who had not graduated at one of the Universities. It was in 1687 that the Marquis of Dorchester was made a Fellow of the College of Physicians. The regulation of the College of Surgeons admitting graduates of your University to the Fellowship after an examination in Surgery only has been repealed.

The following contribution towards a history of anæsthetics has been sent us for publication:—

Chronological History of Painless Surgical Operations during the Anæsthetic State induced by the Inhalation of "Narcotic and Stimulating Vapours."

The first Surgical operation during the anæsthetic condition was the reduction of a dislocation of the femur on a negro "Bob," who had rendered himself unconscious by the inhalation of the fumes from rum; Louisiana; by Dr. Collyer, December, 1839.

Extraction of a tooth from Miss Mary Allen, the unconscious state produced by the inhalation of ether combined with the fumes from burning poppy-seeds; Philadelphia; by Dr. Collyer, November, 1842.

Publication of copyright work in Philadelphia, wherein, at pages 26, 27, and 28 especial mention is made that narcotic and stimulating vapours, when inhaled, produce the anæsthetic or congestive condition; by Dr. Collyer, May, 1843.

Administration of protoxide of nitrogen gas; Hartford, Connecticut; Horace Wells, 1845.

Publication in the *Boston Medical Journal* that ether combined with opium would produce the anæsthetic state; Dr. E. R. Smilie, June, 1846.

Administration of ether by Drs. Morton and Jackson; Boston, U.S., September, 1846.

Inhalation of chloroform; Edinburgh; Dr. Simpson, 1854.

Amylene, by Dr. Snow, of London, 1857.

Bichloride of methylene; Dr. Richardson, of London, 1867.

Statham Defence Fund.

The following subscriptions have been received since last week's issue:—

	£	s.	d.
Alabone, Alfred, Esq., Newport, Isle of Wight	1	1	0
Barkley, W., Esq.	1	1	0
Bowen, Dr. Essex, Birkenhead	1	1	0
Buller, F. Esq.	1	1	0
Clarkson, Dr.	0	10	6
Coats, Dr. John, Glasgow	1	1	0
Cooper, Alfred, Esq.	2	2	0
Cox, Edwin, Esq., Preston	0	10	6
Dixon, W., Esq.	0	10	6
Fleming, Dr. Glasgow	1	1	0
Fothergill, A., Esq.	0	10	6
Fothergill, Dr.	0	10	0
Fothergill, W., Esq.	0	10	6
Fox, J. J., Esq.	0	10	6
Franklyn, C. P., Esq.	1	1	0
Gamble, J. G., Esq., Stratford-upon-Avon	1	1	6
Hilton, J., Esq.	2	2	0
Jackson, Dr.	0	10	0
Jepson, Dr. Alfred, Leamington	1	1	0
Lintott, W. H., Esq.	1	1	0
Luke, Dr.	1	1	0
Marsden, Alex., Esq.	1	1	0
McAdam, G. C., Esq., Hereford	0	10	6
Merryweather, J., Esq.	2	2	0
Normansell, F., Esq.	1	1	0
Parkinson, E. P., Esq., Brighton	0	10	6
Pratt, R., Esq.	0	10	0
Rogers, Henry, Esq.	1	1	0
Smith, Protheroe, Esq.	2	2	0
Wallis, A. W., Esq., Brentwood	1	1	0
Walker, S., Esq.	0	10	6
West, Dr.	1	1	0
Woolfryes, H. A., Esq.	1	1	0

Contributions continue to be received by the following gentlemen, members of the Executive Committee:—Dr. Richardson, F.R.S., 12, Hinde-street, W.; Dr. Cholmeley, 40, Russell-square, W.C.; Samuel Cartwright, Esq., 32, Old Burlington-street, W.; W. A. Harrison, Esq., 10, Keppel-street, Russell-square, W.C.; Edwin Saunders, Esq., 13A, George-street, Hanover-square, W., honorary treasurer; and Charles James Fox, Esq., 27, Mortimer-street, Cavendish-square, W., Honorary secretary.

The Earth Closet System.

To the Editor of the Medical Times and Gazette.

Sir,—I have perused with much interest Dr. Hare's excellent article on "Dry Earth Sewage," and, without wishing for one moment to disparage his admirable improvement of the dry earth closet, I think that every one would like to hear from his experience, or that of your readers, as to how the above plan has been found to answer in epidemics of diarrhœa and cholera, where the earth must be oversaturated with the copious watery evacuations. Would there not be more danger of cholera contagion; and, consequently, would it be considered advisable, in private dwellings, to supplement entirely the present system of water by dry earth closets? I am, &c. F. F. L.

Tincture of Actea Racemosa.

To the Editor of the Medical Times and Gazette.

Sir,—May I take the liberty of drawing the attention of the readers of the *Medical Times and Gazette* to the therapeutical value of the tincture of actea racemosa in the leading and leading cough of consumption and bronchitis? I have for three years used this remedy largely in the out-patient room, as well as in my private practice, and consider it to be equal to morphia in allaying the cough, and superior to that drug in the absence of constipation. Hospital Physicians would confer a favour on the profession at large if they would publish their experience of it. I am, &c. A Provincial Physician.

Enlarged Nymphæ.

To the Editor of the Medical Times and Gazette.

Sir,—Will any brother Practitioner give me the benefit of his experience in the above? My case is that of a young girl, almost, but not quite, 18, fully developed, and on the point of marriage. The enlargement is sufficient to cause a protrusion beyond the labia majora of about half an inch, passing gradually into the healthy mucous membrane, both above and below. Surface is of a pink hue, almost, but not quite, true cutaneous. In fact, it might be so described, as it is not moist; very tender to touch. I thought, and think, of pulling the enlarged portions out, isolating them between the jaws of a pair of small necrosis forceps, and then shaving them clean off parallel to the blade; but notwithstanding the irritation caused by them, this plan has been refused. I do not exactly see that I can do anything else. Can any one suggest some other method? Is the hypertrophy due to vice? It did not come within my province to inquire, or see the case at all except as a Surgical one.

I am, &c. C. H. B., Medico Chirurgus.

Position in the Reduction of Strangulated Hernia.

To the Editor of the Medical Times and Gazette.

Sir,—With regard to the correspondence in reference to "position in the reduction of strangulated hernia," allow me to state that I am somewhat surprised at the statement made by your correspondent of last week, R. E. Power.

In his letter he states that, "having exhausted all the usual methods recommended for the reduction of strangulated hernia, I determined to give nature a trial, aiding her with a favourable position. To this end I placed the patient on a fracture-bed, to the foot of which I secured his feet with a flannel bandage. I then raised that end of the bed so as to bring his feet on a higher level than his head, underneath which I placed a low pillow. Thus the patient's shoulders were the lowest part of his body, from which to his feet there was a gradual upward incline." Now, I should not have noticed the peculiarity of the treatment (as I have seen it practised often) had it not been that your correspondent further states that "the mode of proceeding above described is one that I have not read of or seen tried," thus indirectly claiming for himself an originality in a method common to every student at all familiar with the principal text-books on Surgery now in use, as, e.g., "Science and Art of Surgery"—(Erichsen), "Surgeon's Vade Mecum" (Druitt), etc. Apologising for troubling you,

I am, &c. John Kershaw, L.R.C.P., etc.

Royton, Jan. 13.

The Diseases of Abyssinia.

We have received a copy of the *Times* of India, of November 14, containing a number of very interesting extracts from the journal of Dr. Blanc the companion of Mr. Rassam and Lieutenant Prideaux in their mission to the Emperor Theodorus. One of the extracts gives an account of the diseases of Abyssinia, which we should gladly have reproduced *in extenso* had space permitted. We must content ourselves with the following extracts:—

"Without exaggeration, it can be said that every Abyssinian, male and female, has been, is, or will be infected with syphilis. Out of a hundred patients, at least ninety are sufferers from former or actual syphilis. I have vainly endeavoured to ascertain the date of the first appearance of syphilis in the country, and could arrive at no satisfactory data, but feel inclined to exculpate the Portuguese, as there is but little doubt but that it existed previous to their advent. From the fact that the mercurial treatment of syphilis is unknown in Abyssinia, the various stages of the disease differ in some respects from what we observe in civilised lands. When the disease breaks out in its secondary form, it affects, in preference, the mucous membrane of the mouth, arms, etc. The altitude of the Amba may possibly predispose the mucous membranes to resent the morbid infection; in the plains it may be otherwise. At Kourata I saw but few cases of syphilis, and those were of many years' standing, so that it is quite possible that skin disease due to syphilis may exist—at all events they must be exceedingly rare.

"Syphilis here affects the integument in a peculiar way. The skin of the scrotum presents small rounded putty elevations—a kind of small empty abscess soon followed by deep and quickly spreading ulcers very difficult to heal.

"The muscular, fibrous, and osseous textures are those on which syphilis principally spreads its action. Syphilitic rheumatism is one of the commonest complaints; periostitis comes next; exostosis and caries are less usual, but still often met with.

"That mercury when administered in syphilis produces diseases of the bone, and that this form of tertiaries is in this country due only to the action of that metal (as advanced by some), is contradicted by the observation of syphilis allowed to remain for years untreated and uncared for. On the other hand, the absence of the various forms of diseases of the skin may lead us to suspect that mercury has something to do in their manifestation. Another clinical fact is evinced by the study of syphilis in this country. If the affection is of recent date, it disappears under the influence of mercury, but when it is of many years' standing, whatever may be the symptoms, and though no anterior mercurial treatment has been made, mercury not only does not prove beneficial, but often increases the evil. Iodide of potassium soon improves these cases, and a couple of months' administration of this medicine effects a certain and lasting cure.

"Amygdalitis is a very common affection amongst children and young people. Shortly after my arrival, many were brought to me with large ulcers on the tonsils and upper part of the pharynx. For some time I was under the impression that it was a form of disease peculiar to the country, until I found out that it was the result of the practice in use. The native Practitioners, in case of amygdalitis, introduce the forefinger into the throat, and lacerate the tonsils and surrounding parts. In consequence of the treatment, many die from the severe inflammation that follows, or, when they recover, large ulcers appear, the result of this malpractice. Diseases of the chest are not commonly met with. I only saw one case of phthisis. Catarrh and simple bronchitis prevail to a certain extent in elevated localities during and after the rainy season. I have not met with pneumonia or pleuritis, nor with any case of disease of the heart. Just before the rains, several children were brought to me suffering from a mild form of whooping cough, a few doses of ipecacuanha followed by small doses of belladonna, speedily relieved them. Dyspepsia is a common complaint, especially amongst those who have been living on vegetables and insufficient food. Local applications of blisters on the epigastrium, small doses of bismuth and rhubarb give relief in a few cases;

but in many instances, as the cause could not be removed, the effects remained. On the lower plateaux and in the deep valleys, diarrhœa and dysentery are common, and are exceedingly dangerous diseases. Here diarrhœa is generally brought on by cold and exposure, and is easily checked by a few doses of castor oil, followed by a few astringents. Dysentery is even less frequent; the few cases that came under my observation were soon relieved by ipecacuanha and gentian, cold water enemas, tannic acid, opium, or other astringents.

"Intestinal worms are one of the most universal diseases of the country; few, even children of 5 or 6 years of age, are free from the tape worm and all Abyssinians, male and female, take regularly, once every two months, the infusion of kousso. A few who cannot swallow this nauseous dose take other anthelmintics, some of them very powerful. The principal ones are the] 'wageris,' a long thin root; enkoko, a small reddish seed; kassala, a small black grain; mechameccho, a bulbous root; mauseni, the bark of a tree.

"The worfat (*Ascaris lumbricoides*) is frequently met with in children.

"But what is the Bonla—that disease peculiar to Abyssinian damsels? After seeing many cases, I must declare my doubts, nay, my ignorance on the subject. Is it a form of hysteria? Is it, as the natives declare, a possession of the devil? All I can say is, that it is a strange, curious, morbid affection, unlike anything I have read of or seen. A young girl is suddenly seized with the idea that she is a hyena; quite well a few minutes before, she shrieks and howls, and her voice resembles that of the animal she personifies. She runs along on all fours so quickly that, to catch her, men are sometimes obliged to mount their swiftest steeds. A poor weakly creature, she now requires many strong men to hold her. The pulse is quick, the face flushed, the look absent, the whole body trembling with excitement. She keeps swinging herself backwards and forwards, rolling her head from side to side, her hands firmly clenched; she hears and knows no one. All at once she breaks from those who hold her, rushes frantically, wildly in all directions, imitating the cry or laugh of her adopted species. Suddenly she stops, smells the ground, shrieks with delight—she has found at last what she was in search of—dog's excrement; this she greedily devours, and afterwards falls into a kind of trance. The next morning she wakes up none the worse, except a little fatigued, and resumes her usual occupations as if nothing had happened. Abyssinian Medicine is a mixture of the grossest ignorance and most glaring imposture. Some individuals pretend to possess extraordinary knowledge of the Medical art, use drugs, charms, and other incantations to which none are initiated, as the precious secret is part of the family heritage, clouded in mystery, quackery of the lowest order. Welcome they are to hide their pretended science; little good indeed would come from its knowledge."

COMMUNICATIONS have been received from—

Mr. James Moxat; Dr. Thorowgood; Dr. Thomas Andrews; Dr. Brichetaux; A Provincial Physician; Dr. Maxwell; Mr. J. D. Brown; Dr. Sutherland; Mr. C. J. Fox; Dr. J. Keeshaw; An Army Medical Officer, V.; Mr. Edward Chapman; Dr. G. R. Irvine; Dr. Fotheby; Dr. J. C. Parsons, Mr. Bridgman; Dr. Paulin; Dr. C. Smith; Dr. Brunton; Paterfamilias; Mr. Holt Dunn; New Subscriber; Applicant; Dr. Broadbent; Dr. Herapath; Dr. Roberts; Mr. J. Chatto; Dr. Wilks; Mr. J. Hutchinson; Dr. Sydney Ringer; Mr. Wagstaffe; Mr. Stone.

BOOKS RECEIVED—

Little, on Spinal Weakness—Mackay, on Street Tramways—Dental Journal, December—Galloway's First Step in Chemistry, fourth edition—Neligan's Medicines and their Modes of Administration—Pacific Medical and Surgical Journal, Vol. I., No. 7—Banks, on the Coccygeal Body.

NEWSPAPERS RECEIVED—

Medical Press and Circular—The Leeds Mercury—Manchester Courier—Oriental Mail—Durham Chronicle.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 11, 1868.

BIRTHS.

Births of Boys, 1053; Girls, 1079; Total, 2132.
Average of 10 corresponding weeks, 1858-67, 1956·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	816	758	1574
Average of the ten years 1858-67	809·2	826·6	1635·8
Average corrected to increased population..	..	..	1799
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	2	14	11	2	9	..	4	..
North ..	618,210	5	7	11	..	10	8	4	..
Central	378,058	1	4	3	1	5	2	2	..
East ..	571,158	2	15	8	3	11	8	9	1
South ..	773,175	1	8	16	4	14	7	5	..
Total ..	2,803,989	11	48	49	10	49	25	22	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·896 in.
Mean temperature	30·6
Highest point of thermometer	35·9
Lowest point of thermometer	25·0
Mean dew-point temperature	28·4
General direction of wind	N.E.
Whole amount of rain in the week	0·81

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 11, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Jan. 11.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Jan. 11.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2132	1441	1574	35·9	25·0	30·6	0·81	82
Bristol (City) .	164457	35·7	115	76	176	42·8	28·6	33·2	1·46	147
Birmingham (Boro')	350200	44·6	224	171	191	39·0	26·7	32·4	0·39	39
Liverpool (Borough)	500069	98·0	350	290	316	46·6	28·0	34·7	0·39	39
Manchester (City) .	356855	81·8	258	208	‡245	40·0	28·0	35·4	0·26	26
Salford (Borough) .	111102	22·7	85	59	68	39·0	26·9	34·5	0·35	35
Sheffield (Borough).	239562	10·2	182	122	96	37·1	28·1	35·4	0·33	33
Bradford (Borough)	108479	16·4	96	55	61	..	..	..	..	..
Leeds (Borough) .	236746	11·0	112	120	133	39·0	30·0	34·8	0·60	61
Hull (Borough) .	108269	39·4	82	50	62	39·0	27·0	34·2	0·54	55
Newcastle-on-Tyne, do.	127501	23·9	81	68	60	42·0	27·0	33·5	0·79	80
Edinburgh (City) .	177039	40·0	125	85	86	43·7	26·0	33·9	0·40	40
Glasgow (City) .	442880	88·9	385	262	287	..	..	..	..	..
Dublin (City and some suburbs) .	319935	32·8	168	†157	199	50·7	26·8	39·3	0·96	97
Total of 14 large Towns . .	6391080	34·7	4395	3163	3454	50·7	25·0	34·7	0·61	62
	(1863)				Week ending Jan. 4.	Week ending Jan 4.				
Vienna (City) .	560000	..	.	..	313	..	..	21 §	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·886 in. The barometrical reading decreased from 30·10 in. on Friday, January 10, to 29·69 in. on Saturday, January 11.

The general direction of the wind was N.E.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 30·1°.

APPOINTMENTS FOR THE WEEK.

January 18. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

Metropolitan Association of Medical Officers of Health, 4 p.m. Mr. Haviland, "On Geology as a Part of Sanitary Science."

20. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Medical Society of London, 8½ p.m. John Gay, F.R.C.S., "On Varicosity in relation to Ulcer."

21. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Ethnological Society of London, 8 p.m. Prof. Busk, "Exhibition of, and Observations on, Casts of Human Remains and Works of Art from Tumuli and Caves in Portugal." John Crawfurd, Esq., "An Examination of the Darwinian Theory."

Pathological Society, 8 p.m. Meeting.

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Hunterian Society (Special Council, 7 p.m.), 8 p.m. Dr Peacock will read a Paper.

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

24. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Prof. Tyndall, "On Faraday as a Discoverer." (Part I.)

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture VIII.—Part I.

DEFINITION OF SPONTANEOUS VERSION AND SPONTANEOUS EVOLUTION — VARIETIES OF SPONTANEOUS VERSION — MECHANISM OF SPONTANEOUS VERSION BY THE BREECH.

It is especially necessary, before we proceed, to define with precision the significance that attaches to the terms employed, the more especially that I find it desirable to use some terms in a different sense from that current in this country. Dr. Denman used the term "spontaneous evolution" to express the natural action by which the pelvis or head was substituted for the originally presenting shoulder. The term "spontaneous expulsion" has been applied to the process of unaided delivery described by Douglas, in which the child is driven through the pelvis doubled up. Neither of these terms is free from objection. The first especially is inaccurate, and has given rise to much misapprehension. The process described by Denman is a true *version* or *turning*. All German, French, Italian, and Dutch authors apply to this process the term "spontaneous version"—"*versio spontanea*." It might be called *natural version*, to distinguish it from artificial version effected by the hand of the obstetrician. All Continental authors likewise call Douglas's process by the name "spontaneous evolution," the process being one of unfolding, as it were, of the doubled-up fœtus. It is of great consequence to bring our nomenclature into harmony with that of our brethren abroad, and it is of still greater consequence to bring our nomenclature into harmony with nature. It is clear, therefore, that the change in terms should be made by us. I shall use the terms "version" and "evolution" in the correct sense.

There are *two varieties of spontaneous version*—one in which the head is substituted for the shoulder, the other in which the pelvis is substituted for the shoulder. These varieties of spontaneous version correspond with two similar varieties of artificial turning.

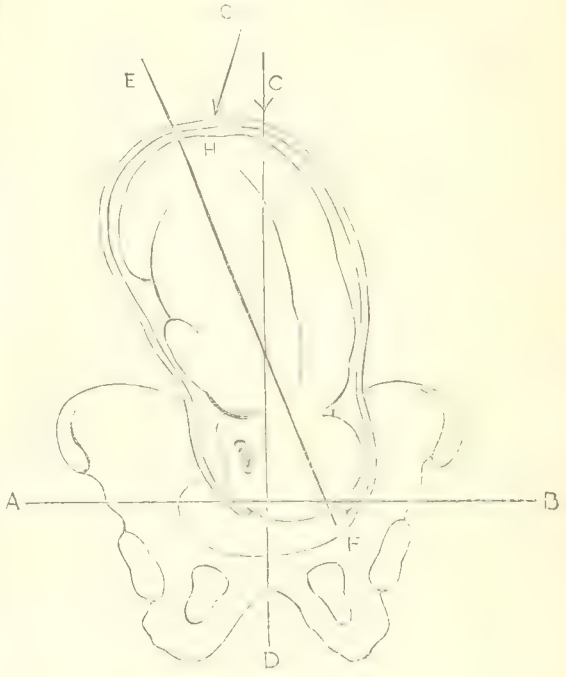
There are likewise *two varieties* of *spontaneous as well as of artificial evolution*. The head or the trunk may be evolved or extracted first.

These processes I will describe successively, beginning with the spontaneous or natural operations, since these are conducted in obedience to mechanical laws which must be respected in the execution of the artificial operations.

In Fig. 36 I have endeavoured to represent the very earliest stage or condition of things in shoulder-presentation. The long axis of the child, and of the uterus, stands obliquely to the plane of the pelvic brim. It is not, indeed, very distant from the perpendicular. It is a very serious error to regard these presentations as entirely cross or transverse. It is only in the advanced stages of labour with shoulder-presentation, when the liquor amnii has been long drained off, when the uterus has been contracting forcibly, driving the shoulder deeply into the pelvis, that the child can truly be said to lie across the pelvis. Diagrams copied from text-book into text-book seem to have fixed this false idea firmly in the obstetric mind.(a) I venture to say that, except in cases of dead, monstrous, or small children, or with loss of form of the uterus through excess of liquor amnii, a true cross-birth, such as is commonly pictured and generally accepted, does not exist at the commencement of labour. It would be better, because certainly true as a fact, and because it does not commit us to any theory, to call these presentations *shoulder-presentations*, and to discard the terms "cross-birth" and "transverse presentation" altogether. In shoulder-presentation, an oblique position of the child *becomes* transverse in the course of labour; but the presentation is not transverse *ab initio*.

The neglect of this fact has been a main cause of the errors that prevail in the doctrine and practice of turning.

Fig. 36.



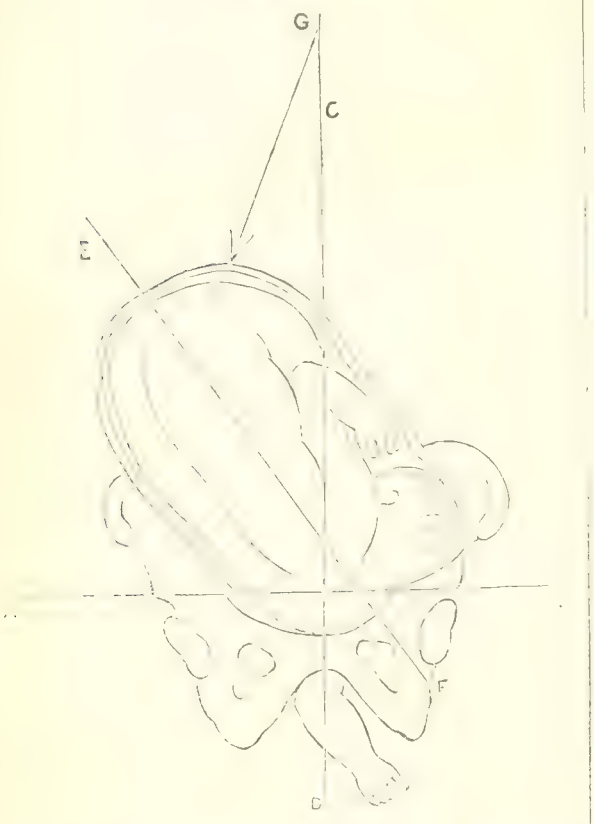
In the diagram (Fig. 36), the child and the uterus, E F, stand obliquely, at an angle of about 15° or 20° to a perpendicular C D drawn upon the plane of the pelvic brim. The head is nearly in a straight line with the spine. It stands half over the brim, and half projecting beyond into the left iliac fossa. That is the *first act*. This act may pass into natural head-labour. Wigand, Jörg, and D'Outrepont say this position is common, and that the effect of the first uterine contractions is usually to bring the long axis of the uterus and of the child into due relation with the pelvic brim. This phenomenon is, in fact, a form of self-turning or natural rectification. If this attempt at rectification fails, then we have the transition into shoulder-presentation. The shoulder or arm cannot come down into the pelvis until the *second act*, a movement of flexion of the head upon the trunk, takes place.

This happens in the following manner:—The muscles of the fundus uteri contracting, aided or not by the downward pressure of the abdominal muscles and diaphragm, bring a force acting primarily upon the breech which lies at the fundus. This force will strike with greatest effect upon the left or uppermost side of the breech, at an angle with the long axis of uterus and child. The line G H represents the direction of this force. The result is that the breech descends. And now mark what follows:—If the cavity of the uterus were as broad as long—that is, a flattened sphere or short cylinder like a tambourine—the child's long axis formed by spine and head might preserve its rectilinear character; and as the breech descended, the head would simply rise on the opposite side until it comes round to the spot abandoned by the breech, performing, in fact, a complete version. But the uterus, we know, is narrower from side to side than from top to bottom. The head will find great difficulty in rising; it therefore bends upon the neck. The shoulder, pertaining to the trunk, is kept at the lowest point in a line with it. The head is thrown more into the iliac fossa, where it rests for a while. Fig. 37 represents this second position of the fœtus. A B is the plane of the brim; C D the perpendicular to the plane, representing the axis of entry to the pelvis; E F is the axis of the child, now a bent line; and G H shows the direction of the down-

(a) It has been my habit, when making notes of cases coming under my observation, to record the position of the child by means of sketches. It is from these graphic memoranda that most of the illustrations in these lectures of the phenomena of shoulder-presentation and turning will be taken.

ward force, which now strikes the uterus and breech at a greater angle with the perpendicular.

Fig. 37.

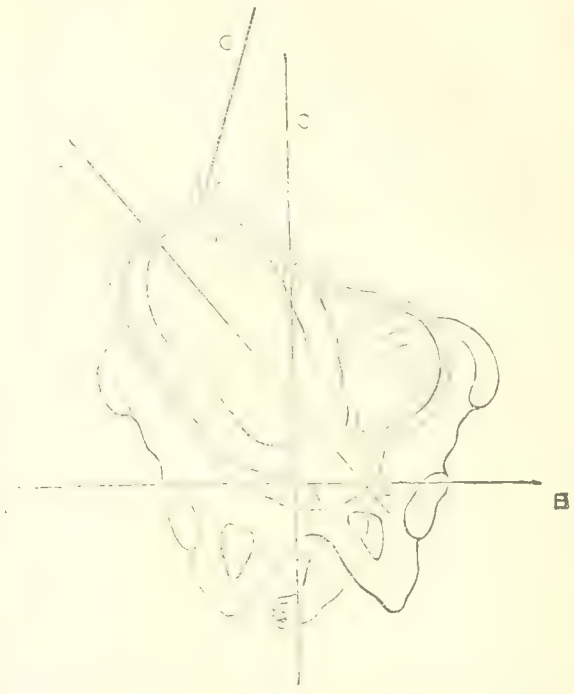


Now the arm will commonly be driven down, and the hand may appear externally. The observation of the hand will tell the position of the child. The back of the hand looks forwards, the palm backwards, the thumb to the left. All this tells plainly that the head is in the left iliac fossa, and that the child's back is turned forwards to the mother's abdomen. The right scapula will lie close behind the symphysis pubis; the acromion and right side of the neck will rest upon the left edge of the pelvic brim; and the right axilla and right side of the chest will rest upon the right edge of the pelvic brim; whilst the belly and legs of the child, turned towards the mother's spine, will occupy the posterior part of the uterus.

At this stage, even after the liquor amnii has been drained off, spontaneous or natural version may still be effected. The process described as the second act still continuing, the breech is driven lower down; the trunk bends upon its side; the curve thus assumed by the long axis carries on the propelling force in a direction across the pelvic brim; the head tends to rise still higher into the left iliac fossa; the presenting shoulder and prolapsed arm are drawn upwards a little out of the pelvis. This *third act*, one of increased lateral flexion of the child's body, and of movement across the pelvic brim, is represented in Fig. 38.

If spontaneous version is to be completed, the *fourth act* succeeds. The breech being the most movable part, and the trunk being capable of bending upon itself, partly on its side, partly on its abdomen, is drawn lower and lower, the right shoulder being forced well over to the left side of the pelvic brim, and the head being fairly lodged in the upper part of the iliac fossa, the brim is comparatively free for the reception of the trunk. This enters in the following manner:—The right hip comes first into the brim; it is forced lower, and is followed by the breech. As soon as the breech enters the pelvis—that is, as soon as it gets below the sacral promontory—a *movement of rotation* takes place analogous to the rotation which the head takes in head-labour. There is most room in the sacral hollow, and there the breech will turn. This turn of the trunk brings the body from the transverse position it occupied above the brim to one approaching the antero-posterior; and commonly the head yields somewhat to the altered direction of the spine by coming more forward.(b)

Fig. 38.



When this rotation-movement is effected, or rather simultaneously with it, a *movement of descent or progress* in an arc of a circle round the pubic centre goes on. The flexion of the spine is now reversed. Above the brim the trunk was concave on its left side, as seen in Figs. 37 and 38. When the breech has dipped into the pelvis, the trunk becomes concave on its right side. The breech descends first. The right ischium presents at the vulva. Then the whole breech sweeps the sacral concavity and perinæum. The trunk follows. The right arm, which has not always completely risen out of the way, comes next; then the left arm; and lastly the head, taking its rotation-movement, and its movement in a circle.

ORIGINAL COMMUNICATIONS.

ON THE EXTERNAL USE OF DIGITALIS IN SUPPRESSION OF URINE.

By J. D. BROWN, F.R.C.S. Eng. (Exam.).

Case 1.—Mr. H., a healthy young farmer, aged 23, was suddenly seized with severe pain in the bowels and back. I saw him at the end of seven days. Bold treatment had been enforced by Mr. John Thomas, of Narberth, such as bleeding, sweating, blistering, warm baths, but in vain. A catheter was passed on my arrival, and about a teaspoonful of urine was removed highly albuminous. His condition was nearly hopeless when we met the next day. Vomiting and nausea prevailed, with heavy dull pains, and he was evidently sinking. It was now the ninth day, when we agreed to try the effects of digitalis. It was useless to administer it by mouth, and there was no time to lose. It was the month of May, and digitalis was plentiful. A poultice of leaves, bruised and warmed in boiling water, was applied at 12 a.m. We left, saying that if no urine came away by six in the evening a fresh poultice was to be applied. We had no sort of hope of the patient's recovery, and communicated our opinion to the friends on leaving. By 6 p.m. no urine. A fresh poultice was applied to the abdomen. About 10 that night urine passed. At 4 a.m. I was sent for, and Mr. Thomas, who lived nearest, got to the house by 6 or 7. The messenger,

(b) The [illegible] the mechanism of spontaneous version will be illustrated in future lectures.

to my utter surprise, said that they could not stop him making water. He had then made eight ordinary-sized chamber vessels full, and was still making it when he left. We met at 10 a.m., but he never rallied; the drain was too much. Digitalis had been badly handled by us. We left no guide, no rule, and too much was absorbed. It did well, but went beyond its work. He lived till night.

Case 2.—A. R., servant, aged 45, subject of renal calculus and gout, was suddenly seized with suppression, but had no great amount of pain beyond what he usually suffered in passing small stones. I saw him on the fourth day, in consultation. All the usual remedies had been tried in vain. It was winter, and digitalis was given, but not in bold and sufficient doses at first. At the end of the sixth day it was boldly given in large doses, and a poultice applied on the seventh day; urine passed freely, and all went well. He still lives in his usual health.

Case 3.—Mrs. L., age 50, subject of renal calculus. Suppression came on with vomiting and the usual symptoms. At the end of four days, every other plan having been tried, I recommended the poultice. It was winter, but leaves were obtained and applied as usual. I returned in six hours, when two chamber vessels full of urine had been passed. All the symptoms gave way, and for two days she continued to do well. Again suppression came on; she was neglected by her attendants, and the poultice was not again applied. She sank at the end of the twelfth day, no water being passed except for the three days when digitalis was in the field.

Case 4.—Mr. G., a gentleman about 40, subject of renal calculus, having passed one years ago, in good health up to Friday morning, when he was suddenly seized whilst dressing with intense agony in the right renal region. His Medical attendant, Dr. Rowlands, of Carmarthen, saw him immediately, subdued the pains, but, to his surprise and vexation, no urine passed. A catheter was passed; there was no urine in the bladder. The usual treatment (baths, leeches, and opium) was actively employed without avail. Dr. Lewis, Carmarthen, was then called, who persisted, in conjunction with Dr. Rowlands, with the remedies. On Monday, I saw him with Dr. Lewis. I told him of my success with digitalis; he was surprised, but did not like to undertake its management unless in concert with Dr. Rowlands, who was then out of town. We agreed to give it in one-grain doses every four hours until Tuesday morning, when we again met. We then agreed to apply the poultice. It was May, and we procured plenty of fresh leaves. Dr. Rowlands and myself made and applied it. He undertook to watch the pulse, which we took for our guide. It was 109 at 11.30; catheter passed no urine; few drops of blood; poultice applied over abdomen; in ninety minutes, pulse 75; poultice taken off. A call for the chamber-vessel; a good stream of water; in twenty-two hours, seventy-five ounces were passed. Specific gravity 1·15. Acid, slightly albuminous, a little blood, and casts. Improvement kept pace. Friday: Symptoms of stone again, which gave way to the usual treatment. Saturday: Plenty of urine; recovery complete.

Case 5.—Mr. R., aged 54, subject of renal calculi, was suddenly seized with symptoms of renal calculi passing off in December, 1867. Mr. Hicks, of St. David's, and Mr. Howell saw him, and used every available means that skill and practice could command for two days, but in vain. Mr. G., of Carmarthen, the subject of the preceding case, being in the neighbourhood, hastened to the house, told the Doctors of his cure, and begged them to try it immediately and to send for me. Fresh leaves were collected, and a poultice applied, but having no guide nor experience in its use, it was taken off too soon. I arrived at 4 a.m. Being sixteen miles distant, much time was lost. This was the third day. A catheter was passed, to satisfy ourselves as to state of the bladder. No urine. I had brought some dried leaves and tincture with me. A poultice was made of ʒss of tincture, with fresh and dried leaves; poultice applied at 5 a.m.; pulse about 80. At 8.30 am.: Pulse reduced about 15, and about ten ounces of pale, clear, slightly albuminous urine came off. A fresh poultice applied at 10, and I left, with directions to take it off when the pulse came down to 60. Plenty of urine continued to be secreted, and from that time he has continued to improve. Urine is now slightly albuminous and alkaline, in spite of our remedies. This gentleman was much out of health, and had been for two years the subject of renal calculi, nausea, and dyspepsia, but he is much better, and improving under phosphoric acid and iron.

Case 6.—Mrs. ——, aged about 40, was suddenly seized with suppression of urine. In spite of every remedy, to the fourth day the suppression continued. Severe symptoms were now developed, and a tendency to stupor was amongst them, pulse indicating mischief. It was now decided that they should try the digitalis plan. One ounce of the tincture was mixed with a warm linseed poultice, and kept on overnight. The next morning a large quantity of urine passed. The poultice was kept on the abdomen all next day; urine was plentifully secreted; and from that time she improved and got well.

There may be a difficulty in obtaining leaves collected before seeding time, which appears to me to be the period of most vigour, judging from the fact that Nature concentrates her powers for the multiplication of species, and which at seeding time would pass into the young, leaving all other parts more or less exhausted. I believe from experience the winter leaf is very deficient in power. The tincture, mixed with linseed meal, succeeded in Messrs. Rowe and Phillips's case (Case 6); the fresh powder or dried leaves would be equally efficient. The rules of management must depend on the pulse. I have seen no good results till the pulse fell in number; it matters not from what figure: fall it must before any change occurs. In Mr. G.'s case it fell from 109 to 70 in ninety minutes; in Mr. R.'s, from 80 to 65 in three hours and a half. I would strongly advise 60 as a standard from a high number; 40 or 50 from a lower figure—say from 80. Judging from the effects on the circulation, we cannot lose sight of the fact that the arrest of secretion depends on capillary congestion, which in turn might, by pressure, paralyse the nerves. The fact, however, remains that we compel the kidney to resume its functions by diminishing the force of the circulation, lessening the quantity of blood by allowing a much longer interval between each new arrival. Strange, too, it is that in four cases the attack commenced suddenly like a fit of stone, and, in reality, stone came away in each case.

These cases are reported with the object of calling attention to the effects of digitalis in that dangerous disease, and of inducing the Medical world to give it a trial. It is not supposed that it will succeed in all cases of that mysterious disease; but it is clear that it has a powerful influence over the renal secretions, and if carefully watched, taking the pulse as a guide, no mischief need be feared. I own there was a want of caution in the management of my first cases—indeed, it was only used as a hopeless remedy—but as the truth broke upon me, it was clearly seen there was a power in use I had not clearly foreseen, and more skill and caution was enforced in its management.

Haverfordwest.

CASE OF PARTIAL APHASIA, WITH LEFT HEMIPLEGIA.

By WILLIAM BRUCE, M.D.

Mrs. M., aged (now March, 1867) 49, enjoyed good health up to 1861. In July of that year, being in the seventh month of her pregnancy, and suffering merely from the usual dyspepsia consequent on that condition, she was in the act of pouring out tea with her left hand, about 7 o'clock on a Sunday morning, when she suddenly lost the power of that hand, and would have dropped the teapot had she not caught it with the other hand, with which she had previously been stirring the "porridge." She was able to say distinctly, "Do this for me, I cannot;" but "wavered" afterwards in her talk, and spoke "strange." Next day she was able to visit a neighbour, but on her way home noticed that she had lost the power of speech. She tried to say, "There is something wrong with me," meaning to repeat it to her sister-in-law when she went home, but could not. When I saw her between 12 and 1 o'clock, very soon after, she could merely say "ay" or "no," but nothing more. Her face was not affected; but she had clearly lost power in her *left* arm and leg. She was not left-handed. I believe she could put out her tongue; and I remember being struck with the want of power to form the ideas of words, in strong contrast to another case I had seen the same morning, where the muscles (or nerves) of the tongue were at fault, the speech "thick," and articulation difficult. She herself states that she could put out her tongue as usual. She was bled from the arm, and was able to speak better before I left the house. She got worse again next day, and was again bled. She was safely delivered, at the full time, of twins. There

was very much as usual in my last visit. She had always had much to do. She has greatly improved since the date of the attack, but complains still of weakness of the left side, and there is some hesitation in her speech. She is worse in that way if excited, *e.g.*, when from home. She complains of not being able to recollect the word she "forgetting in a minute" what she had intended to say, and, generally, of forgetting names. I have noticed that she hardly ever entirely finishes her sentences, but she stops awkwardly, and says "never mind," or "augh," or sighs instead of going on to talk; or even changes the topic of conversation, as if to hide her inability to continue as she began. She is of a sallow appearance, and her lips are rather bluish. She used to be liable to bilious headaches. She has never had rheumatic fever. With regard to her heart there is no bruit, but the first sound is very indistinct in comparison with the second, and its action is deliberate (78), if not laboured. There is no palpitation, no apparent enlargement, or increased impulse.

I subjoin the following list of mistakes. "Overside" she called "*Stove*," "St. Helen," "*Stove*," "Margaret," "*Mount*," "Mary," "*Jam*," "Thunner," "*Thunder*," using the English instead of the Scotch word, which latter form she invariably used before me; "Orgeny" (Scotch for Andrew) she called "*Andie*," finding in most cases a difficult. In proof of the general failure of memory, I may mention that she one day put a pail and water over the fire instead of a kettle, and, on another occasion, began preparations for baking on a Sunday, which latter would be looked upon here as about as much of a sin as stealing.

Crimond, Peterhead, Aberdeen.

CLINICAL EXPERIENCES WITH DR. RICHARDSON'S "STYPTIC COLLOID."

By JOHN LOWE, M.D., etc.,
Surgeon to the West Norfolk and Lynn Hospital.

In these days of Conservative Surgery, we hail, with much satisfaction, any useful adjunct to the healing process. More especially is this the case if thereby we diminish the bodily sufferings of the patient while adding materially to his comfort, and at the same time saving time and trouble to ourselves. Any process which would fulfil such indications as these, might surely claim the merit of being a great discovery, no matter how simple it might be in its details and design. But if, added to these, it should prove at the same time to diminish the risks of an operation, and be the means of preserving valuable lives, its claims would rest on a still higher and firmer basis.

Dr Richardson's new preparation bids fair to establish for itself a claim to do all these things. Without being oversanguine, it may, I think, be regarded as the most useful improvement in the modern treatment of Surgical cases.

In ordinary operations performed on healthy tissues, Nature is, as Hippocrates said, "sufficient of herself to the cure of every evil." She pours out a protective fluid for the closure of the wound, and prevents those unfavourable results which follow the production and absorption of noxious products. But in less healthy structures, or where closure of the wound is impracticable, these results are certain to follow in a greater or less degree, and it is in such cases that we need assistance in controlling the tendency to decomposition in the fluids, and thus preventing the risks from pyæmia, while at the same time fostering and protecting the delicate cell growth on which we depend for the completion of healing.

Owing to the antiseptic principles (gallic acid and benzoin) contained in the styptic colloid, we find this indication completely fulfilled. The healthy character which the pus assumes after its use in necrosis operations, contrasts wonderfully with the usual sanious and offensive secretions when other dressings are used.

Case 3, which is narrated below, was one of the most striking I have ever seen, both as regards the speedy production of healthy pus and the rapid cure effected. Many conservative operations depend mainly for their success on the degree of immobility which it is possible to maintain. Frequency of dressing is in these cases the *bête noire* which we most dread. With the most delicate handling, and with the Surgeon's constant personal care, how difficult it is to avoid doing mischief! Without them how often failure results! But if these be no longer necessary, except in a very minor degree, the gain is great indeed. The case of amputation of the foot shows well how little of this kind of supervision is required. Those who have had to undergo severe operations would soon tell us the worth of a process which would diminish the number of dressings to two or three.

But there are other cases in which we find equal advantage from the use of the "colloid." Burns, which are both troublesome, offensive, and painful in the dressing, are deprived of half their terrors. When profuse suppuration sets in, the "colloid," if painted freely over the surface, at once removes the fœtor, protects the granulations, and the wound speedily heals. No doubt the first dressing is painful, but not so the others. With moderately sized wounds, the first dressing is also the last. Nothing further is required but daily painting with the "colloid." In cancer, the comfort obtained is very great. I have given a case in which the colloid was used with most perfect success, and, strangely enough, with a marvellous diminution in the amount of pain.

Taking into consideration all the advantages which we obtain from the use of this preparation, and without departing from a sober estimate of the value of the facts observed, I cannot but conclude that we of the Profession, and above all the public, are under great obligations to Dr. Richardson for his simple but most elegant and useful discovery.

Case 1.—Amputation of the Foot—Pirogoff's Operation—Care—Application of Styptic Colloid.

Abigail G—, aged 28, residing at Swaffham, was admitted into the West Norfolk and Lynn Hospital with disease of the ankle.

History.—Patient states she has had disease of the left ankle-joint since childhood. There had been no discharge from it until June, 1865, when it became swollen and very painful, ultimately discharging from several openings. In this condition she remained until admission into the Hospital, having during the greater part of the time been engaged in agricultural and other work. She had never had the diseased joint treated by rest or any applications, except poultices occasionally. On admission it was found to be greatly swollen and very painful. Several sinuses communicated with the joint, which was firmly anchylosed, the foot being fully extended and the weight of the body borne upon the toes. After being treated by rest, Scott's dressing, good diet, etc., for a lengthened period without any benefit, and finding her health beginning to give way, a consultation was held, and it was decided that an operation was expedient. Accordingly, on May 13, the patient being put under the influence of chloroform, I proceeded to perform Pirogoff's operation, with the modification which I had previously adopted—viz., the preservation of the periosteum of the tuberosity of the calcaneum, the bony structure being enucleated by means of the gouge. The ends of the tibia and fibula were found to be sound, but a large portion of the anterior flap was gelatinous and very unhealthy. Owing to the contraction of the Achilles tendon, it was found needful to divide it. No vessel required ligaturing; the flaps were brought together by silver sutures. About an hour afterwards the wound was closed up by a free application of styptic colloid and lint, in the manner described by Dr. Richardson. Very little blood had been lost during the operation, and, with the exception of the anterior flap, concerning which grave doubts existed, the case promised a successful termination.

2nd day.—Doing well; not much pain.

4th day.—As before. No discharge.

5th day.—Slight discharge; no smell whatever. Colloid applied freely over the wound.

8th day.—The colloid has been applied daily. There has been pretty free discharge, but no odour. On dressing the stump for the first time, it was found that a large piece of the anterior flap had, as was feared, sloughed. The slough was not, however, detached. The sutures were removed; a couple of pieces of strapping applied to support the heel; colloid poured freely into the wound; lint and a light bandage applied.

16th day.—There has been rather free discharge, but, thanks to the colloid, which has been applied daily over the bandage, no unpleasant odour. The stump was again dressed to-day, when the slough came away, leaving a healthy rapidly granulating surface. The end of the tibia was quite exposed, but showed no signs either of repair or decay. The heel was brought forward by strapping, and colloid applied as before.

On the third dressing the wound had nearly filled up by granulation; the tibia was no longer exposed; a thin shell of bone had separated from the outer margin of the fibula. There is now but little discharge.

June 19.—Up to this time the limb has been kept perfectly quiet. The dressing has been applied daily without moving the stump. The wound is as nearly as possible healed, and there is only a trace of discharge. General health much improved.

July 10.—The stump has daily become firmer. Only one small spot about the size of a sixpence remains uncicatrised, owing to the traction of the reunited tendo Achillis, which had drawn the heel backwards.

20th.—By the application of a splint to the back of the leg, this has been counteracted, and the sore is now all but healed. The stump is a well-formed one, with the heel nicely in the centre, and bids fair to render the limb a very serviceable one.

It is impossible to overestimate the value of such a dressing as the "styptic colloid" in a case of this kind. The perfect immunity from fœtor, the quiet state of the limb which is allowed, and the diminished risk of purulent absorption, together with the healthy granulation which is permitted to progress unretarded by the presence of a septic poison, are facts which create a new era in Surgery.

The perfect state of rest which was obtained in this case seems to have been the main element in its success. Three dressings only were required in the first three weeks—that is, the limb was only moved so many times. Judging from what I have seen of the action of the colloid, I am disposed to think that erysipelas will prove of much less frequent occurrence under its use, if, indeed, it be not altogether abolished in Surgical practice.

Case 2.—Cancer of Mamma—Beneficial Action of "Colloid."

Mrs. F., aged 48, residing at Tilney, came to consult me May 1, 1867, regarding her breast. Four years ago she noticed a small hard tumour near the right nipple. She had shown this some years ago to my colleague, Mr. Kendall, who advised its removal, but to this she refused her consent. After a time, as she suffered from severe lancinating pains, she put herself under the care of several Practitioners, regular and irregular. The tumour continued to enlarge, and in July last ulceration commenced. The sore was five inches in length, extending from the nipple across the anterior border of the axilla. The remains of the breast closely adherent to the muscle. The axilla was filled with a mass of enlarged glands. The wound was sloughy, and intensely offensive. Continued lancinating pains deprived the patient of her sleep and appetite. She had lost flesh rapidly in consequence, and her face bore the appearance of cancerous cachexy in a high degree.

She was at this time quite willing to undergo the operation, and begged me to remove the breast. This, I told her, was impossible, as the disease had advanced too far. I could hold out to her no hope save of mitigating her pain and making her last days more easy. To remove the horrible effluvium which made the poor creature a nuisance to herself and family, I painted the wound over with colloid, and gave her a bottle of it to take home with her. I also gave her a morphia pill to be taken at night. She came again the following week, when I was surprised to find that the wound had become quite clean, and was healthily granulating, every trace of smell having of course disappeared. But more than this, the pain had also gone; she had enjoyed comfortable nights, her appetite had improved, and, with hope in her countenance, she looked years younger than she had done the week before. She felt certain she would get well, but on this head I could give her but little encouragement, so extensive was the amount of disease. However, she continued to improve; the wound, which was constantly painted with the styptic, gradually filled up. No pain was experienced, except when she ran short of the dressing. The enlarged mass of axillary glands diminished *pari passu* with the wound, so that now they can scarcely be felt. The wound itself is not larger than a four-penny-piece (July 15), and would, I think, have been quite healed ere now but for the difficulty I have in inducing her to rest the arm, which, owing to her having a large family of young children, she has not been able to do.

Case 3.—Caries of Tibia.

W. A., aged 14, a delicate, strumous boy, residing at Snettisham, was admitted into the West Norfolk and Lynn Hospital with disease of the ankle-joint March 13, 1867. Several sinuses communicated with the joint, but the probe did not come in contact with any diseased bone. The limb was put up in a gutta-percha splint. Patient placed on a generous diet.

April 22.—The sinuses continue to discharge, and now denuded bone is felt at the extremity of the tibia. Patient having been put under chloroform, an incision was made over this point. The articular end and about three inches of the shaft of the tibia were found to be soft and carious. By means of the gouge and pliers, the whole thickness of the bone was removed over this extent, care being taken to avoid the joint. The wound was filled with colloid, and closed by a piece of lint soaked in the same, the limb being placed again on a splint.

On the fourth day, when the limb was dressed, the wound was granulating very freely, and was filled with thick creamy pus instead of the usual sanious discharge one meets with in similar cases. The same dressing was continued, the wound rapidly closed, and on

May 13 he was made out-patient, only a small sinus, caused by a fragment of undetached bone, remaining. The splint was still retained, and patient was ordered to come up in a few weeks to have the fragment of bone removed. General health greatly improved.

The styptic has been largely used in our Hospital in a variety of cases, and invariably with the best results. I have as yet never seen it fail to answer the ends for which it was designed. In old chronic ulcers, foul-smelling and filthy to a degree, the odour is at once destroyed, and healthy granulation established. Most markedly was this the result in a case of my colleague's. The patient, a young sailor, who had been long at sea, was admitted with a number of very large syphilitic ulcers on both legs, the stench from which made the ward unbearable. They were freely painted over with the "colloid," and in a very short space of time the odour was all but gone. They healed most rapidly.

In cancer of the penis, too, it is most serviceable in removing the odour and in mitigating pain. Nothing could be more striking than its action in this respect in the case of cancer of the breast which I have reported above.

In conclusion I may state that erysipelas is, with us, to all appearance, a thing of the past. Some time ago, owing to imperfect sanitary arrangements, almost every Surgical case in the Hospital was attacked with erysipelas, and several died of pyæmia. Some improvement was effected in the hygienic condition of the Hospital, but it is still imperfect. Latterly, however, since using the tincture of iodine to the surface of the wound and styptic colloid externally, there has not been a single case of either erysipelas or pyæmia, and the cases generally remain a very much shorter time on the books. There is no doubt that the colloid is an expensive application, and that it causes a serious expense to the Hospital; but I consider that the gain from the rapid cure of the cases under treatment largely overbalances the original outlay; and not only is the expense diminished by the shorter duration of the cases, but, owing to the absence of septicæmia, there is a greatly reduced need of stimulants and extras.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

ABSTRACT OF A CLINICAL LECTURE BY DR. PRIESTLEY ON THE CLOSING OF THE NIGHTINGALE WARD IN KING'S COLLEGE HOSPITAL.

(By our own Reporter.)

Dr. Priestley observed that this ward had been founded in connexion with King's College Hospital, by means of a fund which had been subscribed with a view of offering some suitable memorial to Miss Nightingale, in acknowledgment of her exertions in the cause of suffering humanity during the Crimean war. It was thought that this memorial could not take a more appropriate form than that of a lying-in ward, in which nurses might be taught to act as midwives amongst the poor, and students of Medicine might be enabled to learn the art of obstetrics in the most advantageous manner. The ward had been established and inaugurated under the auspices of Dr. Priestley's predecessor, Dr. Arthur Farre, and every precaution had been taken to isolate it as much as possible from the other Medical and Surgical wards of the Hospital, and thus to keep it free from the influences which might emanate from

certain cases of disease which find their way into the wards of a general Hospital. The Nightingale Ward was, therefore, placed on the upper floor of the Hospital, with a ward devoted to the diseases of women next it, but with no other ward on the same floor.

A convalescent ward was provided apart from the lying-in ward, and each patient had the very liberal allowance of 3200 cubic feet of breathing space. Indeed, so perfect were the arrangements of this ward, that they were repeatedly made the subject of commendation by many foreign obstetric Physicians who from time to time visited it.

They had a skilful resident midwife and a qualified resident obstetric assistant, and the patients received every attention and comfort that they could desire. He had seen no Hospital which had so perfect a maternity department.

Notwithstanding all these precautions — notwithstanding the perfection of the arrangements which had been made for the care of the lying-in women, the results had been so adverse to the patients admitted, that the ward was now closed. The closing of this ward was no sudden idea, but had gradually and progressively grown out of the painful recollections which were associated with the cases that had occurred in it.

In cases where the forceps had to be used, or in cases where premature labour had to be induced, the results were more frequently untoward than favourable. These cases were generally followed by some form of purperal fever or of blood-poisoning. Besides this there was a much larger proportion of deaths after natural delivery than is usual, and it was further noticed that the patient's chance of recovery was diminished if, from any reason, she came into the Hospital a week or two before the time of labour, and it had constantly been insisted upon that in the case of a woman coming up from the country, she should not be brought to the Hospital until she was actually in labour.

Attempts were made to discover the cause of this mortality, and, if possible, to prevent it. In the first place, it was impressed upon the obstetric assistant and the obstetric clerks that they should go as little as possible into the general wards of the Hospital, and especially into such wards as were known to contain cases of fever or erysipelas, and that they should abstain altogether from going into the post-mortem theatre. Pupils who were dissecting were not to attend the lying-in ward. Disinfecting agents of every kind were freely used. These precautions were essential because it is now well known that any particles of matter which may adhere to the fingers after the examination of foul sores, or cases of erysipelas or any specific inflammation, or cases of scarlatina, are almost certain to produce puerperal fever, or some other form of blood-poisoning, if introduced into a lying-in ward.

After a conference with Professor Miller, pans of charcoal were placed in the wards, and vessels filled with carbolic acid and water. In cases where the vaginal discharges were in the least offensive, frequent injections of carbolic acid and water or of Condy's fluid were employed. But all these means failed to check the mortality.

Another attempt was made to reduce the mortality by transferring all the patients from the lying-in to the convalescent ward immediately after delivery, and, as there were two separate delivery rooms, these were used alternately for three weeks at a time, one being made use of as a lying-in ward, while the other was being thoroughly ventilated and disinfected. Whenever it happened that two or three bad cases occurred successively, the whole establishment was closed for two or three weeks, including the convalescent ward, and everthing was changed or disinfected. The committee of the Hospital had at all times shown its readiness to co-operate and carry out any suggestions he had made. In spite of all these precautions, the rate of mortality increased rather than diminished. The mortality for the last six years—indeed, for the [illegible] the Nightingale Ward had been opened—has been [illegible]; this was a very high death-rate. But it must not be supposed that this high rate of mortality was peculiar to this Hospital. Dr. Lefort states that, taking the statistics of lying-in Hospitals generally, the death-[illegible] in [illegible] with the rate of mortality amongst the out-patients attended by students at their own homes, and we find it to be only 1 in 212! It follows, as a natural deduction from these figures, that in all probability the lives of many of these patients would have been spared had they been delivered in their own homes.

Not only was the mortality great, but it became progressive as years went on, till last year (1867) it reached 1 in 13. It was this sad mortality that necessitated the closing of the ward. It was necessary, however, in looking at these figures, to remember that the number of women admitted for their confinements in one year never reached 200, and that, generally, the total number of deliveries was below 150. In so small a number, three or four deaths appeared a large proportionate mortality, and the occurrence of a single bad year told more strikingly on the average than if the figures were larger.

In 1862, the deaths from puerperal fever or other forms of blood-poisoning were 1 in 32·3, and of the three fatal cases two were cases of natural labour, and the third was a case of twins in a phthisical mother. In 1863 the deaths were 1 in 51·5; the two fatal cases were both natural labours. In 1864 the rate of mortality was 1 in 47. There were two fatal cases: in one the child was born in a cab, and there was considerable post-partum hæmorrhage; the other case was one of pyæmia following the induction of premature labour at the eighth month. In 1865 there were five deaths, the rate being 1 in 32·6: of these, three were cases of natural labour; in two, the short forceps had to be used, and in one there was slight laceration of the perineum. In 1866 there were also five deaths, or 1 in 30: two were natural labours, one was a case of placenta prævia, one a case of retained placenta, and in a third the long forceps was used. Last year there were nine deaths, or 1 in 13·8: of these, four were natural labours; one was admitted with erysipelas into one of the general wards, and unfortunately sent on to the midwifery ward in labour; in another, rigors occurred during labour; another was a case of turning; and in the last two cases one was a case of twins in which the second child had to be delivered by turning, and the other was a forceps case.

Now as to the true cause of all this mortality. It was no doubt occasioned by the conveyance of poison in the atmosphere of the Hospital from cases of Surgical fever, erysipelas, and allied diseases. Morbid exhalations diffused into the atmosphere passed from the lower wards to the upper lying-in wards. This was strikingly exemplified during an outbreak of erysipelas in the Surgical wards, coincidently with which the two women who were occupying the beds next the door in the lying-in ward, close to the shaft of air passing up from the lower wards, were attacked with symptoms of puerperal fever. At another time, a child which had been delivered by forceps, and had been slightly scratched on the brow by one of the blades, was attacked by erysipelas, which rapidly diffused itself over the head, and led to the formation of unhealthy abscesses and the death of the child, clearly showing that the atmosphere of the lying-in ward was impregnated with the poison of erysipelas. These influences are scarcely separable from a general Hospital, and indeed it may be that even the presence of a post-mortem theatre close to the Hospital may be attended by emanations prejudicial to lying-in women, who are especially susceptible to influences of this kind.

The histories of the last two cases which died in the Nightingale Ward were curious and interesting, and illustrated certain practical points in midwifery. In the first of these, a case of twins, there was a long interval between the births of the first and second child, and, as there were two placentæ, there was a putrid placenta and cord lying in the uterus for some time. It would doubtless have been better if the woman had been delivered earlier, and the Hospital is perhaps not altogether implicated in this case. Still, it is quite possible that if this woman had been delivered at home, she might have recovered. At the post mortem the whole uterus was found to be gangrenous. The best practical rule for dealing with cases of this kind, when the birth of the second child is retarded, is not to wait too long. You may safely wait an hour, and then, if the presenting part be a foot or head, you can try the effect of a dose of ergot; but if the presentation be not natural, as happened in the case in question, you should introduce the hand and turn at once.

The second case was one in which convulsions occurred during labour. The patient was a healthy primiparous woman, and labour went on perfectly well for a certain time, and [illegible] convulsions; but in the [illegible] the labour the fœtal head became arrested in its passage through the pelvis, the pains ceased, and the uterus became exhausted.

The fœtal scalp rapidly grew puffy and swollen. There was a return of consciousness after the second convulsion. There was no great tenderness of the vagina, but the head was impacted in the pelvis, and there was great peril from sloughing of the soft parts. The whole train of threatening symptoms had developed in about two hours, and showed conclusively that in judging of the necessity for interference we must not be guided by the question of time alone, but take all the concomitant circumstances into consideration. Such cases admitted of no delay, and the patient was accordingly delivered by the forceps. It is probable that, in this case, the occurrence of convulsions was due to pressure on the pelvic nerves, causing sympathetic irritation of the nerve centres.

In using the forceps in this case, the vagina was slightly lacerated, but there was no laceration of perineum, and that in the vagina was a mere crack in the mucous membrane at the point where the head was arrested. Such slight lacerations are not uncommon in forceps cases. It was discovered immediately after delivery, and probably, if this patient had been delivered in her own home, no harm would have come of it; but in this case a post-mortem examination showed that malignant action set in around this small spot, and spread rapidly, and led to sloughing of the surrounding soft parts. There can be no doubt that in this case other influences were at work besides the slight laceration of the vagina. Both of these cases might have recovered under better conditions, but in a bad atmosphere the slightest injury often led to very serious mischief.

With such a state of things existing, with a progressively increasing mortality, it was time to take some decided step, and there was no help for it but to recommend the Committee to shut up the ward. Dr. Priestley had taken this step with very great reluctance. It was a great wrench to part with so important a section of the obstetric department. This ward afforded so many advantages to the teacher and to the students, and especially so not only in explaining the management of difficult cases, but in showing the pupil how to deal with those minor matters, such as the management of early infancy, of lactation, sore nipples, and the like, a knowledge of which is constantly needed in midwifery practice, and the successful treatment of which contributes so much to the comfort of the patient and the reputation of the Practitioner. The closing of this ward, then, was a great loss to the teaching appliances of the Hospital. But the interests of the patients were, of course, of paramount importance, and their material welfare must in all cases be the first consideration. All other good results were overbalanced if it could be shown that harm was actually being done to the patients. It was therefore an obvious duty to close the Nightingale Ward. The experiment of having a midwifery ward in a general Hospital had been fairly tried, but had failed.

It was to be hoped that the Nightingale Fund might yet be made useful in furthering the same objects which they had in view in founding the Nightingale Ward in King's College Hospital. It might be that rooms could be built on the pavilion plan outside the Hospital, or that rooms might be hired on the upper floors of the new houses that would be built in that neighbourhood. These rooms might be approached by an outside staircase, and only two or three patients placed in each room. By the adoption of some such plan as this, they might still be able to carry on this good work.

In the meantime, gentlemen must learn their practical midwifery by attending poor women at their own homes, in connexion with the out-patient department of the Hospital. This section of Hospital work was well organised, and every working and competent student could have an ample supply of cases allotted to him.

THE *Army and Navy Gazette*, quoting from the *Bengal Hurkaru*, gives a dismal account of the discomfort and actual hardships endured by the men of the Second Battalion of the 60th Rifles on their disembarkation at Calcutta from the steam transport *Euphrates*. After nightfall, at low tide, and during heavy rain, part of the troops landed, or rather "mudded." One man died of cholera almost immediately after going ashore. Considerable blame for mismanagement and unnecessary delay has been imputed to the military authorities. The sole redeeming point in this transaction appears to have been, that so far as the Medical authorities were concerned they had done all that in them lay, and that gharries were in attendance for the conveyance of the sick and the women and children.

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Medical Times and Gazette.

SATURDAY, JANUARY 25, 1868.

PROVINCIAL WORKHOUSES.—DR. EDWARD SMITH'S REPORT.

WE have before us a report, by Dr. E. Smith, of the inspection of forty-eight provincial workhouses, which he was requested to undertake by the President of the Poor-law Board in August, 1866, for the purpose of ascertaining "whether the arrangements for the reception, care, and treatment of the sick poor in the country workhouses are generally sufficient."

It is refreshing to turn from the sensational writing with which the public have been deluged *apropos* of workhouse reform, and read Dr. Smith's plain, sensible, uncoloured statement of facts. Dr. Smith states that he found some difficulty in selecting representative institutions, especially as many of the workhouses were buildings which had been converted from their original destinations into what are in fact Hospitals. He points out that the Poor-law system is in a state of transition, and that workhouses built after the passing of the present Poor-law are still comparatively new, while the condition of the poor and the opinion of the public as to their treatment have changed greatly during the past thirty years. "When the present workhouses were erected, the aged and sick poor were more generally allowed outdoor relief, and provision in the workhouse was chiefly required for the able-bodied, a large majority of whom were idle and dissolute. Now, the aged and some of the sick are brought into the workhouses, and the able-bodied inmates have, comparatively speaking, disappeared. Hence it must be manifest that, with so great a change of circumstances, equal changes in the construction and organisation of workhouses are required, and yet the fabric of a workhouse is not of itself changeable, and is not readily remodelled." Admitting the difficulty of converting rooms built for another purpose into sick wards, it is satisfactory to learn from Dr. Smith that the *best* of the sick wards in workhouses are "equal to any sick wards in the kingdom," and that the *worst* are far better than the houses of the poor. Indeed, this Report, on the whole, presents a tolerably cheerful view of the condition of our provincial workhouses, especially as to the general appearance and cleanliness of the wards, and the absence in them of such diseases as pyæmia, erysipelas, puerperal fever, and the like, which too often form the *bête noire* of our General Hospitals.

In looking over the reports of the different Unions, we were repeatedly struck with the remarkable discrepancies which are presented by Dr. Smith's *detailed* report and the general report of the non-Medical Inspector. This occurs again and again. We will, however, content ourselves by calling the

attention of our readers to one report in particular—viz., that of the Wimborne and Cranborne Union. Dr. Smith states:—"Mr. Hawley and I visited this workhouse on September 21, 1866. It is an old workhouse, situated on the level of a stream, which runs immediately adjoining the premises." After stating that the upper rooms of the Infirmary are built quite into the roof, and are *without fireplaces;* that there are *not any water-closets* or fixed baths; that itch cases and fever cases are admitted into this building; that there is scarcely any [illegible] and that in some of the rooms there are *no ventilators*—Dr. Smith very naturally reports that "it is totally unfit for the purpose, in site, construction, and accommodation." Now let us turn to Mr. Hawley's report:—

"Is the workhouse generally adequate to the wants of the Union, in respect of [illegible]? Yes!

"Is the provision for the sick and for infectious cases sufficient? Yes!!

"Are the [illegible] in a proper state? Yes!!!"

What *can* be the tint of Mr. Hawley's spectacles? *Couleur de rose*, we should imagine. Or is he afflicted with some species of moral blindness? But, putting aside the almost ludicrous character of these repeated discrepancies, they really demand very serious consideration on the part of the Poor-law Board.

We will proceed to summarise as briefly as we can the principal general recommendations contained in Dr. Smith's report.

First, with regard to the admission of cases of infectious disease—especially fever and small-pox—into workhouses, he states that such cases rarely, if ever, originate in the workhouses themselves, and that practically the small-pox and fever wards in many country workhouses remain empty for months and years together, as the guardians show great reluctance in admitting such cases from without. He recommends an extension of the system of admitting such cases, especially under the following conditions:—1. The prevalence of an epidemic. 2. Fever spreading in a family. 3. The existence of great destitution amongst the poor. 4. When there is sufficient workhouse accommodation both as to space and nursing

He recommends that special fever and small-pox wards for either sex should be provided at every workhouse, and that these cases should be as much as possible *isolated*.

That offensive and disagreeable cases should be kept in a separate ward, and that this ward should be one of the most open and best ventilated rather than the worst and closest as is now generally the practice.

The separation of venereal cases on *moral* grounds.

A separate ward for children where such cases are numerous. Under this recommendation, he notices the special prevalence of [illegible] in workhouses.

In all workhouses there should be a day room for the lying-in cases.

With regard to the situation of the sick wards, Dr. Smith thinks it desirable that they should be separated from the main building; but he does not insist very strongly on this, and, where so separated, he advises that the sick wards should not be far removed from the general building, as such a condition generally leads to an imperfect service and attendance on the sick. He recommends in every case the appointment of trained and paid nurses, and, when the pauper nurses are sufficiently [illegible] that the nurses should have no other duties to perform but attendance on the sick; and that *no male* nurse should ever be employed, as it is found practically that those wards which are tended by male nurses are always untidy and dirty.

A resident Medical officer should be appointed wherever the [illegible]; and in every case the guardians should provide drugs and appliances.

[illegible] for the sick wards.

He recommends the use of earth-closets in the upper wards; they have been found to answer well.

As to diet, he advises that the Poor-law Board should suggest a special dietary for the class of aged and infirm, and also a low dietary and a convalescent dietary for the sick.

But if we interpret this Report aright, it is not intended so much to criticise details as to supply a basis for general principles according to which existing workhouses should be improved and new ones constructed, and it will be learned with satisfaction that a kind of code of principles relating to all the larger details of workhouse management is under consideration by the Poor-law Board.

"SPIRITUAL WIVES."

Under this title Mr. Hepworth Dixon has given us a work treating of the existing forms of religion and philosophy (if we may so use these venerable names) which repudiate the marriage tie, and substitute some other basis for the relation between the sexes. In his former work, "New America," he delineated the new political and social combinations, such as Mormonism, Bible Communism, and Shakerism, which have been developed in the United States. These we brought under our readers' notice in an article entitled "Aberrations of the Sexual Instinct," in the *Medical Times and Gazette*, vol. i. 1867. We hold that that only is matrimony which consists in the union of one man to one woman "till death them do part." No other kind of union can fulfil one at least of the ends of matrimony—the rearing of children in the constant enjoyment of a mother's love, and with the benefit of such continuous training as shall make them healthy, happy, and useful citizens. All other relations of the sexes, whether it be that man and woman are to form a union for a limited time, or one from which sex is to be excluded, or one which is sexual but childless, or that a man may have many wives or a woman many husbands, or a certain number of men a certain number of women as tenants in common, we hold to be barbarisms, our own Divorce Court included. The philosopher who complains that he is tired of the wife of his youth, that her charms no longer rouse him, that her spirit is earthly and ungenial, and that there is another with whom his soul feels a more subtle and spiritual sympathy, is apt to forget his children and their just claim for a settled home—a thing incompatible with a change of wives. Nothing but matrimony as we understand it can develope man's nature to its highest extent, and all other arrangements are violations of that true sexual instinct which, in the whole animal creation, seeks not merely the gratification of the sexual appetite, but the welfare of the offspring. We made copious use of Mr. Dixon's "New America" to illustrate those sexual relations which we hold to be, as we say, aberrations, unnatural and immoral. His new work, "Spiritual Wives," may be regarded as exhibiting another view of the matter on which Medical philosophers ought to have something to say—viz, the contagious influence of folly, the existence of moral as well as of physical epidemics, and the manner in which trains of thought, in themselves innocent, laudable, and ennobling, may be so perverted as to lead not only to the vilest acts of impurity, but to a state of conscience in which the sense of guilt and shame are utterly lost.

All these contagious follies have a similar history. Certain persons, of pious and susceptible minds, feel anxious about their souls; they go through processes of religious awakening and emotion; the ordinary forms of devotion and the daily duties of Christian life are felt insufficient to satisfy their yearnings for fuller communion with the Deity. More exciting forms of devotion, filled with expressions that might typify human love, follow. Next comes a sense of full acceptance, of pardon of sin, of love for fellow-professors, of a desire for a Second Advent, and, in many instances, an idea that all

earthly enjoyments, including the union of the sexes, are obstacles to full perfection. This is the climax. To this succeeds a *finalis desecratus*. The believer, being dead to sin, cannot sin, and this takes the meaning that nothing which he does can be sin—that legal restraints exist only for persons under the law, from which believers are freed. Sexual union, from being a thing sinful in the unconverted, becomes a thing indifferent to the saint, till at last, to quote the words of one very far gone indeed, Father Noyes, "When the will of God is done in earth as it is in heaven, there will be no marriage. The marriage supper of the Lamb is a feast at which every dish is free to every guest. Exclusiveness, jealousy, quarrelling have no place there, for the same reason which forbids guests at a thanksgiving dinner to claim each his separate dish and quarrel with the rest for his rights. In a holy community there is no more reason why sexual intercourse should be restrained by law than why eating and drinking should be; and there is as little occasion for shame in the one case as in the other. . . . I call a certain woman my wife; she is yours; she is ——'s; she is the bride of all saints. She is dear in the hands of a stranger."(a)

This extract shows that extreme variety of the doctrine of spiritual wifehood which is called "free love," and exists in America. But Mr. Dixon's first volume is devoted to a history of the development of the doctrine of spiritual wifehood in Germany. It began at Königsberg about 1816, through the preaching of a poor fanatic called the Pauper Paraclete, and of a fashionable clergyman named Ebel. These men preached the Second Advent; the necessity of preparation; the duty of celibacy, but the privilege of intimate unsexual friendship between persons of opposite sexes. Ebel gradually attracted an immense circle of converts of the upper classes. He was constantly surrounded by beautiful women, who acted as his deacons and assistants. His relations with them were asserted to be of the purest. Nevertheless, if the testimony of one of his renegade disciples is to be believed, he took strange means of enforcing purity. "The method of sanctification used by Ebel is thought to have consisted in a series of lessons in Gospel freedom, which were meant to fortify the minds of his followers against the allurements of carnal beauty. A youthful member was trained by precept and example to use his freedom without abusing it. In the private meetings of the sect, some beautiful woman was persuaded to bare her arm, her foot, her shoulders, so as to present in the eyes of all the circle a living type of the temptations thrown by Satan in the ways of men." Such a union of spirituality in theory with sensuality in act was sure to excite the indignation of the outsiders, who gave to this sect the name of *Muckers*, which sticks to them still. Yet it is said that the number of their converts amongst the Prussian nobility was immense, and that it included the late King Frederick William IV.

The history that follows in Mr. Dixon's work is that of Prince, the celebrated founder of the Agapemone, whom we may claim as one of ourselves, since he was once a Medical student of the extinct Webb-street School, passed Apothecaries' Hall in 1832, and was for a short time resident Apothecary to the General Hospital at Bath. For an account of his history—how the religious idea took possession of his soul; how good and devout he was; how anything lower than spiritual love seemed too gross for him; and how he at last persuaded himself that he was an incarnation of the Holy Ghost; that he knew no sin, and could do no sin; that he was appointed by God to redeem our flesh from sin; how he founded and ruled the establishment called the Agapemone; and how here he completed the redemption of man's flesh from sin by a public marriage in which (so far as we can understand) such marriage rites as are usually consummated in a secret place with closed doors were done "openly in the light of noon, in the presence of all the male and female saints"—for all these things, and many more, we must refer to Mr. Dixon. The narratives of individual American cases of spiritual love and free love are highly curious illustrations of human folly.

One good feature in Mr. Dixon's book is that it will spread amongst all classes a knowledge of the dangers of emotion. The Physician knows too well how easy it is for emotion to pass from one set of feelings to another, and especially from piety to lust. Teachers of religion and morality seem terribly to ignore this. Elder Moore, a very pious man, was engaged in administering a "Sacrament." "As he moved about the church he became conscious of a singular swelling in his heart. His pulse beat quicker; his eyes opened wider. All through the morning he had been happy in his work, and blessed with a delicious sense of peace. Why was he now disturbed with so strange a joy? He longed to embrace the brethren, to throw himself into the sisters' arms. He felt a strange love for the young girls who were kneeling at his feet. This love, he knew, was like the love he felt for his heavenly Father. It sprang from the earth, but it knew no taint of sin. He felt that, in a mystical way, every one of these fair penitents was to him at that moment as a sister and a spouse." ("Spiritual Wives," vol. ii. p. 74.) This might be matched with a thousand examples from nearer home.

We advise Medical men to read this work, because it illustrates the fact that a whole people may be affected with an epidemic hysteria, no less than single individuals. But every epidemic has its starting-point; and if Prince, whose whole character and conduct seem to us illustrations of moral insanity, had come in early life under the care of a judicious Physician, he might have been taught that no man can do the will of God who violates his natural laws, that religious fervour must be kept within reasonable limits; and if he had been brought back to sobriety, the contagion of his teaching would never have filled the Agapemone with stupid Suffolk and Dorsetshire squires and parsons, and their wives and daughters.

If there be anything to take exception at in Mr. Dixon's book, it is that he seems not to hold soundly and firmly, as an Englishman, a religious man, a naturalist and philosopher should hold, the doctrine that marriage is an inviolable and indissoluble union.

(a) "Spiritual Wives," vol. ii. p. 56.

THE FEVER AT TERLING.

Since the publication of Mr. Alfred Haviland's special report on the above epidemic in our journal of the 11th inst, we regret to say that, instead of an abatement, there has been a rapid increase, both in the intensity and extent of the disease.

During the last fortnight the able-bodied agricultural labourers, who at first, to a certain extent, were free from fever, have fallen victims to it, and as nurses cannot be procured at any price, those even, who are still free, have been obliged to remain at home to attend to their sick wives and families; these are now succumbing daily to the fatal pestilential air of their habitations, so that not only are fresh cases on the increase, but relapses, from which few seem likely to recover, are frequent. The general impression is that, if energetic means are not adopted, the whole population of this ill-fated village will be swept away. Our Medical brethren are doing their work nobly, and we feel that the want of action among the authorities does not arise from a want of the best advice. We know that Messrs. Tomkin, Barron, Proctor, and Gimson have all done their utmost, not only in treating the disease, but in urging the necessity of systematically adopting those measures, which we feel convinced are the only means of stamping out this destroying fever. The Medical men are overworked far beyond their strength, and it is but just, it is but humane, that a staff of competent persons should assist them by seeing that their sanitary regulations are carried out to the letter. As we have said before, all the

excreta should be at once disinfected either by carbolic acid or chloride of lime, and water from afar should be imported without delay. On Monday there was a special meeting of the Board of Guardians, at which Messrs. Barron and Gimson were present. We hope the suggestions of these gentlemen, who are so practically acquainted with every detail of this epidemic, will, without a single moment's delay, be adopted.

Some two or three old wells have been closed, and a new one is being sunk. The Guardians have also provided Messrs. Proctor and Gimson with an assistant. The distress in the village is almost without a parallel. There are now 250 cases, and there have been more than 25 deaths from December 14 to January 20. Such a state of things is a comment in itself. We will, however, conclude by quoting the last paragraph in an article on this subject in our contemporary, the *Sunday Times* of the 19th inst.:—

"It is time for the authorities to call to their councils some one who will not only tell them what to do, but how to do it, and that at once, or else very soon there will be none left to tell the tale of this fever-stricken village."

THE WEEK.

TOPICS OF THE DAY.

The battle for the coronership of West Middlesex is still going on, but the combatants have become notably fewer. Of the Medical candidates, Mr. George Brown has retired, and only Dr. Hardwicke and Dr. Diplock remain in the field. The latter is believed by friends and foes to be so wealthy that it seems a wonder he should think it worth while to compete for such an office. Dr. Hardwicke, having the high claims conferred by previous services, is receiving the support of the Profession and of many of the most influential of the electors. Amongst his active supporters are Mr. George Cooper, of Brentford, and Mr. W. E. Farnall, of Isleworth.

The movement among the Medical men of Birmingham to obtain a higher rate of remuneration for Professional attendance on the members of friendly societies, which we lately noticed, has apparently arrived at an important point in its history. The Cannon-street Male Adult Provident Institution numbers about 7000 members, and possesses a reserve fund of £30,000. This Society employs about a dozen Surgeons, and its members pay yearly 2s. 6d. per head for Medical attendance and medicines. The actual sum paid last year was £836 5s. For this there were 4373 visits given and 25,154 consultations held at the surgeries of the Medical officers. This Society, therefore, has paid its Medical men 1s. per visit and 6d. per consultation, including all supply of medicines and the performance of operations. These facts were made the basis of a memorial from ten of the Medical officers, worded in a singularly moderate and respectful tone, and addressed to the Committee of the Society. The memorialists asked the Committee to suggest and recommend to the Society an increase in their present rate of remuneration, which should raise it to "a just" and, they hint, "generous" recompense for their services. The Committee point-blank "dismiss the application," sheltering themselves under the "rules of the Society," which, it seems, they wish mankind to regard as final, and request the memorialists to inform them in writing whether they are prepared to go on at the present rate of pay. Four of the Medical officers immediately tender their resignations, and there the matter rests until it can be seen whether any Medical men can be found to come forward for the vacant places of Dr. Neal, Messrs. Oakes, Ross Jordan, and Macpherson. We sincerely hope that none will present themselves. The memorial sent in by the Medical officers was courteous and moderate in the extreme; the behaviour of the Committee was characteristically offensive, and [illegible] a society possessing an enormous income and a reserve of £30,000 should offer so low a scale of Medical remuneration is simply monstrous.

The Gresham Professorship of Medicine, in the hands of Dr. E. Symes Thompson, has suddenly risen to its due importance and power as a means of spreading the true principles of physical well-being amongst the metaphorically dusty and greasy citizens. The largest attendance at these lectures, we believe, used to be, in the time of the old incumbent, about forty. It is now about five hundred. Portly Common Councilmen attend with the most profound attention to lectures on the causes of gout and dyspepsia—"And then to dinner with what appetite they may."

Zoology and archæology in the British expedition to Abyssinia are not to be represented by Lieutenant Beavan and Mr. Emanuel Deutsch. The former is prevented by illness, and the Council of the Zoological Society have nominated in his place Mr. William Jesse, of Maisonette, Ingatestone, Essex; and the Trustees of the Museum have sent Mr. Holmes, of the Department of Manuscripts, in place of Mr. Deutsch.

The question of payment for Medical services in public Hospitals has been opened at Harrogate, where a special meeting of the subscribers to the Harrogate Bath Hospital have declined to pay their two acting Surgeons a salary of fifty guineas a year each. Dr. Kennion proposed that the staff should consist of an honorary consulting Physician and two honorary acting Surgeons with the above salary. The meeting, led by the Rev. Mr. Collins, declined the proposal, and passed an enthusiastic resolution to elect one Medical Practitioner on such terms as shall seem to them most advisable for the interests of the Hospital.

There is a vacancy for an Assistant-Physician at St. Bartholomew's, caused, we believe, by the continued illness of Dr. Martin. We hear that Dr. Dyce Duckworth and Dr. Gee are amongst the candidates.

The Chair of Physiology at Charing-cross is not yet filled, but we hear that there are several candidates of high standing in the field. Amongst them is Dr. Crucknell, Physician to the Great Northern Hospital and Fellow of Oriel College

The searching party despatched by Government to obtain information of the fate of Livingstone, have returned with the best news. They discovered that the Johanna men under Moosa had deserted Livingstone, and the expedition assured themselves that he and his followers had safely marched fifty or sixty miles beyond the place where Moosa said he had seen him murdered. He will probably make his appearance by way of the Nile.

We understand that the managers of the Metropolitan Asylum District are about to erect at Caterham, near Croydon, an asylum for the reception of imbeciles. For this purpose it is proposed to purchase, at a distance of about one mile and a half from the railway station, seventy-two acres of land, the cost being £80 per acre. It appears that the site has been approved by the Poor-law Inspectors (Mr. Corbett and Dr. Markham) as being highly suitable for the purpose.

We hear that the Board of Guardians of Bridgewater have been interfering with the functions of the Coroner's Court by accusing a Medical witness, a private Practitioner in the town, of indecently treating the body of a person on which he had been required to make a post-mortem examination. The simple fact was that the body was left without being put into the coffin—an act which it was neither within the duty nor the power of the Medical man to perform.

ABYSSINIA.

The accounts from Abyssinia continue, on the whole, favourable. The European and native troops are reported to be enjoying average health. There has been a slight rainfall, as an instalment in arrears of the rain usual in November. It is considered hardly desirable that there should be much rain

just now, notwithstanding the scarcity of water in the plains, it being well known that unseasonable rains in tropical regions are generally attended by an increased prevalence of diseases of malarious origin. A hot spring has been discovered at Koomayler, the first depôt on the road to Senafé, about thirteen miles from Annesley Bay. It is expected that by means of pipes water will soon be conveyed from this source to the plains. Water has also been discovered by means of the American boring pumps at Andul, between Sooroo and Rayray Guddy. Meanwhile, on the plains a tolerable supply of water is being kept up from the condensers on board the various steamers. The supply of grain through the districts already traversed by the troops has been found scanty, owing to the recent drought and to the unsettled state of the country. Grass, however, is plentiful. The 33rd Regiment has been moved on towards Senafé, warm clothing having been borrowed for them from the Medical Department. It is creditable to the Medical authorities that they should have been in a position to contribute so materially towards the progress of the expedition.

THE NIGHTINGALE WARD IN KING'S COLLEGE HOSPITAL.

In another part of this journal we publish a report of a clinical lecture by Dr. Priestley on the closing of the Nightingale Ward in King's College Hospital. We call the attention of our readers to the importance of the subject of which it treats. It is a very interesting question whether we shall admit lying-in cases into our general Hospitals, and we think the experience derived from the experiment the history of which is given by Dr. Priestley decides the question in the negative. It is worth while to contrast the unfavourable results obtained in the cases admitted into the Nightingale Ward with the statement in Dr. Smith's report on provincial workhouses, that lying-in cases almost invariably do well in those institutions.

NURSING IN KING'S COLLEGE AND CHARING-CROSS HOSPITALS.

We are happy to be able to state that the changes in the nursing staff of these Hospitals have been carried out without any delay or inconvenience, and that the new arrangements are found to work in the most satisfactory manner. Mrs. Hodson has replaced Miss Jones as lady superintendent of St. John's House, and six ladies were at once found ready to co-operate with her. Three of these are engaged in King's College Hospital, and three at Charing-cross. It is very much to be regretted that, in these days, minor differences of religious opinion should be allowed to interfere with the plain catholic Christian duty of ministering to the sick and maimed. A large and increasing sphere of usefulness, and daily opportunities for the exercise of practical charity, should surely be thought of higher importance than matters which may certainly be referred to the lower influence of personal vanity and self-importance.

PROFESSOR HAUGHTON ON IRISH UNIVERSITIES.

THE grave question of the Irish Universities has been ably handled in a pamphlet which has just been published on this subject by the Rev. Professor Haughton, of Trinity College, Dublin. It must be mentioned that three distinct propositions are being canvassed by those in authority. The first is that Trinity College should be secularised by throwing open its fellowships and scholarships to men of all creeds; the second, that it should be converted into a national University to include the Catholic and the Queen's Universities, which should then be local colleges; and the third, that the Queen's Colleges and University and the University of Dublin being left in their present position, a charter and endowment should be given to the Catholic University. Professor Haughton discusses each of these proposals, and rejecting the two first, he gives his approval to the third. He considers that a union of the three bodies into one university would be simply the combination of incompatibles, and would be most disastrous. The secularisation of Trinity College he objects to on the ground that it is essentially a Protestant institution, and its properties belong exclusively to the Irish members of the English Church. He thinks, however, that the Catholic should have a university of his own, and he believes that the secular or Queen's, the Catholic, and the Dublin Universities might all live and prosper. For our own part, we find it difficult to express any decided opinion on the subject in the present condition of Irish political questions, and without that intimate acquaintance with existing *feelings* which only a resident Irishman can possess. This much, however, we are certain of: the graduates of the Queen's University consider that the endowment of a Catholic centre of education would be detrimental in the highest degree to the interests of the secular system, and they mean to oppose the projected charter in an energetic manner. One of the Dublin papers supports Professor Haughton's scheme, but the rest are unanimous in their disapproval of it.

BIRMINGHAM MEDICAL SCHOOLS.

WE are happy to announce that the amalgamation of the Medical Department of Queen's College and of the Sydenham School into one institution was decided upon on the 21st inst., after a prolonged conference of a large deputation from the Queen's College Council with the Sydenham staff. It is agreed that four members of the Medical Profession shall have seats on the Queen's College Council, and that ten members of the Sydenham College shall occupy similar positions in the amalgamated School. The scheme of last session is to be amended by consent, so far as concerns the monetary qualifications of governors.

THE SYSTEMS OF PROMOTION IN THE BRITISH AND INDIAN MEDICAL SERVICES.

THE *Indian Medical Gazette* of November 1 refers to a point of contrast hitherto little noticed between the British and Indian Medico-military services, but which is likely soon to assume sufficiently important proportions to render necessary some modification of existing regulations. We refer to the difference in the systems of promotion. In the Indian service an Assistant-Surgeon becomes full Surgeon in twelve years; in the British, until within the last year, the average period for promotion has for some time been a good deal below this standard. During the Crimean war, many Assistant-Surgeons obtained their promotion in six or seven years. The Indian mutiny in 1857 again accelerated the rate of promotion, but in the ten years of comparative peace which have since elapsed, it has been steadily becoming slower, and it is now nearly two years since any Assistant-Surgeon of less than twelve years' service has been promoted. So that, as matters now are, an Assistant-Surgeon of more than twelve years' standing in the British service, on going to India, will find himself in the disagreeable position of possessing lower rank, and, which is of still greater importance, receiving less pay, than men in the Indian service who have been promoted after twelve years. True it is that the emergency of a European war would very soon, on the other hand, restore to the Medical officers of the British service their former advantages, so that we should be unwilling to counsel them to forego such changes by seeking equalisation of the rates of promotion in the two services. The certainty of promotion to the rank of Surgeon in twelve years is surely not more than a fair compensation to the Medical officer entering the Indian service, with the prospect of so many years of inevitable exile before him. In the British service the various changes of scene and climate, the occasional tour of duty at home, and the *possibility* of earlier

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promotion in the event of a war, ought to go far to remove any jealousy that may be felt at the temporary advantage in respect of promotion enjoyed by the Indian service. At the same time we think something might be done towards modifying the anomalous state of affairs to which we have alluded. In the first and most important particular of pay, we think the Assistant-Surgeons of the British service in India, of more than twelve years' standing, ought to receive the pay of Surgeons, so as to put them on an equality in that respect with their brethren in the Indian service. In the second place, we do not see that there could be any valid objection raised to giving them the *local* and *temporary* rank of Surgeon, although they may only be performing the duties of Assistant-Surgeons. Such a procedure would rectify the anomaly which now exists, and which, if not remedied, will come more and more obviously under notice with the progress of time, and will be the cause of considerable dissatisfaction. By the recent warrant of the British Medical service, some such provision in the matter of pay as we have proposed already exists. Assistant-Surgeons of fifteen years' service—and a tolerably numerous class they will be by-and-by—are to receive the same rate of pay as is now given to their more fortunate fellows who have already obtained promotion; so that only the extension of this principle to the Medical officers of the British service in India of twelve years' standing would be required. So far from seeking to deprive the Indian Medical service of any of the advantages of the "twelve year promotion" system, we should be glad to see them increased by an enactment that, in case of an Indian war, the officers of that service should obtain their promotion in such shorter periods than twelve years as may be necessary to keep the establishment of full Surgeons up to the requirements of the service, so that they also might reap the full benefit of all the "chances of war."

WATER SUPPLY OF MALTA.

THE defective nature of the water supply of the villages and garrison of Malta, depending as it does to so great an extent on the accumulation and storage of the roof-drainage in underground tanks, has been long known. After a prolonged dry season this source of supply is of course seriously diminished, and the people must trust to wells in their courtyards or carry water from the public aqueducts. The wells and tanks in the villages are described by Dr. Sutherland, in his "Report on the Sanitary Condition of Malta and Gozo," with reference to the late epidemic of cholera, as being generally in dangerous proximity to "dung rooms and other nuisances;" and he also says that all the cholera deaths in the villages took place in houses in which the water supply was open to such objections, as well as deficient in quantity. The general condition of the water supply throughout the island being such as we have stated, taken in connexion with the fact that many houses presenting all the above defects in this important particular escaped the visitation of cholera, in our mind indicates that the connexion between the defective water supply and the occurrence of cholera in any particular house was more accidental than essential. While fully and freely admitting the injurious influences of defective and impure water supply, and of all other infringements of the laws of health, we must still maintain—Dr. Sutherland to the contrary, notwithstanding—that we must look to something over and above all such for the essential cause of cholera. However, it was not with the intention of vindicating the majority of our Profession from the imputation of having been the cause of the great amount of ignorance which still exists as to cholera, its origin, nature, and means of prevention, by their theories as to germs and communication by human intercourse, that we commenced these remarks on the water supply of Malta. We desired merely to put on record, as likely to have a favourable influence on the future health of the island, that we see stated in the *Malta Times* that extensive explorations for water have been made in various parts of the island, especially in the sandstone of the Marsa Valley, and in the marly districts beyond the ancient city of Medina, now called Civita Vecchia. Considerable success has attended the experiments. From the numerous shafts sunk at the Marsa, 400,000 gallons a day have been already obtained, and it is calculated that upwards of 900,000 gallons a day will be supplied from these sources, being more than double the quantity given by the two principal aqueducts upon which the cities before chiefly depended. With reference to the important discoveries of water made in the marl on the other side of the *Civita Vecchia* hill, the exact quantity they will afford has not yet been ascertained, but it is confidently believed they will double the supply at present obtained from the Wignacourt and Fanara aqueducts. We fear that as much cannot be said for the quality as for the quantity of this new water-supply, at least so far as regards that from the Marsa Valley, if it be from the source to which Dr. Sutherland alludes, the water from which, on being analysed by Mr. Abel, was found to contain 33·88 grains per gallon of sea-salt and 21·10 grains of carbonate of lime. Such water must be bad and disagreeable for drinking purposes, and for washing its hardness must render it unsuitable.

FROM ABROAD.—PARIS HOSPITAL RETURNS FOR 1867—REVACCINATIONS IN THE PRUSSIAN ARMY.

M. BESNIER, at the end of his monthly reports for 1867 on the Medical Constitution of Paris, which he supplies to the Hospital Medical Society, gives a table of the "Movement in the General and Special Hospitals during the year supplied to him by the Director-General of Public Assistance." A general summary of this, as exhibiting a picture of the relative prevalence of the different forms of disease during the year, may interest our readers. The total numbers of admissions are not stated as such, unless these are made up of the "dismissals" (*sorties*) and "deaths," which, if the former term implies recoveries, certainly cannot be the case with respect to all the forms of disease specified—phthisis, for example. However, here are the figures as given:—

	Dismissals	Males.	Females.	Deaths.	Males.	Females.
Typhoid fever	1407	980	427	324	209	115
Influenza	209	154	55	1	—	1
Variola	641	397	244	109	76	33
Varioloid	198	125	73	5	4	1
Scarlatina	76	62	14	8	6	2
Measles	341	298	246	91	41	50
Articular Rheumatism	1199	1288	711	21	17	4
Muscular Rheumatism	295	196	150	—	—	—
Rheumatism (unspecified)	493	320	173	5	2	3
Cholera	33	21	12	20	14	6
Laryngitis	174	101	73	9	5	4
Pertussis	92	32	60	12	6	6
Croup	70	38	32	124	55	69
Bronchitis	1241	2878	1385	184	117	67
Pneumonia	1268	896	372	702	436	266
Phthisis	943	1857	1208	2981	1794	1157
Angina	333	123	210	27	15	10
Embarras Gastrique	1884	1075	805	—	—	—
Dyspepsia	245	124	121	6	3	—
Gastritis	370	341	229	1	1	—
Enteritis	384	184	140	155	80	75
Diarrhœa	347	352	195	48	19	29
Dysentery	97	76	21	9	6	3
Icterus	257	155	102	28	18	10
Erysipelas	340	268	226	111	65	46
Delirium	303	196	7	2	2	—
Accidents	3078	—	—	324	—	—

The Prussian Government has for many years past published the results of the revaccinations performed in the army, and an account of the few cases of variola that have occurred. These we have always noticed as they came out, and now proceed to give some account of the figures for 1866. By reason of the military proceedings of that year, these statistics have been delayed, and are not so complete as usual; but they are presented in a much more elaborate form than before, and may be perused in detail in the *Berliner Klinische Wochenschrift* for December 9. During 1866, 42,269 soldiers were vaccinated or revaccinated. In this number, the cica-

trices of former vaccinations were distinct in 36,306, indistinct in 3739, and absent in 2224. These 42,269 vaccinations ran a regular course in 25,263 individuals, were irregular in their course in 5439, and produced no effect in 11,567. These 11,567 persons were operated upon again, in 3373 instances successfully, 8194 individuals still resisting the infection. Owing to the circumstances already stated, the numbers vaccinated of which we have here account are much smaller than usual, although the army was so much increased. In 1865 the number amounted to 65,776, and during the period 1833-65 there were 1,618,276 soldiers vaccinated. The general result of the year's revaccinations is, that they succeeded in 59·77 per cent. of the cases, and, adding the additional 7·98 per cent. derived from a second revaccination, in 67·75 per cent. This is somewhat lower than the results obtained of late years, which have varied from 69 to 72 per cent.

There occurred in the army, during 1866, 156 cases of variolous disease. Of these, 23 were examples of varicella, 119 of varioloid, and 14 of variola. Of the 156 cases, 91 occurred in persons who had not been revaccinated, 39 in those who had been unsuccessfully revaccinated, and 26 after successful revaccination. In the 91 non-revaccinated there were 6 cases of varicella, 72 of varioloid, and 13 of variola. In the 39 revaccinated without success, there were 5 cases of varicella, 33 of varioloid, and 1 of variola. The 26 successfully revaccinated furnished 12 cases of varicella and 14 of variola, but no example of varioloid. Of the 14 cases of variola observed, 13 persons had not been revaccinated, and 1 had been revaccinated without result. Of the 156 variolous patients, 8 died, 7 of variola and 1 of varioloid. This mortality from variolous disease in 1866 of 5·13 per cent. is very high for the Prussian army, the average having been for the years 1834-65 only 3·14 per cent. As the result of numerous trials of the vaccine lymph diluted with glycerine, as prepared by Dr. Müller, director of vaccine at Berlin, the military Surgeons give the decided preference to the arm-to-arm procedure.

NOTES ON MEDICAL EDUCATION.

THE SYSTEMS OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

No. VII.

Methods of Teaching.

To those of our readers who have followed us thus far in our comparison of the system of Medical education as it is carried out in this country with that adopted in France, it will have been abundantly evident that our chief object has been not so much to convey information as to the organisation of the French school as to exhibit, from an advantageous point of view, and with all the force of direct comparison, the shortcomings of our own system.

With this single object in view we have already considered most of the important points of divergence in the two systems—viz., as it affects the general organisation of the schools, the mode of appointment of the teachers, the curriculum, etc.

In our present article we propose to deal with a subject of paramount interest both to the teachers and to the students of Medical science—viz., the best method of teaching those subjects which enter into the curriculum of Medical studies.

It is doubtful if, in this matter, we have anything to learn from the French schools. In Paris, as in London, set courses of lectures are the means adopted and authorised for the purpose of teaching all the branches of Medical science. How far these courses answer the end for which they were instituted it will be for us now to examine. In Paris little, if any, attempt is made to render any part of these courses demonstrative; not even a diagram is used to illustrate these lectures, even when treating such subjects as anatomy and physiology, when such aids might be thought to be especially necessary. Not but what we are disposed to think that, in this matter of illustrating lectures by means of diagrams, many of our own Profession err in the opposite direction. A few judiciously selected and well-executed diagrams, not more than a dozen certainly at each lecture, may be made of the greatest use in illustrating subjects which it might be found difficult to deal with by mere verbal explanations. But when the student's attention is distracted by the exhibition of fifty or more diagrams at the same time—and some, by the way, of the most impossible and misleading nature—it adds to rather than takes from his difficulties. In order to teach well and thoroughly it is essential that the attention should be fixed and concentrated on a few subjects at a time, not scattered over a great number; and we have seen the majority of a class of students hopelessly bewildered by the rapid reference of the lecturer to a number of diagrams hastily indicated one after the other, not knowing on which in particular they ought to fix their attention.

The French professors dispense with diagrams entirely; and although we think this is a fault, it must yet be conceded to them that, owing to the precision of their language, their powers of happy illustration, and their native eloquence and vivacity, they generally contrive to make the subject they are teaching tolerably clear and intelligible to their audience. A few carefully chosen, skilfully drawn diagrams, then, are undoubtedly a help, a great number only a hindrance, in teaching.

But if we are to continue teaching Medical subjects by means of set courses of lectures—and we are by no means disposed to advocate their abolition, and to regard them, as some do, as useless for educational purposes—the question arises, What should the professor or lecturer aim at, in order to make his course instructive and useful to his class? We will endeavour to point out what appears to us to be his duty. In the first place, seeing that he has to deal with men who are absolutely beginners in the subject which he has to teach, he must be content to deal with *elements*; he must begin at the beginning, and he must avoid the too common error of introducing and overcharging his course with advanced original work, to the exclusion of that careful illustration and reiteration of first principles which form the chief elements of successful teaching. The mind of a lecturer should, if we may venture on so vulgar a comparison, serve the purpose of a filter. All the information, all the work, all the literature that can be got up, which bears on the subject of his course, should be, as it were, strained through his own mind; the comparatively useless, the uncertain, the superfluous, should be kept back, and the rich, pure, concentrated essence presented to his class, embellished with whatever eloquence or powers of illustration he may possess. It is the business of the lecturer to save the student labour by presenting to him the knowledge he has to acquire in the most attractive and most digestible form. A thoroughly good course of lectures, well delivered, ought really to save the pupils much, very much, laborious reading. It should present to him the very pith and essentials of the subject, and these should be forced on his attention by repetitions, and by the happiest illustrations at the command of the professor. Above all things, the lecturer should avoid digressions on collateral subjects. He should endeavour from the first to seize the student's mind, and keep it fixed on the single subject of the course.

Another point to which we would wish to call attention is the necessity of deliberateness in lecturing. A rapid, hasty lecturer can never be a good teacher. In such a case the attention of the pupil, at first overstrained, is rapidly exhausted, flags, and at length is entirely lost. Learning, as every one will admit, is essentially a slow process; teaching must be measured and slow too—not that it need be dull or heavy, but it must be *emphatic*. Another great help that a good lecturer is able to afford the student is in the *methodical* arrangement of his subject. The beginner, knowing nothing of the extent and nature of the study he is commencing, scarcely knows how to attack it to the best advantage. The professor should show him. It is astonishing how much time may be saved to the student by an easy and methodical arrangement on the part of the professor. It will, of course, always happen that some lecturers have much greater aptitude for imparting knowledge than others, while some subjects afford much greater scope for treatment by lecturers than do others. A subject such as anatomy had, doubtless, much better be handed over entirely to the demonstrators, being one in which set

courses of lectures are almost useless; while, on the other hand, such subjects as physiology, comparative anatomy, midwifery, pathological anatomy, and some others, afford especial interest in the hands of an able lecturer. We remember having the advantage, in our student days, of attending a course of midwifery which, for methodical arrangement, careful condensation, clearness of definition, and lucid illustrations, was a model in its way; and we have a distinct recollection of acquitting ourselves with some success at a severe examination in this subject without consulting any other source of information than our notes of this course of lectures.

If, then, all that we have stated be true, why is it that, at the present time, set courses of lectures are in such ill repute? It is because they are often carelessly put together, badly arranged, and hastily delivered. It is because, owing to the existence of numerous small schools, it is impossible to find enough able men—men fit for the work—to fill the professorial chairs. It is because many men take professorships, not because their heart is in the work, not because they like the occupation of lecturing, but because it will, they think, "lead to something else." It is also because in most of the schools, owing to the small number of students, no sufficient remuneration can be afforded the professor for the labour that his course entails. If, then, the professorial method of teaching, as it is carried out with us, is to be considered a failure, it is a failure for which our general scheme of Medical education is responsible. It is due to the following circumstances:—1. To the absence of a judicious and careful selection of teachers. 2. To the lack in our system of any means of training teachers, such as by the appointment of sub-professors, lecturers, tutors, etc., as is the practice in the Continental schools. 3. To the absence of any public or practical test of a lecturer's powers of imparting instruction before he is appointed to a professorial chair. 4. To the division of resources in our Medical schools, and the consequent insufficiency of the remuneration which, in the majority of cases, is offered to the professor. 5. To the mixing up of Medical schools with Hospitals, and the blending of the pursuit of practical Medicine with the teaching of elementary science. These and many other impediments exist in our present system, and tend to render teaching by means of lectures to a great degree useless and unprofitable. Notwithstanding all this, it will still be found that, wherever there is a professor who possesses decided skill and power in lecturing—wherever a really instructive course of lectures is given—there the class-room is filled with an attentive and well-conducted audience.

But excellent and useful as are set courses of lectures for the purpose of teaching the subjects of Medical education, there are also other means and other methods, which, although quite as useful in their place, are with us very greatly neglected. We allude especially to the demonstrative and tutorial method of teaching. Attempts have been made in many schools to introduce this method of teaching; but it has been done in only a half-hearted way, and the consequence has been that it has met with only partial success.

One of the first difficulties to be encountered in the adoption of the tutorial system in most of our Medical schools is that they have no means of *paying* tutors. The professors are naturally not willing to relinquish any of their fees, already too small, and in this present underselling age there appears to be no general inclination to increase the fees of the pupils. In order to get good tutors—men who will devote themselves heartily to their work—it is necessary that they should be fairly remunerated; and not only this, but in order that their work may be profitably carried out, they require, and ought to receive, the moral support and material assistance of the whole staff of professors. The tutor has especial opportunities of *demonstrative* teaching, from the familiar and leisurely manner in which he would naturally impart his instructions; he should, therefore, have at his disposal every means which is of a nature to help him in his work, such as preparations, specimens, and opportunities for experiment; and it is impossible that he should have them at his disposal without the cordial co-operation of the professors.

But perhaps we ought to admit that it appears to us next to impossible to carry out efficiently the system of tutorial instruction in our Medical schools as they are at present organised. With union of the metropolitan schools into two or three central institutions, where, owing to the large number of students which would be attached to each establishment, the available funds would be much larger than they are now at any one school, ample provision might be made for the appointment and remuneration of a sufficient staff of Medical tutors; and then each tutor might deal with but one or at most two subjects. Under existing arrangements, where there is a Medical tutor attached to a school, he is expected to be perfectly encyclopædic as to the amount of information he must possess. In some cases he is required to take his class in all the following subjects—viz., anatomy, physiology, chemistry, botany, and Materia Medica—and to resolve all the difficulties that may arise in the minds of the students in connexion with them. It is manifestly impossible that any *one* man can be an authority on each and all of these subjects. Imagine what would be the feelings of the Professor of Anatomy if he were required to give a course of chemistry, or the Professor of Physiology a course of Materia Medica; yet this is very much the kind of thing that is expected of the Medical tutor, and this plan seems inevitable in small schools—that is, if they have a tutor at all, and without tutors it is impossible to carry out thoroughly a demonstrative system of teaching. The professor may be anxious to make his course as demonstrative as possible, but he simply has not the time to dwell at sufficient length on mere demonstrations. In short, it is the natural business of the tutor, and is supplementary to the work of the professor.

Moreover, it is found, by those who have had great experience in teaching, that there are many men who can only be taught by the tutorial and demonstrative plan. They have not the power of fixing their attention for a sufficient length of time to follow with advantage the continuous teaching of the professor, but under the drilling of a skilful tutor they may be made to learn readily enough. These are the men that find their way to the "grinders." They are compelled to seek outside their schools what they should be provided with, in a better and more wholesome form, in them.

Another advantage of the tutorial method is that the tutor is able by familiar intercourse to know something personally of the character, habits of mind, and intellectual calibre of each of his pupils, which it is next to impossible that the professor can do. The tutor is able to watch and guide and direct the development of individual minds, to correct erroneous tendencies, to check false or hasty conclusions, and to bring the student's mind more directly under the guidance and influence of his own. At the same time, and for the same reasons, he can form much better than the professor can do a just estimate of the progress each student is making. He can stimulate the idle, encourage the weak and despondent, and moderate the energy of the over-anxious. All these functions are extra-professorial, and fall naturally to the lot of the tutor, and where there are no tutors this work is left undone.

Then, again, the tutorial system, as was very ably pointed out by the Archbishop of York in his address on Medical education at St. Mary's Hospital, has this advantage over the professorial method—viz., that it engages *actively* the *attention* of the student; he has to produce as well as receive, to give as well as take. "I am quite sure," says the Archbishop, "that this kind of active attention is very easy on the part of the pupil, whereas what I call passive attention—the attention which receives and gives nothing back—is extraordinarily difficult to maintain. I could not undertake to sit on this hot day for two or three hours in succession and listen even to the most brilliant lecturer, remaining passive the whole time, and say that at the end I could remember all that he had told me, or even half of it. In fact, if I were one of a large attendance at lectures, I would not undertake to say that some of those listeners might not towards the end have declined into sleep. Such a state of things would have nothing to do even with the brilliance of the lecturer. It is a law of nature that my mind can be acted upon if it is allowed to react. You will observe, no doubt, that I am taking a very one-sided view of the subject. I am maintaining the cause of the tutorial system wholly against that of the professorial system. And why? Not that I do not see great advantages also in the professorial system of other kinds, but that I do think, on the whole, for a place where subjects are to be taught to the average run of men, where you consider the man more than the subject, the tutorial system in some of its modifications is the system most profitable to be employed."

There can be little doubt, then, that a combination of the professorial and tutorial methods of teaching is the best, and we imagine that it would be found extremely difficult to controvert this proposition. Yet what is the actual fact? The actual fact is, that in the generality of our Medical schools attendance on professorial courses is insisted upon, and nothing

but set courses of lectures are trusted to as a means of education; while in none—and we speak with great deliberation—in none is the tutorial method given any great importance. In those schools where a tutor or tutors exist, attendance on their demonstrations is quite optional, and for convenience of teaching, suitable hours, etc., they have to give way to every other authority. It is not to be wondered at that, under such chilling influences, no great success has attended its introduction into our Medical schools. We should be sad indeed if we thought the method of teaching Medical science was to remain always in the same condition that it now is. Reform will come, no doubt slowly, perhaps very slowly, but the progressive influence of truth and common sense will at length prevail over the obstructive tendencies of self-interest and routine.

It is with this hope animating us that we have written the preceding articles. Our next article will deal with the subject of "Examinations."

MEDICAL TEACHERS' ASSOCIATION.

(*From a Correspondent.*)

THE address which Mr. Simon delivered to the Medical Teachers' Association on Monday night must have been as gratifying to the advanced Liberals as it was painful to the Conservative members of the new Society. Indeed, it proves to us that our anticipations as to the impossibility of the Association's success in its efforts to reform education were well founded. What can be expected of a body which is, in the main, Tory in its principles, and whose president is an ultra-Radical? We have no wish to throw cold water on those who have laboured to modify the present cumbrous machinery of Medical education, but we are convinced that the attempts of the Teachers' Association will end in complicating, rather than in simplifying, the existing system. Mr. Simon insisted on the necessity of establishing a reliable test of Medical knowledge, and of doing away with the existing plan, by which not only is the public unprotected, but the process of education made more complex than it need be. Mr. Simon's argument is this: If the examination for a degree or diploma be incapable of establishing the candidate's qualification to practise Medicine or Surgery, why adopt it? If, on the other hand, it be a sound guarantee to the State, what need to supplement it by a scheme which is both elaborate and expensive? It must, he said, be conceded that by a proper system of examination the knowledge of a candidate could be thoroughly and exactly determined. Admit this, and what remains to be said for the compulsory and troublesome method of lectures, schedules, certificates, and so forth? Why should any one who is able to show that he possesses the necessary knowledge be debarred from practice because he has not attended—not to the lectures, but—in the lecture theatre of a school for a certain number of hours a year. Then, again, let it be asked, "Are the existing examinations a real test?" and the answer must be, in many instances, they are not. In evidence of this, we have the fact that the Army does not recognise the qualifications of candidates as sufficient proof of their fitness, but submits them to a six months' training in the very subjects they are supposed by the examining boards to be already acquainted with. There is much, too, to justify this scepticism on the part of the authorities, as Mr. Simon showed. Six candidates some time since examined by the Navy Board, and all of whom were Licentiates of the College of Surgeons, were reported on as follows:—"No. 1. Passed good. No. 2. Passed indifferent. No. 3. Rejected; deficient in Anatomy and Surgery. Similarly with Nos. 4 and 5. No. 6, also rejected; *ignorant in all subjects.*" In the face of such testimony as this, it must be confessed that there is reason for a thorough reform in Medical education; but we fear that the Teachers' Association is not the body from which to expect any important results of the kind. We say this in no spirit of antagonism, but from the fact that the first effort of the Society has been to bolster up an old and mischievous system—that of compelling a definite number of sittings in the lecture theatre, which it ought rather to have taken measures to modify or remove. Among those who opposed the resolution passed on Monday were Dr. Russell Reynolds, Dr. Anstie, Dr. Bastian, Dr. Lawson, Mr. Christopher Heath, and others, who sympathised with the enlightened views of the President; but their votes were overwhelmed by a majority which, though apparently desirous of reform, have taken a step which is decidedly in the wrong direction.

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

(*Continued from page* 74.)

The Dupuytren Museum: its Extent and Excellence; Want of a Catalogue—M. Gosselin's Clinique at la Charité—Fractured Patella—Non-use of Malgaigne's Hooks in Paris—Clinical Lecture by M. Gosselin—Pyæmia after Incisions for Stricture of the Rectum—Fractures of the Lower Jaw—Suppuration after Puncture of a Hydrocele.

December 26.—At the Dupuytren Museum. The several Hospitals in Paris have not, as with us, each its own pathological collection. Here everything is centralised, and all the Hospitals contribute to the grand museum which Dupuytren founded. The result of this combined effort is that the museum in some features excels any one that we have in London. I say in some features, for as a whole it bears no comparison with the Hunterian Museum, either in extent or in arrangement, and in many single points several other of our Hospital collections exceed it. In making any comparison between it and the Hunterian Museum, we must recollect that the latter is a mixed collection, whereas here pathology alone is illustrated. The Orfila Museum (close by) is devoted to anatomy, human and comparative, and the Dupuytren collection contains only pathological specimens.

The preparations are all contained in one large hall without gallery. They are well displayed, and without crowding, and each has attached a short written statement as to its nature, with very frequently a reference to some published statement regarding it. One meets over and over again the honoured names of Cloquet, Velpeau, Cruveilhier, Malgaigne, Broca, Jobert, and Nélaton. The name of the founder occurs but seldom, but in all probability a great proportion of the old anonymous specimens are the contributions of his industry.

It is much to be regretted that there does not exist a catalogue of this collection. The descriptions, or rather designations, which are appended to the specimens themselves, are far too brief to supply the place of a catalogue. Of that part of the collection which comprises the osseous system, a detailed and illustrated catalogue was prepared by Denonvilliers and Lacroix in 1832, but the rest of the Museum is still undescribed. The curator, M. Houel (a relative, I believe, of Dupuytren), has published a valuable work on Pathological Anatomy, appended to which is a list of the specimens, very useful in its way, but not descriptive. The instances are exceptional in which M. Houel allows more than a line to a specimen, and, of course, all histories are omitted. There does not even exist a manuscript catalogue (at least not an accessible one), nor is the partial one published by Denonvilliers kept in the room. In making these remarks I by no means wish to fail in gratitude to M. Houel for what he has done. His list is extremely useful, and the collection is in excellent order. I have never visited a museum in which it was more easy to find what one wanted, or to see quickly what was there. I may mention also, as an example to some home institutions, that no difficulty was put in the way of my having drawings made of some of the specimens, nor to my having access to it out of hours for that purpose.

December 28.—Visited M. Gosselin's clinique in La Charité. The wards are crowded, and deficient both in light and ventilation. The building is old and not at all fitted for its purpose. All the windows are high up, quite above the level of the head of the tallest man. Paris Surgeons generally seem to be keenly alive to the defects of construction of the buildings in which they have to work. Everywhere I hear the same complaint, "The Hospital is old and badly built."

Amongst the cases under M. Gosselin's care was one in which the arm had been amputated a few days before. The stump was unhealthy, and was dressed with carbolic acid. The man looked ill.

Another case which interested me was an instance of fracture of the patella treated by the use of an immovable apparatus in the form of silicate of potash bandage. This bandage is exceedingly neat, and much thinner and lighter than plaster of Paris. I may remark by the way, in reference to the treatment of fractures of the patella, that Malgaigne's hooks, recently somewhat employed in London, seem to be quite forgotten in their home of origin. Every one assures me

that they are never used here, and more than once I have had to explain their nature before my inquiry could be answered.

M. Gosselin was attended by a large and very attentive class, the largest I have seen in Paris; it included one lady, an American, I believe. A few remarks were made at the bedside of most of the patients, and at the conclusion of the visit we adjourned to the adjacent theatre and listened to a very excellent clinical lecture.

M. Gosselin took for his subject four cases which had been under notice during the last week; in illustration of two of them he produced specimens and drawings.

The case first mentioned was one of stricture of the rectum with fistulæ, in which several incisions for the relief of the stricture had been tried, and death from pyæmia had resulted. The patient was a man aged 53, who had suffered for several years, and who was in extremely bad health when admitted. As the sufferings in connexion with defecation were great, M. Gosselin deemed it justifiable to incise the stricture at several places. The exact nature of the disease, whether malignant or not, was uncertain. After the operation the man had rigors and the usual symptoms of purulent infection. At the post-mortem deposits were found in the lungs and liver, and there was purulent pericarditis. On dissection of the specimen there did not appear to be any proof of its cancerous nature. The bowel was greatly contracted, and its coats indurated, but there was no new growth. M. Gosselin carefully discussed the question of differential diagnosis, and suggested that the stricture might possibly be the consequence of syphilitic ulceration. He showed a drawing which illustrated an almost similar state of things, and which had been taken some years ago from a patient under his care, in which there was no doubt as to the syphilitic nature of the disease. He remarked, in passing, that these conditions, even when syphilitic, are scarcely to be considered as constitutional, and that they are not much under the influence of internal treatment. They are local diseases ("topographiques"), and demand local measures.

As regards the immediate cause of death, M. Gosselin showed that the mucous membrane of the bowel for a considerable length above the strictured portion was ulcerated, and he supposed it quite possible that the man was already pyæmic before the operation.

The next case was one of death from cancer of the uterus which I need not detail.

Then followed a case of fracture of the lower jaw, with other injuries. A very important remark was made in reference to this case. It is this—that when in fractures of the lower jaw the structures of the gum are broken through, the fracture is, in reality, a compound one, and the patient will have to run the risks of osteitis and pyæmia. I have often myself drawn attention to this, and it was with much pleasure that I heard its importance insisted on.(a) M. Gosselin stated that whenever the gum was much torn up, inflammation of the bone, with suppuration and constitutional disturbance, was very likely to follow, and the patient from the 10th to the 14th not unfrequently became feverish and ill. In some cases exfoliation of a fragment is safely accomplished, but others end fatally from purulent infection. He strongly deprecated interference with the fragments (tying with wires, internal splints, etc.) as likely to increase the danger of local inflammation and its results, and, averring that such fractures are rarely followed by deformity, advocated external support only.

The fourth case mentioned was one in which acute fœtid suppuration of the tunica vaginalis had followed the simple puncture of a hydrocele. At the time of the puncture some false membrane appeared to exist in the sac, and the escape of the fluid was impeded on this account. The injection which had been intended was not done. The patient afterwards had severe febrile disturbance, and acute inflammation of the part. It had been necessary to make free incisions, and much fœtid pus had been let out. It was hoped that the patient would now do well.

M. Gosselin's lecture occupied about an hour, and was delivered with admirable clearness and method.

(To be continued.)

The Duke of Cleveland is to preside at the University College Hospital dinner which is to take place on February 25, at Willis's Rooms.

(a) I may add that there is another fracture not usually counted as compound which is very serious. I refer to fracture of the petrous bone involving either the Eustachian tube or the external ear. Many patients die of pyæmia after these who would otherwise recover.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

Paris, January 22.

The Academy of Sciences has given a successor to Flourens in the important post of Perpetual Secretary. The two competitors were M. Coste, the celebrated embryologist, and M. Dumas, the chemist, who formerly held the Chair of Organic Chemistry at the Faculty of Medicine, and who, during the latter years of republican government, was for some time a member of the Cabinet. The vacant dignity was conferred upon M. Dumas, who will probably, in compliance with a time-honoured custom, be elected a member of the French Academy.

Professor Claude Bernard, who would probably have been selected if the state of his health had allowed him to enter the lists, has been named Vice-President, and will in consequence be President for the ensuing year.

The Medical prizes which the Academy annually distributes, gave rise to a sharp contest this year. Although the names of the successful candidates have not yet been published, I happen to be able to send you the list before its official appearance. The prize for physiology was given to Dr. Cyon, of St. Petersburg, for his experiments on the nerves of the heart. The prizes for Medicine were the object of a warm contest. Three prizes were awarded. The first was given to M. Chauveau, the well-known physiologist and veterinarian of Lyons, for an elaborate essay on cow-pox. M. Chauveau has ascertained that when the vaccine lymph is injected into the veins of a heifer, the result is a general eruption of cow-pox, which makes its appearance on the eighth day after the operation. In the horse the same experiment gives rise to the horse-pox.

Inoculation of vaccine lymph under the skin or on a mucous membrane produces a local pustule, which five days after the operation confers an immunity from the disease, and impedes all general eruptions. The fact has been proved by a very ingenious experiment. After inoculating a calf by the usual method, M. Chauveau cuts out the part, and allows the wound to heal. On the eighth day a general eruption takes place, showing that the vaccine lymph had really entered the blood, and produced a general disease; but that the presence of the local pustule prevented it from showing itself by an external manifestation.

Two other prizes were awarded, one to Dr. Lancereaux for his work on syphilis, and one to Professor Courty, of Montpellier, for his book on female diseases.

Three *honourable mentions* were granted—1, to Dr. Foissac, for a work on climatology; 2, to Drs. Hérard and Cornil, for their book on phthisis; and 3, to Professor Max Schulze, for a very remarkable paper on the structure of the retina. The only reason assigned for not granting a full prize to this highly valuable production was that it belonged too exclusively to anatomical science, and was not sufficiently connected with Medicine.

Lastly, two *encouragements* were granted—one to Drs. Prévost and Cottard, and one to Dr. Bouchard, for researches on cerebral pathology.

Two very important papers were set aside for another year. The first, by Dr. Villemin, treats of the inoculation of tubercle.(a) The Academy, although highly interested by the author's experiments, does not yet feel able to pronounce a judgment on the subject, and wishes, therefore, to let the matter rest for a twelvemonth. This prudent reserve has also been adopted with respect to an interesting communication by Dr. Bergeron, on the accidents produced by mercury, which he attributes to a peculiar alteration of the pancreas. There is great wisdom in this mode of proceeding; and it would be well for scientific bodies, when called upon to give their opinion upon such doubtful subjects, to say, like a Scotch jury, "Not proven," and wait patiently till decisive experiments have settled the question.

The Ministry of Public Instruction has published a series of elaborate reports on the progress of the sciences in France from the beginning of the present century. The report on Medicine, by Dr. Béclard and Professor Axenfeld, will be read with interest by those who delight in scientific erudition. The

(a) The views of Dr. Villemin are at this very moment being discussed before another scientific tribunal—the Academy of Medicine.

report on Surgery, by Drs. Guyon and Labbé, will prove more attractive for the majority of Medical readers. But the most valuable of all this series of reports is that by M. Cl. Bernard on physiology. In deeply-meditated, well-written, and impartial statements, the immense advance made by that branch of science, and its now intimate connexion with Medicine, are set forth in the strongest light.

An epidemic of small-pox, of unusual severity, is at present raging in Paris. In other respects, the public health is excellent, in spite of the severe cold which prevailed at the beginning of the year, and of the rainy and windy weather which followed immediately afterwards.

GERMANY.

FRANKFORT.

THE new feature in last year's Congress was the formation of a section for public hygiene, which had hitherto been wanting, and, perhaps just on this account, was more fully attended than any of the other sections. Three principal questions were proposed for discussion—viz., the etiology of typhoid fever, the drainage of towns, and the causes of the excessive infantile mortality.

As regards the causes of typhoid fever, it is well known that Professor Pettenkofer and M. Buhl, of Munich, have lately drawn attention to the rising and falling of the subsoil water as an important element in the etiology of disease. Regarding this point, Dr. Jürgensen, of Kiel, remarked that he had collected all cases of fever which had occurred in Kiel from 1850 to 1866, and had found that the minimum was obtained in March, and that then a slow increase took place, which became more rapid in June; the maximum was reached in September and October, and from November the numbers fell again until March. The dry or damp state of the atmosphere had no influence on the course of the disease; but in dry weather the cases were more frequent. In 1865, when it was extremely dry, there had been a very extensive epidemic. Observations regarding the state of the subsoil water had only been made for about a twelvemonth, and correct conclusions could therefore, as yet, not be drawn from the same.

Professor Pettenkofer said that, in Munich, there was likewise a great regularity as regards the season in which fever occurred. The maximum, however, was not always in the same month, but sometimes extended over six weeks. He was of opinion that the moistening of the soil was the cause of the fever. The regularity in the proportional amount of fever and subsoil water was such as compelled him to assume a connexion between the two. Professor Buhl had shown that if, instead of comparing the mortality of fever, we compared the number of cases with the state of the subsoil water, the facts appeared even more strikingly conclusive. The objection that the epidemic of 1865-66 had been caused by a corresponding increase of the population had been satisfactorily disposed of. Some had expressed the belief that the total mortality of Munich was just as much connected with the variations of the subsoil water as the mortality from typhoid fever. But such was not the case. If the deaths from fever were picked out of the entire number of deaths, it appeared that fever was the most frequently fatal disease in Munich, but that phthisis, which was second in the list, had nothing whatever to do with subsoil-water. Other observers laid great stress on fever-nests, and the condition of the privies and cesspools; but these had been in much the same condition during the last ten years, and yet there was no epidemic in 1860-61 and 1866-67, while there were severe epidemics in 1857-58 and 1865-66. During an epidemic, entire parts of the town became fever-nests, while, if the cases were sporadic, a few houses were singled out. An epidemic had always a more general cause. The poison of fever was a specific one; its nature was not known, except that it consisted of putrid matter. Some observers had asserted that it only came from the evacuations, and consisted of fungi. This was, however, a mere supposition. It was necessary to investigate the causes favourable for the origin of fever in every single town, and chiefly the degree of porosity of the subsoil, which in Munich, where it was very porous, contained more than one-third of air. The water had there a considerable fall towards the Isar river. Clay, on the contrary, was nearly impenetrable to water; dry clay-soil had 60 per cent. of pores, but it also contained water, which was only removed by evaporation.

Dr. Horn, of Bremen, said that extensive epidemics were extremely rare in that city. On one occasion, when the level of the river Weser had been very high, the water did not flow off from a few houses, and there six cases of fever occurred. In another part of the town, the building of a railway had prevented the flowing off of the water; and fever there broke out after it had rained for some time. Dr. Lorent, of Bremen, said that during the last thirty years he had not seen a real epidemic of fever in that city. In the General Hospital there were annually from thirty to forty cases. Thirty-five years ago a horse had been buried in the neighbourhood of a well, and many of those who had drunk of that water had become affected with fever. The soil was sandy there. The level of the subsoil water was lowest in September, and highest in March. Fever had generally its maximum in September. Dr. Varrentrapp, of Frankfort, said that in that city the mortality from fever was very slight indeed, there being on the average only fifty deaths annually from it. The increase occurred in spring and autumn, and, if the autumn happened to be warm, the epidemic was generally more extensive.

Professor Virchow remarked that it was more important to investigate the nature of the impurities given off by the subsoil water than to note its level. In Berlin, cholera had chiefly occurred in the new parts of the town, while the level of the subsoil water was very equal about the whole city. The subsoil water might promote the dispersion of the poison, but it was better to seek for the poison itself and the focuses from which it spread. Besides the subsoil water, the soil which was overlying it, and the special condition of each focus, ought to be inquired into. Typhoid fever affected only a small portion of the intestines, and not nearly the whole of Peyer's patches, and the solitary follicles. He did not see any reason why the poison should select those places, and was inclined to believe that it was local infection in those spots where the poison was longest retained, and where it thus could act more thoroughly by contact. There was no evidence to show that an epidemic was caused by inhalation of the poisonous principles, but rather that the poison came into the system by the drinking water. If fever occurred in newly built places, the material used for building was often the cause of it.

Professor Pettenkofer said that typhoid fever was a specific infectious disease, and occurred in certain places more frequently and in a more severe form than in others. Even in places which were the ordinary habitat of the disease, it appeared at different times with different extent and intensity. It was important to determine the time and the locality when and where the fever chiefly appeared. Impurities and dirt in houses and their neighbourhood, a deficient system of collection and removal of fæcal matters, bad drainage and impregnation of soil with noxious substances, and bad drinking water, were generally looked upon as promoting fever, because experience had shown that where all these things were carefully attended to fever was diminished. Impurity in houses, bad drainage, and bad drinking water, were, however, not sufficient to explain the appearance of fever in different places and at different times, because the same conditions occurred in localities where there was *no* fever; and in those places where there *was* fever, they remained nearly equal all the year round; and yet fever was more extensive and severe in some years than in others, and in some seasons of the year more than in others. Thus, the acme for Kiel was September and October, and for Munich January and February; but at the same place the acme always occurred about the same season of the year. At present it appeared highly probable that certain conditions of soil and water had an essential influence upon the local development and the periodic growth of the poison, the nature of which was hitherto unknown to us. Soil had chiefly influence on locality, water on periodicity. Typhoid fever, as other zymotic diseases, liked a porous soil better than a compact one, and epidemics coincided generally with the stage of diminished water in the porous strata of the soil. Inasmuch as the soil of certain localities appeared to produce larger quantities of the poison periodically, the same might be communicated either to the water in the soil or to the air in the soil, and thus be carried into the system. It was therefore important to ascertain by which of the two agents the poison was propagated. Professor Virchow had laid particular stress on the predisposition of a certain portion of the intestines, but the proofs for the mode of reception of the poison, which he had deduced therefrom, were not convincing. Air also carried matter into the stomach. The bulk of the air daily received was enormous, if compared with that of the food taken, since 8640 litres of air were inhaled within the twenty-four hours, while only about one litre of liquid was consumed during the same time. Most people were possessed by the erroneous

idea that the air ceased on the ground; air, on the contrary, was contained in the depth of the soil, wherever this was porous, and took part in all the movements of the air above ground.

The examination of the condition of the soil had to comprise —1st. *The configuration of the surface.* For all towns where typhoid fever existed, accurate maps of the level, with horizontal curves, ought to be prepared. 2nd. *The geognostic state and the physical aggregation of the soil*, from the surface to the first impermeable layer, which generally extended to the subsoil water. 3rd. *The porosity of the soil in its different strata.* This might be determined by filling an empty measure with a specimen of soil dried at 212°, and continually squeezing and pressing it, until a diminution of bulk was no longer perceptible, and by then adding so much water as to fill up all the pores. It should then be stated how many volumes of water were required for expelling every particle of air from 100 volumes of the dried soil. 4th. *The affinity of the different strata of the soil to water.* This could be determined by noting how much of the water added to the specimen of soil, as above, would flow off by its own gravity, and how much was retained by adhesion to the surface of the material. 5th. *The amount of organic matter.* The quantity of this might be determined by combustion, and its quality by chemical, and chiefly by microscopic, investigation. The latter should be repeated once a month in the same layer of the soil. 6th. *The amount of organised and not organised organic matter.* According to Schönbein, this might be done by catalysis of peroxide of hydrogen through organic cells. This method was, however, not accurate, if there was any oxide of iron in the soil.

The amount of moisture in the soil might be examined in several ways. In Munich, observations on the subsoil water were sufficient, and would probably be so for many other fever places. Subsoil water was no peculiar water of itself, but atmospheric water penetrated into the soil. By subsoil water he meant such an amount of water in a porous layer of soil as would be found where air was entirely driven out from the pores, and where these latter were quite filled up with water. The aim of "subsoil-water observations" was to note the rise and fall of this fixed degree of moistening in the upper porous strata of the soil, which were differently impregnated with organic and inorganic matter. It seemed impossible to assume that the subsoil water was the place where the fever poison germinated, because fever in many places coincided regularly with the sinking of the subsoil water, just as was the case with cholera in Calcutta and Bombay. He doubted the possibility of the propagation of the infectious matter from one house to another by means of the subsoil water.

As far as the house-wells of a place were made in the uppermost porous strata of the soil, and not beyond them, they might serve as a standard for the variable moistening of these layers, and be used for subsoil-water observations. It was, however, indispensable to see that, at the time of the measurement, the level of the water should not have been changed by previous pumping. Otherwise it would be preferable to make special shafts. It would depend upon the individual conditions of level, drainage, and soil, in as far as these might influence the formation and accumulation of subsoil water, how many points of observation should be taken for one single place. For Munich, five different observatories had been found sufficient, of which two were on the right side and three on the left side of the river Isar, at a distance of about a thousand yards from the river itself. He measured the water from a fixed point in the well to the level of the water, by means of a rod or a piece of tape covered with tar, at the lower end of which small cups were fixed, at a distance of about an eighth of an inch each, which, on being removed, were found filled with water. The uppermost cup that was full indicated the distance of the level of the water from the fixed point on the surface. For Munich it had been found sufficient to take these measurements once a fortnight. He had also undertaken the analysis of the solid constituents of this water in different parts of the town. This showed that the soil of the houses was gradually lixiviated, and that at different times there were considerable variations in the quantity of solid matter. In fever places, the fever houses and fever quarters ought to be carefully examined, not only as regards the surface and the domestic conditions, but also as far as the quality of the subsoil was concerned.

After this a long debate took place on the drainage of towns, in which Dr. Varrentrapp (of Frankfort), Professor Pettenkofer, Dr. Thudichum, and others took part. The general feeling of the meeting seemed to be in favour of water-closets and irrigation, but the assembly declined for the present to commit itself to the recommendation of any special system. The debate on excessive infantile mortality was, for want of time, adjourned till next year.

BIRMINGHAM.

JANUARY.

QUEEN'S COLLEGE is not quite free from its difficulties. It would appear that its affairs resemble very much the condition of "out of the frying-pan into the fire." The despotism under which it prolonged a painful existence at the hands of one man, would seem now to have arrived at a culminating point under the administration of its present officials. Certainly they manage these things better in France. The re-election of Professors was to have been most quietly conducted, quite *sub rosa*, on December 23 last; but lo! the trumpet of amity was sounded by the Sydenham School in Summer-lane, and the amalgamation of the two Schools of Medicine announced as a possibility. Hence the present Professors are allowed to hold office for the remainder of the term, simply because the Council could not possibly dispense with their services.

With respect to the proposed amalgamation. That this amalgamation might take place would be very possible, were it not for the existence of one element unhappily, at the present time, most antagonistic to the prosperity of the Medical department. It would be futile to enter into the particulars of its complex nature, as only those of your readers who live here can properly appreciate and understand the Medical politics of the town, and the intricate nature of the machinery by which Queen's College is kept upon its legs. We deplore the necessity to speak in any way disparagingly of the future prospects of the Medical department of this old institution; but we feel it our duty to express the conviction of a large section of the Birmingham public in regard to this momentous question. The very fact that the appeal to the public, which was drawn out with such exquisite care, and so elaborate in its details, has been practically a failure, has only shown that the confidence of the public has not been strengthened even by the new Act of Parliament; and what has transpired since in the conduct of the College affairs has tended to reduce that distrust to a minimum. Englishmen proverbially love "things above board," and are apt to take umbrage at all under-currents. What, then, will our readers think when matters in connexion with the College, especially those relating to the filling up of the Professorial chairs, have been managed as follows?—The existence of the old and well-tried Professors, many of whom have been in office for several years, has been completely ignored—in fact, while they have been excluded from taking any steps to secure their re-election, certain unofficial, not to say obscure, individuals in this town have been actually invited—solicited, perhaps, would be the more accurate expression—"by the powers that be" to send in applications and testimonials. Comment upon such a course of procedure is needless. So much, then, for cliquism and the *esprit de corps* of the Profession here! What can be done in the way of *right* will be undoubtedly by the noble President at the head of affairs; but as he lives some distance from the theatre of action, many really important matters must escape his attention, which his unerring eye and impartial rectitude of conduct would otherwise speedily detect, and disencumber from their obnoxious features. In my next communication I hope to be able to record an improved and more elevated *modus operandi* of legislation in the affairs of this unhappy institution.

Dr. Fletcher has been able to carry out his scheme for the establishment of an asylum for idiots. The nucleus of it is a small one at Knowle, which has been favoured with his patronage some time, and the operations of which have been carried out most successfully. He himself will supervise its Medical affairs, and there has been formed a most influential committee of management. Your correspondent has had an invitation from the Doctor to visit the establishment, of which he intends to avail himself at an early date for the especial benefit of your readers.

Carbolic acid is on its trial at the Queen's Hospital; its merits as a remedial agent are, however, still in abeyance.

Our attention has been drawn by Mr. Anderson, Professor of Chemistry at Queen's College, to the physiological action of vanadium, of which metal he discovered a very large quantity some time since in a mineral from the north of England. Some very curious and highly interesting results

may shortly be looked for on this subject. The properties of the metal have undergone a thorough investigation at his hands. We understand that none of the metallic class of elements are possessed of more remarkable properties than this hitherto extraordinarily rare one, all of which will shortly form the subject of an elaborate communication to one of our leading learned societies.

GENERAL CORRESPONDENCE.

THE SANITARY STATE OF CROYDON.

LETTER FROM DR. ALFRED CARPENTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—As a member of the Croydon Local Board of Health, I request permission to reply to some of the strictures contained in your leading article of last Saturday. For many years we have carried on a sturdy warfare against the causes of disease and death. The Croydon Local Board have been in a great measure the pioneers of sanitary science, and now for twenty years have striven manfully to do their duty. For nearly the first half of that period the local opposition was of such a character as led to many a weary fight of sanitarians against the supporters of fifth—of the promoters of pure water supply against the supporters of private shallow wells dug in a gravelly soil in close proximity to the cesspool. We have cleared all those away; we have an abundant and all but constant supply of pure water; we have no cesspools; we have no great local nuisances, such as did exist; and we have lived down all local opposition to the sanitary proceedings of the board; the only objections now come from those who object to pay rates. It is, therefore, somewhat discouraging to find those to whom we look for support, those to whom we look for wishing us God-speed, instead of doing so, making ungracious attacks upon us, and calling our work a misuse of sanitary operations, without being able to point out a single instance of misuse or misapplication. We have had, Sir, to solve for ourselves the best form of sewers; our first advisers laid them too small. We have had to discover that sewers required ventilation; our first advisers gave us no information upon that subject, they did not even point out any necessity for it. We have had to discover what to do with our sewage, and have been the first among local boards to show that by irrigation, and by irrigation alone, we could avoid the enormous expenses the law entailed upon us from the fouling of water-courses, which our first advisers taught us to be the best way of disposing of sewage. For seven years we have not spent anything in law, though previous to that time our law bills, in consequence of our outfall, were something serious every year. Those questions the Medical press did not, and could not, help us to solve. For years we had to fight for our water-supply, until the House of Lords decided that we had right on our side, and settled a point of great importance to other boards. These sanitary questions we have fought out and solved, not finally, it is true, because better means may be yet discovered; still, our local board has been the means of showing to other boards what can be done, and what mistakes may be avoided. It becomes disheartening, therefore, to find no meed of praise, but constantly anonymous and one-sided attacks against us in Medical journals. I have repeatedly explained in various ways how our statistics are made up, but the same spirit seems ever present to cast discredit upon statements which are nevertheless true. You ask—can it be seriously argued that the population of Croydon has increased at such an enormous rate as the table would imply? I answer emphatically, *yes*. The builders are aware of our excellent sanitary state, and houses are built at an enormous rate. During the year just ended 978 new houses were approved for building, and 658 actually newly inhabited. The returns are obtained from the poor-rate collector each quarter, who is not an officer of the board, and the numbers of deaths and the diseases which are fatal are supplied by the registrar, who, again, is not an officer of the board. The published tables refer to the parish of Croydon, co-extensive with the operations of the local board; your table refers to the registration district, which includes the population of some nine other parishes, and your estimated population in 1867 falls short by very many thousands of the actual number of people living in the district. The number of houses inhabited is known; for the rate collector returns those occupied only—those which pay rates. The empties are deducted; then the average number of persons living in each house, as shown by former censuses, is easily made out. The result is that, for the year just ended, our mortality is 16·60, and our fever rate on gross mortality is reduced from 6·47 per cent. in 1848 to 1·54 in 1867. Dr. Westall, a non-resident, is the compiler of the tables, and his probity has been too well proved, by the earnestness with which he has fought for sanitary measures, to doubt that he would do his work faithfully and truly. But, Sir, the tables contain internal evidence of truth and internal evidence of our triumphant success. Thus, at the time when the board was first established, the deaths of children under two years of age averaged 22·3 per cent. of gross mortality; it has now risen to 30·6 for the past year, the birth rate having risen from 26·9 in 1848 to nearly 35·0 in 1867. Again, we find that the deaths of persons above 60 years of age in 1848 were 16·5 per cent. of gross mortality, whilst in the year just ended they have been 31·4. If we now examine the intermediate stages—the stages of full vigour—we find, instead of 61 per cent., as it was in 1848, it is 38 per cent. only for the year just ended. We have every wish to still further eliminate the causes of disease. We are daily and strenuously fighting against them through good report and through evil report, but it would be absurd on our part to entertain a new project as yet untried, whilst our own is answering so well; and we trust, Sir, that you will continue to give us credit for what has really been done, and not allow false figures and innuendoes, without real charges, to make us weary and faint in our work.

In additional support of my proposition as to our sanitary success, I enclose for your perusal and examination the table presented this evening to our local board of the number and causes of death during the week just ended. It is the actual official return, with the signature of the Registrar. There is not a single death registered from the ordinary so-called preventible diseases. Taking our population at 50,000 (it is nearer 53,000), the table gives a death-rate of 18·6; that of London for the corresponding week is 27. The births, you will observe, are just double the number of deaths—a conclusive proof that our population is not overstated.

I am, &c. ALFRED CARPENTER, M.D.

Croydon, January 21.

*** Fair criticism and full publicity, combined with sympathy for all who are carrying on a great sanitary work, are the sentiments that animate us. The whole matter in debate hinges on an *estimate* of population. That which we have given is based on the theory of an equal rate to that between 1851 and 1861. If this is inapplicable to the case of Croydon, give us the *data* for a better one! Give us the absolute facts, the deaths and their causes *year by year*, side by side with the estimate of population, and the data for the latter. There is nothing in all this in which *Medical* science or Medical men are impeachable; if any one, it is the engineering staff.—ED.

THE USE OF COLLODION IN ERYSIPELAS, AND OF THE ETHER SPRAY IN TETANUS.

LETTER FROM DR. ALEXANDER PATERSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Thinking the following remarks may not be devoid of interest for some of your readers, I have been induced to send them to you, and request the favour of their publication. Having enjoyed the privilege of visiting the ward of Mr. Barbosa, a distinguished Surgeon, in the Hospital of St. Joseph, at Lisbon, I saw there several cases convalescent from erysipelas in which collodion had been applied to the affected part, in every instance with the effect of arresting the spread of the disease, which stopped abruptly, with an even and distinct margin, at the point where the collodion had been applied. I was struck with this result, and asked Mr. Barbosa about this treatment, who told me that he now always had recourse to it in erysipelas, and that, though he had used it even in cases of severe phlegmonous erysipelas, he had never known the disease pass the barrier of collodion in a single instance. Mr. Barbosa applies the collodion so as to form a band of about four fingers' breadth, one half being over the affected part, and the other over the healthy skin, and renews the application daily. I am perfectly aware that in this treatment there is nothing new, and many may perhaps be able to adduce numerous instances of its signal failure; still I have thought this instance of its success not unworthy of record.

In the same ward of Mr. Barbosa, I saw also a case of tetanus supervening on a severe injury to the hand in a young man who had been brought into the Hospital some days after the occurrence of the injury, and when the symptoms of tetanus were already manifesting themselves. I naturally inquired about the mode of treating tetanus there, and was informed that they had applied in a former case the ether spray, by means of Dr. Richardson's instrument, to the injured part with perfect success. It was also tried in this case, but unfortunately, after one or two applications, the instrument got out of order; and as there was not another to be had, they could not continue the treatment. The patients do not, I am told, complain of much pain during the application. Since this method has been followed by success in one instance, and seems to my mind a rational procedure, I have thought it worth mentioning, as some of your readers may have the opportunity of testing its value as a curative means in that awful disease. This mode of treatment was, I believe, first proposed by Mr. J. J. da Silva Amado, one of the Surgeons to the Hospital of St. Joseph. He applies the spray three times daily for ten minutes at a time. Apologising for trespassing on your space so largely, I am, &c.

ALEXANDER PATTERSON, M.B., etc.

Oporto, December 19, 1867.

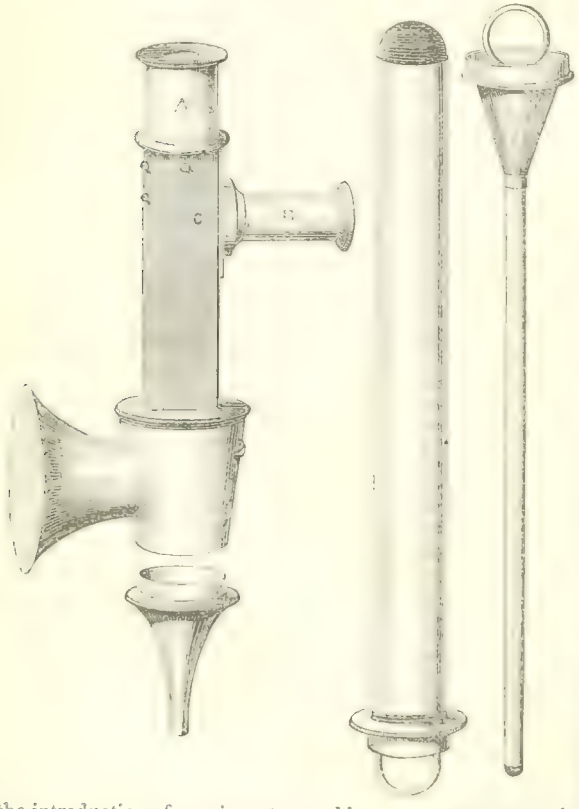
A NEW INSTRUMENT FOR DEMONSTRATING THE MEMBRANA TYMPANI, OR OTHER DEEPLY SITUATED ORGANS.

LETTER FROM MR. JAMES HINTON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I wish to lay before your readers a short description of two small instruments. The first was designed for the purpose of demonstrating the membrana tympani. I had long felt the difficulty of exhibiting that structure satisfactorily to a third person, inasmuch as, in any of the ordinary methods, it was necessary to remove my own eye from it before it could be brought within another person's vision, and without the aid of sight it is very difficult to maintain the speculum in its exact position. The instrument depicted below (Fig. 1), by

FIG. 1.



the introduction of a prism at c, enables two persons to see it perfectly at once, the eye being placed at A and at B. In other respects, it is essentially the same instrument that has been long in use in the hands of my friend Dr. Anderson, of Glasgow. The light is admitted at D. The refracted rays, of course, give a lateral inversion of the object, making the right hand appear the left; but this is of no practical importance. The instrument has been found equally available for the demonstration of other internal organs—the rectum, urethra, etc.—and constitutes, I believe, an exceedingly efficient and convenient "endoscope." The rectal and urethral tubes are also represented in the cut.

FIG. 2.

The second figure represents a forceps of a new construction by which great lightness and tenuity are combined with considerable strength and firmness of grasp. It is especially suitable for cases in which, as in the auditory meatus, it is desirable to impede vision as little as possible. Both instruments are made at a very moderate expense by Messrs. Mayer and Meltzer, of Great Portland-street. I am, &c.

December 12. JAMES HINTON.

THE ARMY AS COMPARED WITH CIVIL LIFE FOR MEDICAL MEN.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have just perused a leading article in your number of January 4, on "the Army as compared with civil life for Medical men;" and while I agree with you on some of the relative advantages of a military over a civil career to those who have no other opening, yet, as an officer of long standing and experience, well acquainted with the military aspect of the case, I must record my dissent from your views of the position of the army Medical officer being satisfactory.

A great deal has been said and written on this subject, and much has been done to improve the pecuniary condition of the junior Medical officers, and when young that is what most men look to—this is the bait to hook the gudgeon. We have, however, little to be grateful for in any other respect. Everything has been conceded in the worst possible spirit, with great and most illiberal opposition; and not even then, until public opinion and the paucity of candidates extorted a few trifling concessions. We cannot possibly feel grateful for so little, thus obtained, when so much has been left undone to keep up the chronic discontent, which has by no means subsided, and is not likely to be decreased by the order recently published incapacitating the Medical officer from sitting on mixed boards, and entirely ignoring his social position at mess or on public occasions. You write and reason like a civilian unacquainted with military life. We maintain Medical officers in the army should be recognised in a double capacity, which, without sinking their professional position, could easily be accomplished as in the Engineers and Artillery, the other scientific non-purchase branches of the service. We only ask to be treated like [illegible] officers, and not as "class apart" [illegible]. It is sheer nonsense talking about non-combatants, or placing Medical officers in the field in the same category as commissaries, purveyors, or military store officers (those writing thus have never been in the field), although I have not a word to say against this valuable body of [illegible] officers, who are all indispensable links in a chain; but we do

protest against the position assigned to us as meant to lower us in the estimation of the army and civilians, and deprive us of that social rank and position which is thought so much of in the army and navy of all nations.

The Royal Warrant of 1848, so clearly compiled by the late Lord Herbert, of Lea, one of the ablest and most enlightened statesmen who ever lived, having been so illegally and unjustifiably tampered with (and to this day not acted up to), has been the chief cause of discontent.

The Russians—an aristocratic and great military nation—accord military rank and privileges to all officers alike. The Americans—the most democratic and advancing of civilised countries—have also conceded military rank to the Medical officers, without which they never could have filled the department with the scientific body of officers the recent war produced. Even the Prussians have found it necessary to give Medical officers military rank and authority over those in their own department. In ours it is a sham.

We do not contend for absolute military rank, or command of men on parade—this is a pure fiction of our enemies—but we ask simply that the Royal Warrant of 1848 should be honestly carried out in a proper and liberal spirit, and there will be an end to discontent in the army so far as the Horse Guards are concerned; but there is a great deal more to be done yet before the Department can be satisfied and contented.

The subject is too long a one to enter into in the limits of a single letter; and, if you will permit me, I will return to it in another communication. But, before doing so, I must correct you on one point—viz., the liberality of the Horse Guards as to military honours. It is true that "Victoria Crosses" have been earned and bestowed, in common with the private soldiers. Companionships of the Bath have also been bestowed, not always judiciously, nor in excess of the number of and importance of the largest department in the army. But when you come to the higher honours, where are they? Not a single officer of the Department, not even the head of it, is a K.C.B., and one or two veterans on half-pay represent the whole number of the Department thus honoured. It is not that there are none deserving, or who have been strongly recommended for distinguished service. The reluctance to bestow them at all on Doctors, and want of interest on their part, is the chief reason they are doled out in so niggardly a manner to Medical officers in the public service in comparison with other branches.

Those who serve her Majesty privately and in other capacities are differently treated. Look at the recipients of the "Star of India." Is there a single Medical officer thus honoured? Why not?—because they are Doctors. The honours of the State are open to any extent to other professions. On what grounds are the destroyers of life more highly honoured than the preservers? I am, &c.

ONE WHO HAS SERVED THIRTY YEARS.

Junior United Service Club, Jan. 10.

CONDY *VERSUS* PESTILENCE.

LETTER FROM MR. H. B. CONDY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I see it announced that the lying-in wards of King's College Hospital have been closed on account of the enormous mortality occasioned by epidemic puerperal fever, and have observed that this most fatal infectious disease has been also very prevalent in other institutions of the kind. This state of things is, in my opinion, a serious blot on that branch of sanitary science which relates to disinfection. If we bear in mind that, in the spread of puerperal fever, whether from one lying-in woman to another, or from patients affected with other infectious diseases, such as erysipelas, to puerperal subjects, there is always a local point of invasion, while in the former set of cases there is also a local point of evasion of the poison, it must be obvious that few diseases present more favourable conditions for the arrest of infection. It would, therefore, seem to me that, if it be really necessary to close lying-in wards on account of the prevalence in them of epidemic puerperal fever, one of two things must be the case—namely, either (1) thorough measures of disinfection have not been employed; or (2) we are not yet in possession of any real practical disinfectant. But my confidence, founded on long experience, in the efficacy of disinfection when thoroughly enforced, is so great that I cannot but think that, in those Hospitals in which great mortality has arisen from puerperal fever, disinfecting measures have not been properly applied.

Feeling satisfied that the power of thorough measures of disinfection to prevent the spread of puerperal fever is capable of being demonstrated in institutions where those measures can be faithfully carried out, I hereby declare myself willing to undertake the proof of this statement in any lying-in ward suffering from puerperal infection, provided the temporary sanitary management of such ward be placed under my direction. I am, &c. H. B. CONDY.

Battersea, January 20.

PRACTICE IN THE SPANISH WEST INDIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Now for a few hints on the treatment of the diseases which most commonly present themselves in the Spanish West Indies. I beg first to inform our Medical aspirant to Spanish honours that he is not permitted by the Spanish law to dispense his own medicines. This law is very peremptory, and expressly ordains that, for the better protection and safety of the public, no Medical man who, by his calling and position, may have easy access to the houses of families, with whose secret histories he may become acquainted, and in which he may himself be personally interested, should have in his hands the power of life and death; that the chemist must be regarded as the protecting medium between the Medical attendant and the public; that in case the latter should, either wilfully or from neglect, prescribe in excessive or improper doses, it would be the duty of the former to communicate with him; that, should the chemist dispense a medicine improperly prescribed, he is liable for the consequences and amenable to the law. And thus the public is protected against the improper administration of dangerous medicines. Such a law is evidently well suited to the genius of a people naturally jealous.

Our friend had better not give a preference to any apothecary, or he may expect a hornets's nest about his ears. Indeed, they are all equally well qualified, as none can dispense medicines without a licence acquired by a course of study and a proper examination.

I hope he may be agreeably surprised to find his consulting-room crowded with the "lame and the blind." I would recommend him to draw himself to the height of his Professional gravity, and betray no confusion, however he may feel it, on this his first introduction to Spanish practice.

I will say a few words first upon intermittent fever. We at home are too apt to associate our ideas of intermittent with marshy lands and the decomposition of vegetable matter. But the worst forms of fever are produced by the miasma of dry sandy, porous, and half clayey soils, where there is no trace of vegetation—soils that, after having been flooded and saturated, are suddenly dried up by heat, and the more intense the heat, the more concentrated the poison. The experience of some of our most eminent army Surgeons has completely decided the question, both in the East and West Indies, whether malaria can be evolved independent of vegetable decomposition; indeed, some go so far as to assert that the products of the latter and malaria are of a distinct nature, and, although sometimes conjoined, are entirely independent of each other. In the tropics the same malarious poison will produce different effects, according to its distance from the earth's surface; when concentrated below, it will produce fever of a dangerous *continued* type; higher up, the fever will assume the remittent, and still higher up the intermittent type.

Very lately an American Surgeon of great experience, who had served in the Mexican war, described to me the gradual effects of the malarious poison from its concentrated state in Vera Cruz to its more diluted state in the remote districts, till at length all traces of malaria had faded away, and where the air became rarefied from its elevation, as in Mexico, there heart and lung diseases prevailed.

Should our friend be called out at unseasonable hours professionally to visit in malarious districts, I should recommend that he cover his face with a thin gauze or kerchief, and that he take some strong coffee, with a grain of quinine in each cup. By the way, this is a capital way to disguise quinine; I believe coffee to be superior for the purpose to wine or brandy, the effect of which soon evaporates, and their repetition weakens the nervous system, and disposes to the influence of the malaria.

As to the nature of these miasmata, we know them only by their effects; yet I have known some old Spaniards who told me that they could always tell by their feelings and the sense

of smell when they approached a malarious district. It may be fancy, but I have frequently experienced an odour like that of diluted chloroform, which also affected the sense of taste, when compelled to travel through such districts, especially in the night time, together with a certain depression of spirits, and sense of constriction about the forehead. The impression made upon me by the observations of some old natives, and the stillness of the night, when the imagination is apt to run wild, may have a great deal to do with it, but I certainly have experienced the sensation already described on more than one occasion.

Intermittents generated from dry porous soils are ushered in and accompanied with more violent head and liver complications than those from marshy soils. I remember an instance in such a district of seven out of eleven men who, after having passed the greater part of the night in a house of entertainment, soon after having returned to their homes were seized with precisely the same symptoms—bilious vomiting and violent head and liver affections. In the case of these men the nervous system had been debilitated by previous excesses and exposure to night air. The fevers of these districts are more prone to assume the quartan type, with its long cold stage and dangerous visceral complications. Does any difference exist between the miasma emanating from marshy and from dry sandy soils? Have different miasmatic poisons more affinity for some tissues than for others?

Next as to treatment, based upon the practice of the Spanish Physicians and the results of my own experience. Rare are the fevers in the Spanish West Indies that do not owe their origin to malaria, and such as proceed from any other source are not indigenous, but mostly conveyed from vessels in their harbours. Therefore all these fevers, under whatever name they may be classified—inflammatory, congestive, remittent or intermittent—originating as they do from a common cause, must be treated by the one only effectual remedy, quinine, which is to be regarded as a decided antidote. There are many forms of malarious disease in which no remission can be observed, and nevertheless quinine is our only hope.

This fact, that a great variety of malarious diseases and their sequelæ proceed from a common cause, greatly simplifies the pathology and the treatment; but if quinine becomes our sheet-anchor, its use requires great tact and discrimination. Now, the mode of administering quinine which I have found most successful is when combined with diuretics. This plan has been long known and practised by the Spanish Physicians. Dr. Stevens, who practised some thirty years ago in Santa Cruz, has also strongly recommended it.

On looking, a few days back, over Dr. Barlow's "Practice of Medicine" for the first time, respecting which I had heard, and deservedly, a most favourable opinion, I was surprised to find, at page 609, the "plan of giving the diuretic after the antidote quinine" described as "an ingenious novel suggestion that had lately been put forward." Yet it has been long understood and practised in the Spanish West Indies. In ordinary cases, I have found two or three grains of quinine mixed with a little carbonate and bicarbonate of soda, with a little spirit of nitric ether and compound tincture of camphor, produce a better effect than six or eight grains separately. It thus acts gently, clears the urine, and produces none of the irritating effects resulting from large doses of quinine, which should be thus administered only in extreme and dangerous cases.

I remember, some twenty years ago, the late venerable Dr. Darling, of Russell-square, recommending me to suspend mechanically in water, quinine with carbonate of soda, when the acid disagreed with the patient. He also observed that it thus acted upon the kidneys. Now, if more effectual diuretics be added to the quinine, the practice is precisely such as obtains amongst the Spanish Physicians.

In the third or sweating stage of intermittent, large quantities of urine are voided, to the great relief of the patient. Now, by the administration of a diuretic with quinine we act on the kidneys, give a ready outlet to the poison of intermittent—giving at the same time the antidote, and thus we imitate nature. The Spanish nurses appear to be aware of this fact, for, in order to facilitate the action of the kidneys, they give demulcent and diuretic drinks, generally consisting of a decoction of barley, marsh-mallows, and parsley. Before administering quinine, of course it will be necessary to give a purgative (pulvis jalapæ co. with calomel), should the bowels be loaded and the liver secretions be disordered. The American Physicians give quinine in every stage of intermittent, and although I prefer giving it in the third or sweating stage, still I consider that the American practice is correct.

Malarious fever is a congestive, not an inflammatory fever. In the severely dangerous and urgent cases which occasionally present themselves, the head symptoms, with coma, delirium, pain, convulsion, are the consequences of such congestion, and must not interfere with our immediate use of quinine. The more urgent and alarming the case, the larger the dose required—from ten to twenty grains every two or three hours, or oftener if necessary. Should quinine produce its well-known effects, we must suspend its use, or give it in smaller quantities.

Should vomiting interfere with its administration, I have given it in form of pill, to which calomel or blue pill has been added, with mustard poultices to pit of stomach; but in every case, severe or otherwise, I have given the diuretic. It ought to be employed in large doses in cases where life is threatened, although violent head symptoms, with delirium, and even convulsions, with strong pulse, should exist, and even although the other extreme state should offer itself—oppressed pulse, with cold clammy skin and tremulous tongue, from the violence of the malarious poison.

Such cases are rare, but we ought to be prepared for them; and, as a general rule, three or four grains of quinine added to the diuretic every three or four hours I have found the most satisfactory practice. So soon as the urine from being turbid and muddy becomes clear and abundant, the symptoms wonderfully improve.

That form of malarious disease called pernicious fever is one of the most fatal that can be well conceived. The poison seems to overpower the senses at once. Paroxysm succeeds paroxysm with short intervals; cerebral congestion produces coma; the function of respiration becomes more and more impeded; and death usually takes place within twenty-four hours. The worst cases that I have witnessed on a large scale of this terrible malady occurred amongst the Spanish soldiers who had been conveyed to the Spanish Hospitals after the fatal campaign in San Domingo. The mortality reached 80 per cent. I would dry-cup the nape of the neck, and even scarify slightly and blister. I would give a mixture composed of quinine in large doses, with chlorate of potash and muriate of soda, in camphor mixture; apply sinapisms to the calves of the legs; administer quinine by injections, by frictions along the spine and under the armpits—say one drachm in half a pint of brandy or eau de Cologne. Should an improvement take place, give small doses of quinine combined with diuretic.

Arsenic I have not found of much use in the tropics. When given alone, it appears to act infinitely better in cutaneous diseases than in intermittents. I have sometimes prescribed it with liq. potassæ in an infusion of Angustura bark; also in the form of liq. arsenicalis added to the quinine and soda mixture, with excellent effect in some obstinate cases.

I regret I have neither practised nor witnessed the operation of the subcutaneous injection of quinine, respecting the good effects of which I have heard some wonderful accounts. Should they prove correct, it would be an invaluable boon for the poor in the Spanish West Indies, where the ounce of quinine often costs six or seven dollars. I would advise our young friend to introduce there the system of subcutaneous injection.

I left our Medical friend in his consulting-room surrounded by a dozen or more cases. We will together examine a few of the most important in my next letter, which will include some of the most usual sequelæ of intermittent fevers in the Spanish West Indies. I am, &c. Medicus.

Prolonged Detention of a Live Insect in the Ear.—M. Guérin related at the Société de Chirurgie the case of a soldier who had been in Mexico, and who was admitted at the Hospital of Vannes with various affections, and amongst others a facial neuralgia. Much attention was not paid to this last affection until one morning the patient produced an insect which he said had just quitted his ear after a sojourn of seven months. While in Mexico he was in the habit of lying on the bare earth in deserted barns, and it must have been there where the insect entered the ear. When he arrived at Brest, the pain in the organ being great, his ear was examined, but nothing was discovered. After the insect had quitted the ear, all pain left him. The insect was alive, and was pronounced to be an arachnida, the *Ixodes* [illegible] of Koch.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 14, 1868.

MR. SAMUEL SOLLY, F.R.S., President, in the Chair.

A PAPER, by Mr. T. SMITH, was read,

ON THE CURE OF CLEFT PALATE BY OPERATION IN CHILDREN, WITH A DESCRIPTION OF AN INSTRUMENT FOR FACILITATING THE OPERATION.

The author's object in presenting this paper is to communicate to the Society a plan of operating on clefts of the palate, applicable to all who suffer from the deformity, but especially to children, to those deficient in physical courage and in the power of enduring pain. No attempt is made to improve on the principles of staphyloraphy as laid down by Sir William Fergusson, though slight and inconsiderable modifications in that gentleman's practice are advocated, as more suited to the tender age of the patients for whom the plan in question is specially designed. The chief novelty in this proceeding is that chloroform can be employed. A painless and speedy operation can therefore be performed, and that with more precision and greater prospect of success than when the operator is dependent upon the self-control of the patient; while, from the painless nature of the operation, the cure of cleft palate can be effected in children, to whom formerly the benefits of staphyloraphy were virtually denied. The author discusses the probable advantages of the performance of the operation in early life, though he waits for a larger experience to fix the particular age at which it is best to attempt to cure the deformity. The plan of operating recommended depends chiefly for its success on the employment of a gag, whereby the tongue is depressed, the jaws can be opened and fixed, and the orifice of the mouth enlarged. This is adjusted when the patient is under chloroform. The modifications of the ordinary operation as suited to the insensibility of the patient are described. They consist chiefly in avoiding any considerable flow of blood until the very last step in the operation has been accomplished. The author recommends for children the employment of fine fishing gut and horsehair as the best materials for suture, and describes certain modifications in the ordinary shape of the needles employed and the manner of passing the sutures, which simplify and expedite the operation. The conclusions in the paper were supported by cases. In conclusion, the author stated that he trusted by the lapse of time and further experience to be able to determine the age at which an operation should be done, and the effect of an early operation on articulation and vocal resonance. Appended to the paper were the accounts of eleven cases where the operation for cleft palate had been performed in the manner recommended by the author—that is, with the aid of a gag, and under chloroform. In eight of these cases the operation was successful; three were failures. No operation had been attempted on the hard palate, though in nine of the cases the deformity involved the bony palate to a greater or less degree. The author expressed a belief that it would in many instances be unnecessary to perform any operation on the bony palate if the cure of the soft parts were effected in early life. In support of this belief he adduced three cases of operation where the soft palate only had been united, and where the hole remaining in the roof of the mouth had gradually contracted to very small dimensions. Sufficient time had not elapsed since the operation in the author's cases to allow him to speak authoritatively on this subject. An easy method of fastening gut sutures without cutting the gut was described. Children were exhibited on whom the operation had been successfully performed, and one adult was also present, whose palate had been united by operation under chloroform. The author recommended the use of the gag and chloroform for adults as well as children in the performance of this operation. Though the effects of the operation in children on the powers of articulation had been at present highly satisfactory, the author abstained from making any definite statement on this subject, waiting rather for the lapse of time and additional experience to furnish fuller information.

The PRESIDENT complimented Mr. Smith on the excellence of his paper. He remarked that Mr. Smith spoke of vomiting; he would ask if it were necessary to remove the gag to allow the child to get rid of the vomited matters.

Mr. SMITH explained that it was only necessary to do so that the mouth might be cleaned out.

Mr. DURHAM said that, although he had been at work on the subject for some time, Mr. Smith had completely taken the wind out of his sails. It was still questionable what was the exact period at which the operation could be earliest performed with a hope of success. No doubt, however, childhood was the great time. In fact, the improvements made in the manufacture of artificial palates rendered the operation in advanced life unadvisable, for it was only in children that much improvement in speech and swallowing was observed. The operation should be performed on patients when below 15 years of age, and under the influence of chloroform, although this latter somewhat retarded the operation. As a ligature, he thought gut good, but the horsehairs had a tendency to unfold themselves. To facilitate their introduction he employed a needle-holder (which he showed), and found it a useful adjunct. Hitherto he had not used Mr. Smith's gag for any operation on the palate, but had found it most useful in dealing with the tonsils.

Mr. T. HOLMES stated that he had only once had an opportunity of operating in this way; that was in a boy of 13. He had proceeded much in the same way as Mr. Smith. He considered the gut likely to be an improvement. To facilitate the operation, it was necessary to give a good deal of chloroform, so that the patient should be completely under its influence. The vomiting after the operation was often obstinate, and constituted one of the serious drawbacks on its success. In future he considered that chloroform would probably be used, as there was no danger with it, the bleeding not being troublesome. He did not attempt to deal with the hard palate.

Mr. STARTIN remarked that silk, if covered with elastic collodion or gutta-percha, was quite as good as anything for ligatures.

Mr. PRESCOTT HEWETT said that in removing the upper jaw, under chloroform, there was in one of his cases, the operation being protracted, much hæmorrhage. The patient suddenly died, and it was found that the whole of the air tubes were completely filled with blood. There were many cases now, however, which showed that the risk from hæmorrhage was not great as a rule.

Mr. CURLING said the hæmorrhage was usually slight, and the blood generally passed into the stomach.

Mr. CLOVER said he had often given chloroform in dental cases where there was considerable hæmorrhage, and the blood always appeared to go down the throat into the stomach. The quantity and rapidity with which it was shed was, he believed, of importance. Under such circumstances he would use a nose-cap for the administration of chloroform. As a material for sutures, he would recommend a structure like the street telegraph—gutta-percha, with a copper core. For this he would recommend a kind of needle, which he showed.

Mr. SAVORY remarked on the great advance in practice this paper indicated. In Sir W. Fergusson's operation, the subsequent deficiency of articulation was disappointing. He had several cases, but had never seen complete recovery of speech; hence some think an artificial palate preferable. The question was—Would we get a better result now operating so much earlier in life? It should be remembered that the opening was more than a mere fissure. A good deal of muscular tissue, especially of the levator palati, was absent, and the most we could do was to substitute a cicatrix for this deficiency. The hard palate, he said, might be left to itself if the soft was closed. This he had seen again and again. When the opening left was small, it was no impediment. The use of chloroform would depend on Surgical opinion as to the best mode of dividing the muscles, whether it should be done from before or from behind.

In reply, Mr. SMITH said that the operation could be more readily performed with than without chloroform. For ligatures, nothing stiff could be used, as they irritated the tongue, and the child pulled them out. Horsehair he thought better than gut, as it did not soften. Vomiting was fatal to the success of the operation, and it occurred independently of chloroform. Mr. Savory's remarks were peculiarly true. The worst specimen of articulation he had ever heard was in one whose palate was entire. In one or two of his cases perfect speech was secured.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 1, 1868.

Dr. HALL DAVIS, President.

ANNUAL MEETING.

THE following gentlemen were elected Fellows:—Dr. Andrew Brown, London; Dr. Butler, Woolwich; Dr. James, Forest-hill; Dr. March, Rochdale; Mr. Marriott, Leamington; and Dr. Wilton, Sutton.

Dr. TREND read a paper on "Funis Presentations." The details of twelve cases were fully given, and the treatment adopted in each case was specified.

Mr. BAILEY, of Thetford, read a paper on "A Case of Transposition of the greater part of the Abdominal Viscera into the Left Cavity of the Thorax."

Dr. THOMPSON, of Nottingham, read a paper on "A Case of Congenital Umbilical Hernia."

The business of the annual meeting then commenced.

The report of the auditors for the year ending December 31, 1867, was read, from which it appeared that the balance in the hands of the Treasurer was £180 11s. 10d., and that during the year a sum of £100 had been invested in the funds in the names of the trustees of the Society. The balance-sheet, read by the Secretary, showed that the Society had received during the year £553 7s. by subscriptions from the Fellows, and £81 14s. 6d. by the sale of the volume of *Transactions*.

Dr. WESTMACOTT, after congratulating the Society on the highly satisfactory condition of its funds, moved the adoption of the auditors' report.

Dr. ROUTH seconded the resolution, and it was carried unanimously.

The report of the Hon. Librarian for the year 1867 was read. It contained a statement of the number of volumes possessed by the Society, of the additions received by presentation during the past year, and described the arrangements made for the comfort and convenience of the Fellows at the rooms recently taken for the library at 291, Regent-street.

Dr. EDIS then moved the adoption of the alterations in the by-laws suggested by the Council.

Dr. RAYNER BATTEN, of Gloucester, seconded the proposition, and, after some discussion, it was carried by a large majority.

A vote of thanks—proposed by Dr. EDIS, and seconded by Dr. TAYLOR—was then given to the President and honorary officers of the Society for their services during the past year, and was acknowledged by the President.

The following gentlemen were elected officers for the year 1868:—Hon. President: Sir Charles Locock, Bart., M.D. President: Dr. J. Hall Davis. Vice-Presidents: Dr. A. Hall (Brighton), Dr. Grailly Hewitt, Dr. Braxton Hicks, Dr. Priestley, Mr. Spencer Wells, and Dr. Whitehead (Manchester). Treasurer: Dr. Meadows. Honorary Secretaries: Dr. G. C. P. Murray and Dr. Gervis. Honorary Librarian: Dr. Playfair. Honorary Members of Council: Dr. Tyler Smith, Dr. Oldham, and Dr. Barnes. Other Members of Council: Mr. J. M. Burton, Mr. John Clay (Birmingham), Dr. Cory, Dr. Cumberbatch, Dr. Eastlake, Mr. Robert Ellis, Dr. Greenhalgh, Mr. Seymour Haden, Mr. Holman (Reigate), Dr. Leishman (Glasgow), Mr. Napper (Cranley), Mr. Nunn, Mr. Oldham (Brighton), Dr. Pollock, Dr. Roberts (Manchester), Mr. Scott, Mr. Squire, and Dr. Tilt.

The PRESIDENT then delivered the

ANNUAL ADDRESS.

He commenced by congratulating the Fellows upon the continued and still increasing prosperity of the Society, upon the great interest felt in its meetings, and upon the high esteem in which its published *Transactions* were held. He then referred to the objects contemplated in the establishment of an Obstetrical Society. One should be, to employ its best efforts to enlarge the opportunities for education in that department, for the benefit of those who are training in our Medical schools for the practice of their Profession. Much had been done of late years by our Hospital schools, and by the examining boards, to improve Medical education in its relation to obstetrics, but not to such a proportion of it as was given to the clinical study of obstetric practice. It was true that for some few years the College of Surgeons had instituted a diploma in midwifery and its allied subjects for voluntary candidates; but since only comparatively few volunteers for that distinction offered themselves, the desired object of encouraging a diligent study of obstetric science and practice was very inadequately fulfilled. The required remedy was to arrange the student's time, uninterfered with by other clinical work, so as to enable him duly to qualify himself by such clinical opportunities as Hospitals should afford for those responsible duties which he would have to undertake when he entered upon the practice of his Profession. It would be desirable, further, that all candidates for the diploma of the College of Surgeons should be examined as to their practical knowledge of obstetrics in the same way as were candidates for the Medical degrees of the University of London and for the licence of the College of Physicians. It might, moreover, be permitted to any candidates wishing for special distinction in the department of obstetrics, to submit themselves to a higher examination for honours. There were also other objects in which the Society might very usefully be engaged—namely, through the action of committees, to collect information from the Profession on certain important questions of obstetric interest requiring a fuller experience and elucidation. Such a one was the question of the causes of the great mortality among young infants, which had been suggested to the Society by Dr. Farr, of the Registrar-General's Department. The President then referred with gratification to certain facts as proofs of the continued prosperity of the Society. The number of Fellows at the present date, the commencement of the tenth session, amounted to 588—viz. 27 in excess of those of the year 1866, and that notwithstanding losses by death and otherwise. Of this number, 61 were elected during the past year. With respect to the funds, after paying all expenses, there was a balance in hand of £180, as against £90, the balance in 1866; while the Society possessed property invested in consols representing £1118, of which £100 was invested during the past year, as against £50 during 1866. Another gratifying circumstance was that £81 had been obtained from the sale of the *Transactions* to members of the Profession not connected with the Society, as against £51 from the same source in 1866, being, moreover, £50 in excess of the average receipts from the same source during the preceding eight years. The President then referred to the removal of the library to 291, Regent-street, and paid a tribute to the active interest displayed in the transfer, and necessary arrangements, by the Honorary Librarian, Dr. Playfair. It was intended that the weekly, monthly, and quarterly Medical periodicals, British and foreign, should be placed on the tables, and that in every possible way the comfort and convenience of the Fellows should be consulted. Ample accommodation was preparing in the same rooms for the display of the collection of obstetric instruments belonging to the Society, and for the exhibition of pathological specimens of obstetric interest. The President next adverted to the quality of the papers and other contributions from Fellows, which would appear in the annual volume, and which would bear comparison with those of any former year. Some particulars were then given with respect to the losses the Society had sustained by death. Six Fellows had died during the past year. Mr. James Reeves Traer died in Paris in April last. He was superintendent of Class 17, and obtained honourable mention for the excellence of his photographs of microscopic objects at the International Exhibition of 1862. He wrote a paper, "Sur l'Arrangement des Veines de l'Ovaire," published in the "Bulletins de la Société Anatomique." At the time of his death he had held for a short period the office of Honorary Librarian to the Society. Dr. Howell Phillips, Mr. George Robins, Mr Joseph Ward, Mr. John Loane, and Mr. Samuel Smith, of Leeds, were the other Fellows who had died during the year. Mr. Samuel Smith died in November last at the age of 77. Besides holding other appointments, he was Surgeon to the Hospital for Women and Children at Leeds, and Lecturer on Surgery and Midwifery at the Leeds School of Medicine. He was formerly on the Council of the Society, and at the time of his death was Honorary Local Secretary for Leeds. In conclusion, the President cordially thanked the Fellows for their earnest and well-directed endeavours to promote the usefulness of the Society, and the Secretaries for their indefatigable and valuable services during the year.

Mr. HOLMAN STOCKER proposed a vote of thanks to the President for his valuable address, which was seconded by Mr. MITCHELL, and carried by acclamation.

OBITUARY.

R. W. BLOXAM, ESQ., OF RYDE.

It is with deep regret that we announce the death of this eminent Practitioner, who had for the last thirty-five years held the foremost place in the Profession in the Isle of Wight. Mr. Bloxam was the son of a well-known Surgeon at Newport, and was educated at St George's Hospital; and very proud of his memory may this school be, for there never was a Practitioner in the provinces who by his Professional abilities and general conduct more worthily sustained the high character of this school than did the late Mr. Bloxam. He was the type of what a provincial Practitioner should be; he was a skilled Physician, and, as the writer can attest from personal observation, a most accomplished Surgeon both as regards his knowledge of Surgical disease and his powers as an operator. Consequently he was not only engaged in a great degree in ordinary family practice, but he was very much consulted in serious Surgical cases both by the public and by his Professional brethren. Mr. Bloxam presented the appearance of a remarkably healthy man, and although he was but 60 years of age he seemed to be very much younger, being tall, spare, and wiry, and of remarkable activity, and he had the appearance of a man who had many years before him. His death was produced by congestion of the lungs, under which he had been suffering for several weeks, and which was originally caused by an exposure to wet and cold which even his wiry frame could not withstand. His kind friend Dr. Burrows, of London, visited him on two occasions during his illness, which proved fatal on the 10th instant. We need not say that the feeling of sorrow for his premature death in the midst of so usefulness in the Isle of Wight is most keen.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 21st inst., viz.:—

Blue, William Archibald Sinclair, Strathalbyn, South Australia, of St. Bartholomew's.
Bradford, Robert Mark, Exeter, of St. Bartholomew's.
Cass, Henry, St. George's Road, Pimlico, of University College.
Chapman, Henry Thomas Hugh, Lower Seymour street, of St. George's.
Davson, Frederick Adams, M.B. Aberdeen, British Guiana, of St. George's.
De Denne, Thomas Vincent, Stotfold, Beds, of St. Thomas's.
Gill, Henry Clifford, Kentish-town, of University College.
Hall, Richard Strange, L.S.A., Leigh, near Manchester, of the Manchester School.
Jackson, Edward, Darlington, of St. George's.
Keagey, David, M.D. Victoria College, Toronto, and L.R.C.P. Lond., Dundas, Ontario, Canada, of Toronto and St. Thomas's.
Littleton, Philip Richard, Plymouth, of St. Bartholomew's.
Lloyd, John, L.S.A., Aberguwli, Carmarthen, of University College.
Lucas, Richard Clement, Compton, near Petersfield, Hants, of Guy's.
Lyne, Henry, Plymouth, of Guy's.
McKay, Hugh Munro, M.D. Victoria College, Toronto, Woodstock, Ontario, Canada, of Toronto and St. Thomas's.
McLarty, Duncan, M.D. Victoria College, Toronto, St. Thomas's, Ontario, Canada, of Toronto and St. Thomas's.
Marshall, Frederick, L.S.A., Kentish-town, of King's College.
Morris, David Edward, Carmarthen, of St. Bartholomew's.
Parr, George Charles, Cambridge street, S.W., of St. George's.
Prior, Richard Henry, L.S.A., Chichester, of King's College.
Renshaw, Bernard, Lee, Kent, of St. Bartholomew's.

Out of the twenty-four candidates examined this evening, only three failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their Hospital studies for six months.

The following gentlemen passed their examinations on the 22nd inst., viz.:—

Brett, Francis Charles, Burlington, Yorkshire, of St. George's Hospital.
Chilcote, Herbert Nicholas, Babbicombe, Devon, of the Westminster.
Dancher, James Williams, Plaistow, Essex, of the Dublin School.
Evans, John Cardiff, of St. Bartholomew's.
Evans, Owen Thomas, Bangor, North Wales, of the Dublin School.
Furnivall, Charles Henry, L.S.A., Ebury-street, Pimlico, of the Westminster.
Gosse, John, Poole, Dorset, of St. Bartholomew's.
Jones, Charles John, Anglesey, of the Dublin School.
Kenyon, John Edward, Horton Pagnell, of St. George's.
Lorimer, John Archibald, Maida hill, of St. Bartholomew's.
M'Donald, John Chisholm, L.S.A., Claverton-street, Pimlico, of the Westminster.
Marsh, John Wilford, Wickhambrook, Newmarket, of the London.
Tacon, Gude Wallace, Bungay, Suffolk, of the London.
Walker, John Robert, Clifton-gardens, Maida-hill, of St. Mary's.
Withington, James Bissell, Hereford, of the Birmingham School.

It appears that nine candidates out of the twenty-four examined failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their Hospital studies for six months.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 16, 1868:—

Baylie, William Edward, Longfleet, Poole, Dorset.
Parkinson, Edmund Wollaston, Shere, Guildford.
Somerville, Edgar Hepburne, 29, Cotebrook, Clapham.

The following gentleman also on the same day passed his First Examination:—

Ticehurst, Augustus Rowland, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Aitken, W. Scott, M.B.—One of the Surgeons to the Greenock Hospital and Infirmary.
Bastian, H. Charlton, M.D. Lond., M.R.C.P.—Assistant Physician to the National Hospital for the Paralysed.
Bellers, J. Pyman, L.F.P. & S.G., L.S.A., etc.—Medical Officer to the Hailsham Workhouse, and to the Hellingly District of the Hailsham Union, vice J. Fletcher, M.R.C.S.E., deceased.
Callinan, P. M., M.B., F.R.C.S.I.—Consulting and Visiting Physician to the District Lunatic Asylum for the County of Clare.
Elliott, E., M.D.—Medical Inspector for the Port and District of Portsmouth, under the Merchant Shipping Act of 1867.
James, M. P., M.D.—Physician to St John's Hospital for Diseases of the Skin.
Lavies, J. S., M.D.—Surgeon to the Westminster House of Correction.
Moore, R. Rutter, M.D., F.R.C.S.Ed., etc.—Medical Officer to the Gaol, Bury St. Edmunds.
Powell, B. D., M.D.—Assistant-Physician to the Hospital for Consumption, Brompton.
Taylor, S. T., M.B.—Surgeon to the Jenny Lind Infirmary for Sick Children, Norwich.

BIRTHS.

Gange.—On January 17, at Faversham, the wife of F. A. Gange, M.D., of a son.
Hooker.—On January 17, at Truro-road, Wood-green, the wife of C. E. Hooker, M.B., of a daughter.
Holmes.—On January 20, at York House, Cowes, the wife of Dr. W. Holmes, of a son.
Kingsford.—On January 24, at Upper Clapton, the wife of Dr. Kingsford, of a son.
M'Shane.—On January 15, at Haslar, the wife of Staff-Surgeon M'Shane, R.N., of a daughter.
Smith.—On January 12, at Great Hadham, Herts, the wife of F. M. Smith, M.D., of a daughter.
Southey.—On January 14, at 32, Montague place, the wife of R. Southey, M.D. Oxon, of a son.
Wilson.—On January 12, at Ashton-under-Lyne, the wife of J. G. Wilson, M.D., of a son.

MARRIAGE.

Perry—Elliott.—On January 7, at St. Jude's Church, Southsea, by the Rev. P. D. Hutt, incumbent of Holy Trinity, Portsea, Captain John Laison Perry, Royal Navy, son of John Perry, Esq., of Eastbourne, late of Luton Grange, to Edith Lilian, eldest daughter of Ernest Elliott, Esq., M.D., of Warwick House, Southsea.

DEATHS.

Bellen, G., jun., M.R.C.S.E., at Ipswich, on January 17, in his 40th year.
Fitzpatrick, P., M.D., at Port Louis, Mauritius, on December 9.
Stevens, Alexander Richard, M.D., of Rodney-street, Liverpool, on January 19, aged 61 years.
Swift, G., L.R.C.P. Edin., of Elford hill, Edgeshall, Staffordshire, on January 5, aged 64.
Taylor, D. C., M.D., Staff-Surgeon 14th Depot Battalion, at the Barracks, Sheffield, on January 4, aged 37.
Wright, W., F.R.C.S.E., of Nottingham, on January 7, aged 74.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bangor and Beaumaris Union.—The Second Anglesey District is vacant; area 4,095; population 6217, salary £70 per annum.

South Molton Union.—Mr. Edwin Furse has resigned the Fourth District; area 24,824; population 3441; salary £47 8s. per annum. Mr. George Wight has resigned the Eleventh District; area 7799; population 1139; salary £28 per annum.

Northampton Union.—Mr. A. Hird has resigned the Forthampton District; area 8297; population 1912; salary £35 per annum.

APPOINTMENTS.

Chesterfield Union.—William H. France, M.R.C.S.E., L.S.A., to the Whittington District.

Physician Extra.—Richard Jones, L.R.C.P. Edin., L.F.P. and S. Glas., to the Llanfihangel-y-Traethau District.

Physician Extra.—Thomas S. Usher, M.R.C.S.E., L.S.A., M.D. St And., to the Middle District.

Surgeon Extra.—Frederick A. Best, M.R.C.S.E., L.S.A., to the Saham Toney District.

THE QUEEN'S UNIVERSITY.—A meeting of the Convocation of the Queen's University in Ireland will be held at Dublin Castle, on April 14 next, for the purpose of electing a Senator to supply the vacancy created by the death of the late Earl of Rosse. No candidate can be put in nomination unless a proposition for his nomination in writing, signed by ten members of Convocation, shall have been transmitted to the clerk at least twelve days previous to the day of meeting.

THE ACTION OF MEDICINES.—An important and interesting discussion as to the influence and doses of certain medicines is expected to come off on Thursday evening next at the Harveian Society. Dr. Fuller, of St. George's Hospital, will, we believe, open the debate, which will be joined in by various other distinguished therapeutists. It is rumoured, also, that one of the results of the discussion will be the appointment of a committee like that in the Pathological Society to consider the subject of drugs in their relation to disease.

PROFESSOR HUXLEY ON EDUCATION.—Professor Huxley, we are glad to learn, intends to publish his recent address on education in one of the literary monthly periodicals. We believe *Macmillan's Magazine* is the journal selected. Professor Huxley has pointed out the essential principles on which true education should be based, and we hope that his observations may receive the attention which is due to an expression of opinion on one of the most important topics of the day, and by one of the most acute observers and deepest thinkers of modern philosophy.

RAILWAY ACCIDENTS.—Elderly couples who hold railways in such dire fear should be consoled by the latest returns on the subject of railway casualties. The statistics for the year 1866 show it to have been a singularly favourable year. In that year the number of passengers killed was only thirty-one out of nearly 274,25[illegible],000 who travelled on the various lines. It seems, too, that of these thirty-one sixteen met their death entirely through their own carelessness. The number who received injuries was only 540, a very minute fraction of the total number.

TESTIMONIAL.—At the annual meeting of the Torquay Infirmary and Dispensary, the Governors voted the sum of twenty guineas to Dr. Powell, the House-Surgeon, in testimony of the extraordinary services rendered by him during the prevalence of fever in the institution.

THE *Bombay Gazette* of December 10 publishes an account of the presentation of a farewell address to Surgeon-Major David Wyllie, M.D., of the Medical staff, by the inhabitants of Ahmedabad. The address was signed by a large number of Europeans and natives of wealth and position. It was to be followed by the presentation of plate and a diamond ring to Dr. Wyllie.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—A quarterly meeting of the above Association will be held at the Ship Hotel, Charing-cross, on Friday, the 31st inst., at 7·30 p.m., when various subjects of interest to Poor-law Medical Officers will be brought forward for discussion—among them the provision of medicines, etc., by the Guardians under the Metropolitan Poor Act of 1867; the appointment of dispensers to workhouse infirmaries; and special dietaries for all classes of workhouse inmates. Reference will also be made to the large amount of "desk work" imposed upon Medical officers, and a remedy suggested. Important correspondence with the Poor-law Board will be laid before the meeting. Medical officers who have not joined the Association, and all persons interested in the welfare of the sick poor and of the Medical service, are earnestly invited to attend.

LOSSES OF THE PRUSSIAN ARMY IN THE LATE WAR.—According to the official statement published by Dr. Grimm, Medical Director of the Prussian Army, there were 16,177 Prussians wounded, of which number 2931 were so fatally, and 1519 died subsequently, making a total of 27½ per cent. of the wounded. Then 6127 died of disease, 90 per cent. of the [illegible] [illegible]—*Correspondenz-Blatt*, No. 7.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund held on January 14, Sir E. Hilditch, Inspector-General, in the chair, the sum of £80 was distributed among the various claimants.

AT the [illegible] of the Society of Surgery of Paris, held on the 8th inst., Mr. Oliver Pemberton, Surgeon to the General Hospital, Birmingham, and Professor of Surgery in the Queen's College, was elected a foreign corresponding member.

READING'S NEW INVALID COT CARRIAGES are made on an improved principle, the interior being fitted with a suspended couch, 6 feet 6 inches long, with patent elastic foundation, and so constructed that the position of the patient may easily be altered, and that he may be withdrawn from the carriage or replaced with the greatest facility whilst reclining on it. There are also fittings for sanitary purposes, in conjunction with a reading lamp, and room for four other persons inside. The carriage is well ventilated, and provided with the patent noiseless wheels, and will be found the most perfect of any hitherto built.

NEGLIGENCE OF MILITARY AUTHORITIES.—The *Pall-mall Gazette*, a journal to which sanitary progress owes more than to any other representative of the newspaper press, gives the following account of a piece of glaring and inexcusable neglect on the part of certain military authorities. Our contemporary expresses its regret that the House of Commons is not sitting, in order that Sir J. Pakington might have an opportunity of exhibiting his singular powers of explanation on the subject. The extract is from a letter:—"On Saturday, the 18th inst., a S.W. gale raged in the Channel, with a heavy rainfall. Here was an opportunity for the authorities at Portsmouth to display that regard for the comfort and well-being of the soldier for which they are so well known. They did not neglect it. In the midst of this tempest they sent by sea to the Royal Victoria Hospital, Netley, 200 invalids, most of them just arrived from India and Malta, with a proportion of women and children. The disembarkation of this forlorn party at Netley occupied exactly three hours, the men being meanwhile exposed to the pelting of the storm, and when at last they were housed they were wet, cold, and miserable, and, unless we are misinformed, some of them have had their complaints aggravated by this cruel and unnecessary exposure. Now, who did this? Who is responsible for it? The public have surely some right to expect an answer to such questions, not, however, of the usual Pakingtonian type. Meanwhile, the general commanding at Portsmouth, his quartermaster-general, and the naval authorities of that port, must divide between them the discredit of this want of consideration for sick men and helpless women and children."

OVARIOTOMY IN BAVARIA.—In an article in the *Aerztlichen Intelligenz-Blatt*, No. 50, Professor Nussbaum, of Munich, states that of 34 ovariotomies which he has performed 18 have been followed by complete and abiding recovery. He observes that while of 100 patients in whom tapping had been performed only 20 would be alive at the end of two years, and still very ill, 60 out of the 100 will be found in the enjoyment of good health after ovariotomy.

EMBOLISM OF CEREBRAL CAPILLARIES.—Those of our readers who have studied the interesting lectures of M. Vulpian, an analysis of which recently appeared in these pages, may remember a reference to certain experiments of Flourens and others, in which an inert powder was introduced into the arteries. The result of this introduction was to produce destruction of the force-developing power of the brain. The experiment is thought to demonstrate that the particles of powder (lycopodium), being driven along by the blood-currents, (1) ultimately plug up the cerebral capillary vessels, and (2) thus cut off all blood supply to the brain. We call attention to the phenomenon because it has been offered as an explanation of a very remarkable case brought before the Pathological Society, on Tuesday night, by Dr. Anstie. The patient had been suffering from pneumonia, but symptoms of cerebral disease showed themselves and he died very suddenly. Post-mortem examination showed no brain lesion to account for death, but it revealed the existence of a small abscess which had burst into the left ventricle of the heart. Dr. Anstie does not urge it as a satisfactory explanation, but he asks a question which, perhaps, some of our readers may be able to answer: Did the pus corpuscles, in escaping from the abscess, reach the [illegible] [illegible] by producing an obstruction

to the capillary circulation, and thus give rise to the fatal result? If the answer be in the affirmative, it is certainly a most remarkable instance of what may be styled capillary embolism.

Good Wine in Bad Bottles.—A French agricultural journal reports the fact that a Bordeaux wine-merchant lately observed that the glass of a considerable number of his bottles had become opaque, and that the wine which they contained, and which was a very expensive one, was quite undrinkable. Chemical experts, who were called in, determined that the change in the wine arose from its having become neutralised by the alkali of the glass, owing to the bad manufacture of the bottles.

Bichloride of Methylene.—Professor Nussbaum, of Munich, under the erroneous impression that this substance had displaced chloroform in the London Hospitals, determined to try its effects upon himself and his patients. Not that he is dissatisfied with the results obtained from chloroform—far from it, for in more than 15,000 cases in which he has administered it he has never met with any accident of importance. He thinks the bichloride of methylene has no claims of superiority over it beyond being of a pleasanter odour, against which its great expensiveness may be well set. He found the effects produced in all the stages of its administration to be scarcely distinguishable from those produced by chloroform, except that complete return of consciousness occurred somewhat later. As to danger, he believes that that is pretty much alike in all these anæsthetics. It does not arise from the commingling of the material with the blood, but from the closure of the air-passages during the stage of muscular excitement, or, what is worse, from the paralysis of the sensory and motor nerves being extended to the heart and respiratory organs. These effects may just as easily be induced by the one article as the other. —*Wien. Med. Zeitung*, November 26.

Dr. Letheby on Earth *v.* Water Sewage.—The following letter from Dr. Letheby was read at the late meeting of Medical Officers of Health :—"With respect to the papers which are to be read to-morrow evening, I regret that I shall not have the opportunity of hearing the discussion of them; for, undoubtedly, there is no more difficult or important question than the means of disposing of town sewage. In common with all who have had any large experience of this matter, I have long perceived that the present system of diluting the excreta of the human body with from twenty to forty gallons of water per head of the population is both wasteful and mischievous; for it not only destroys the value of such excreta for agricultural purposes, but it also creates a gigantic difficulty. At the present time the rivers of England are so polluted with sewage as to be a local nuisance as well as a national disgrace; and if it were not for the self-purifying power of water, especially when it is charged with not more than a twentieth part of its volume of sewage, and has a run of not less than ten miles in distance, the condition of our rivers would be such as to be a fruitful source of pythogenic diseases. Happily, however, under the circumstances just mentioned, the powers of disintegration, precipitation, and oxidation, as well as those of animal and vegetable life, are, in most cases, sufficient to purify the water and render it fit for all purposes. Nevertheless, there can be no question that the undefecated sewage of towns should be kept out of our rivers, and the great problems of the present day are—whether we shall collect the excreta of man and animals without admixture with water, and by some simple chemical process render them innocuous and, at the same time, fit for agricultural purposes, or whether we shall still go on diluting them with water, and then defecating the product by irrigation on suitable lands or by chemical treatment. No doubt there are generally some special local circumstances which will give a selective value to one of these methods of treatment, by rendering it more easy of application than the others. But I look hopefully to the time when the excreta will be so treated as never to exist in sewage, but be utilised in their undiluted condition. Whether the earth closet, as at present designed, will accomplish this, is very questionable, and I am not at all sanguine of its success, for the difficulties of its application in large towns are, in my opinion, insurmountable, and the use of earth in country districts hardly needs the complication of such an apparatus. I am, however, sure that we shall be doing a public service by considering the question in all its bearings, and carefully examining, without hastily judging, the value of every invention that relates to the subject."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

M D.—Only at St Andrews, and only if over 13 years of age.

The Author of "Steam Tug to the Tropics."—It shall appear next week.

H L M.—The cut you refer to appears to be an old-fashioned one. If so, I commend gentle aperients, with a small dose of acetic extract of colchicum nightly.

Paterfamilias.—We have not the slightest sympathy with materialistic doctrines; but we think a Physician justified in saying that it is his business to attend to matter and its physical properties, and to leave morals and metaphysics to clergymen and metaphysicians. We want a thorough material philosophy to investigate matter, and no amount of material or physical investigation can be of itself contrary to "faith in God, the immortal life, and a revealed religion."

D. T.—The law, we think, will prevent such a person recovering for his visits and medicine, but it will not interfere with his practising or assuming the title of Dr.; but if he falsely pretend to be a registered person, he is liable to a penalty, and any certificate he may give is not valid. It is probable, however, that he might be successfully prosecuted under the Apothecaries' Act of 1815. Our correspondent had better write to Dr. Francis Hawkins, the Registrar of the General Medical Council; and to Mr. Upton, the Clerk to the Society of Apothecaries.

Distressing Case.

Mr. Padmore, a M.R.C.S.E., 1828, practised for about twenty-four years at St. Helier's, in Jersey. He was a widower, and died three months ago, leaving three children entirely destitute, and with no relatives in a position to assist them.

The eldest, a son, 25 years old, is deaf and dumb, and paralysed. The second is a daughter, aged 18; and the third, a boy, aged 5 years. It is hoped that the deaf and dumb son may be got into an asylum; that the daughter may be started in some respectable business; and that the youngest boy be admitted into the Medical Benevolent College. But, in the meanwhile, money is urgently needed for the support of the family, and to enable the daughter to maintain herself. Contributions are therefore earnestly solicited, which will be thankfully received and forwarded by John E. Erichsen, Esq., 6, Cavendish-place, London; and by the Editor of this journal.

	£	s.	d.
J. E. Erichsen, Esq. (London)	3	3	0
Dr. Monro	1	1	0
Ernest Hart, Esq. (London)	1	1	0
Mr. Paget (Leicester)	3	3	0
E. J. A. (East Retford)	1	1	0
D. M. B. (St. Bartholomew's)	1	1	1
S. W. W.	1	0	0
Dr. Pennington (Liverpool)	1	0	0
Mr. Joseph Bell (Edinburgh)	1	1	0
Dr. Tanner (London)	1	1	0
Mr. Langston	0	10	0
Postage Stamps	0	3	0
A Friend (Tenbury)	1	1	0
Mitchell Clarke, Esq.	1	1	0

Apsley *versus* Statham.—Fresh Contributions.

	£	s.	d.		£	s.	d.
Brown, J., Esq.	0	10	6	Leggett, Alfred, Esq.	1	1	0
Campbell, Walter, Esq.	0	10	6	Longhurst, Sidney, Esq.	1	1	0
Cask, Dr. J.	1	1	0	Luke, Dr. J.	1	1	0
Catlin, W. A. N., Esq.	2	2	0	Marsden, A., Esq.	1	1	0
Catlin, W. A. N., Esq., jun.	1	1	0	Merryweather, J., Esq.	2	2	0
Cooper, Alfred, Esq.	2	2	0	Normansell, F., Esq.	1	1	0
Cormack, D., Esq.	1	1	0	Nightingale, C. G., Esq.	1	1	0
Cox, Edwin, Esq.	0	10	6	Parkinson, E., Esq.	0	10	6
Evans, —, Esq., Paris	2	2	0	Parkinson, J. H., Esq.	1	1	0
Fleming, Dr.	1	1	0	Payne, T. P., Esq.	1	1	0
Gilbert, —, Esq.	1	1	0	Perkins, H. J., Esq.	1	1	0
Great Northern Hospital	10	10	0	Petty, T., Esq.	1	1	0
Helfrich, R., Esq.	1	1	0	Pilling, R. C., Esq.	1	1	0
Hepburn, Robert, Esq.	2	2	0	Reid, R., Esq., Edinburgh	2	2	0
Hepburn, D., Esq.	1	1	0	Smith, Dr. Protheroe	2	2	0
Hepburn, D. D., Esq.	1	1	0	Thomson, Dr. F. H.	1	1	0
Hilton, John, Esq.	2	2	0	Watson, Spencer, Esq.	0	10	6
Hopgood, Thos., Esq.	1	1	0	Williams, Dr. C. J. B.	2	2	0
King, E. H., Esq.	2	2	0	Woolfreys, A. W., Esq.	1	1	0

Contributions continue to be received by the following gentlemen, members of the Executive Committee:—Dr. Richardson, F.R.S., 12, Hinde-street, W.; Dr. Cholmeley, 40, Russell-square, W.C.; S. Cartwright, Esq., 32, Old Burlington-street, W.; W. A. Harrison, Esq., 10, Keppel-street, W.C.; Edwin Saunders, Esq., 13A, George-street, Hanover-square, W., Honorary Treasurer.

Appointment of Registrars.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Would you kindly let me know if Medical men are appointed registrars of births and deaths in England generally, and if it is through the board of guardians the appointment is made, and what the remuneration is for such registration? Apologising for troubling you,

Bridgnorth, January 14. I am, &c. A New Subscriber.

*** Medical men are frequently appointed in towns and populous places. It is a pity they are not always employed, as they could deal more efficiently with certificates of the "cause of death" than can non-professional registrars. The appointment is in the hands of the guardians of the poor in all places in which the relief is administered by a board of guardians formed under the 4th and 5th Wm. IV., c. 76. In places

under local Acts the appointment is in the gift of the Poor Law Board. The fee is to be paid to the parish, the value of the [illegible] pending. [illegible] the payment of such fees [illegible] 1s. for each entry of birth or death, 1d. for each vaccination entered in the parent or guardian's certificate, 1d. for each successful vaccination contained in the birth book [illegible] 1d. for each vaccination certificate if not registered by him; 2s. 6d. for each birth or death certificate applied for, if obtained at time of registration, or 5s. 0d. if such certificate be obtained afterwards.

THE NEW FACTORY ACT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall [illegible] be obliged if you will inform me, in your next impression whether the new Factory Act, which is now [illegible] involves the appointment of a Medical inspector of children; also, what fees are paid for the certificates of inspectors; and, if inspectors are appointed, with whom such appointment rests. I am, &c.

York, January 15. APPLICANT.

*** The new Factory Act, 30 and 31 Vict., c. 103, contains no provision with regard to the appointment of Medical inspectors; but the Act of 1844, 7 and 8 Vict., cap. 15, sect. 8, empowers the inspector of factories to appoint certifying Surgeons for the purposes of the Factory Acts. By sect. 13 of that Act the inspector is to fix the Surgeon's fees, and the fees so fixed "shall not, in any case where the Surgeon shall examine more than one person, exceed one shilling for each person who shall be presented to him at the factory, by the mill-owner or his agent, to be examined, together with sixpence for every half-mile that the distance of the factory from the residence of such Surgeon shall exceed one mile; and such fees, including mileage, shall not be less than one shilling, and shall in no case exceed five shillings for any one visit, except when upon such visit the certifying Surgeon shall examine for the said certificates of age more than ten persons who may be brought before him as aforesaid, in which case he shall receive sixpence for each person he may so examine, instead of all other fees." These are the maximum fees; but the section proceeds to fix lesser fees when the factory is within one mile of the certifying Surgeon's residence.

COMMUNICATIONS have been received from—

Dr. BARNES; Dr HILTON FAGGE; Dr HUGHLINGS JACKSON; Mr J. CHAFFEY; Mr J HUTCHINSON; D. WILKS; Dr PRIESTLEY; Mr SPENCER WELLS; Mrs THORNE; M D., Dr MAYSMOOR, Dr HAWKES, Dr KENNEDY; Mr. W. SPEDWICK; Mr J. D. BROWN; Mr H B CONDY, Mr HEMELRYK, Mr. R. MACPHERSON; Dr. R. BEVERIDGE; Mr. J. TYNDALL; Dr. J. ROGERS; Messrs. PALMER and HOWE; Mr. OLIVER PEMBERTON; Dr. DOUGLAS POWELL, Dr ALFRED CARPENTER; Dr WHITMORE; Mr ERICHSEN; Dr E ELLIOTT, Dr. D THOMAS; Mr. B LATHAM

BOOKS RECEIVED—

Southern Journal of the Medical Sciences, vol. 2, No. 3—Synopsis of the Pathological Series in the Oxford Museum—Second Annual Report on the Sanitary Condition of Merthyr Tydfil—Statistical Abstract of the Health of the Navy for the Year 1866-67—Shaw's Odontalgia—Billet's Observations on Asiatic Cholera—Elliot's Obstetric Clinic.

NEWSPAPERS RECEIVED—

Notes and Queries—Yorkshire Post—Torquay Times—Bombay Gazette—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 18, 1868.

BIRTHS.

Births of Boys, 1129; Girls, 1073; Total, 2202.
Average of 10 corresponding weeks, 1858-67, 1932.6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	810	796	1606
Average of the ten years 1858-67	776.5	809.8	1586.3
Average corrected to increased population ..	..	..	1745
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.	Cholera.
West ..	463,388	1	8	10	2	10	3	2	..
North ..	618,210	14	8	13	1	15	12	4	..
Central	378,016	8	9	2	..	8	8	..	..
East ..	571,158	4	4	4	1	11	12	4	..
South ..	773,175	6	8	7	2	26	17	3	..
Total ..	2,803,989	33	37	36	6	..	52	14	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30.615 in.
Mean temperature	44.2°
Highest point of thermometer	49°
Lowest point of thermometer	37.6°
Mean dew-point temperature	41.0°
General direction of wind	S.W.
Whole amount of rain in the week	0.79

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 18, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1867.	Births Registered during the Week ending Jan. 18.	Deaths. Annual Rate per 1000 living (Corrected).	Deaths. Average Annual Rate per 1000 living (Corrected).	Deaths. Registered during the week ending Jan. 18.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3,000,000	2202	30.1	1441	1606	51.9	37.6	44.0	0.79	89
Bristol (City)	167,000	85	16.7	74	88	54	32	42.5	0.95	198
Birmingham (Borough)	350,000	170	25.0	171	162	53.2	31.4	44.8	0.75	76
Liverpool (Borough)	476,000	289	32.0	296	245	52.0	34.0	43.0	0.81	91
Manchester (City)	346,000	215	24.7	208	124	53.0	34.0	43.6	0.74	80
Salford (Borough)	117,000	52	30.0	44	47	53.0	34.0	44.0	0.81	82
Sheffield (Borough)	240,000	104	18.0	122	107	53.1	34.1	44.8	0.91	92
Bradford (Borough)	103,000	64	32.0	70	62	..	..	..	..	..
Leeds (Borough)	250,000	141	24.0	120	117	53.0	33.5	43.1	0.89	90
Hull (Borough)	100,000	59	30.0	58	55	54.0	35.0	44.0	0.45	45
Newcastle-on-Tyne, do.	120,000	69	30.0	73	68	54.0	34.0	44.0	0.28	28
Edinburgh (City)	170,000	100	34.0	85	74	53.7	30.5	42.2	1.79	181
Glasgow (City)	440,000	258	30.0	262	270	54.1	34.0	44.5	1.56	140
Dublin (City and some suburbs)	310,000	228	32.0	157	188	56.2	34.0	45.8	0.79	80
Total of 14 large Towns	..	..	30.7	3105	3136	56.2	29.0	44.5	1.14	115
Vienna (City)	700,000 (1865)	..	..	..	328	..	..	28.9	..	..

Week ending Jan. 11. Week ending Jan 11.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30.615 in. The barometrical reading increased from 29.742 in on Monday, January 13, to 30.412 in on Tuesday, January 14.

The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 30.6°.

APPOINTMENTS FOR THE WEEK.

January 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

27. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Lettsomian Lectures, No 2—"On Bronchitis and Emphysema in Children," by Geo. Buchanan, M.D.

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. T Bryant, "On the Cure of Vesico-intestinal Fistula." Mr Curgenven, "On Infantile Remittent Fever."

29. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2 p.m.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

31. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Rev. F. W. Farrar, "On Public School Education."

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

(*Continued from page 59.*)

On the Connexion between the Cerebro-spinal System and the Sympathetic.

I wish now to speak of the intimate relation existing between the spinal and the sympathetic system. I have explained how the one regulates our voluntary movements, and the other the action of the viscera; but besides these, their special functions, many spinal nerves have a direct distribution to the organs of the body, and exert an influence over them; indeed, late observations have tended to show that in some cases the sympathetic and spinal nerves possess their own special attributes when sent to the same organ. Suffice it for my present purpose to present to you the intimate relations between the twos ystems, whereby impulses from the cerebral, emotional, or spinal centres, may react on the whole bodily machinery, and at the same time disturbances within the viscera make themselves manifest by unpleasant impressions on the sensorium.

I have already alluded to the ordinary excito-motor results obtained by touching the body, also how a violent blow on the spine will act on the heart—I suppose by partially paralysing the sympathetic ganglia, and allowing the pneumogastric to come into play; but to show the connexion between the cerebro-spinal and sympathetic systems, I need only refer you to the effects on the secretory organs. It is worthy of remark that there is scarcely an emotion to which the animal frame is liable but what is evidenced by an effect on the secretions. Sorrow will produce tears. Pent-up grief may influence the liver, and the sufferer becomes jaundiced. Fear may arrest secretion of saliva, as is seen in some of the ordeals of savage nations; whilst the mere thought of a luxurious repast will bring the water to the mouth. Fear, while drying one end of the alimentary canal, may cause undue secretion in the other—a fact which might be illustrated by numerous examples, scientific, pathetic, or humorous. The trail which some nasty animals leave behind them when hunted is well-known, especially, I believe, in America. Another effect is seen on the skin, when the hair stands on end and the terror-stricken man is bathed in a cold perspiration. Mental emotion is seen on the kidneys, where a large quantity of pale urine is secreted; and not only on the secretions, but on the irritability of the organs themselves. There is many a person who has irritable bowels or bladder merely by giving these organs thought. Only lately I saw a young man, who told me he never could sit out a piece at a theatre or a sermon at church if by chance he once thought of making water. I do not know that the music had any influence, although we do read in the *Merchant of Venice* that "Some men there are, when the bagpipe plays in the nose, cannot contain their urine." You see, then, that even in the case of a supposed bladder affection you cannot overlook the nervous supply of the organ.

I will remind you again of what I said in my first lecture, that these nerve forces, once produced by emotion or passion, must have their way or exit somewhere. If acting either on the lachrymal gland or on the alimentary canal, they must be eliminated into the pocket-handkerchief or into the water-closet, otherwise they will react injuriously on the system of the patient. The last illustration, although truly scientific, is also a piece of popular pathology; for a woman once told me that the cause of her son's illness was being frightened by a large dog at a house where he went on an errand, and if the master of the house had let her son go to the water-closet, as he desired, she believed he would not have been ill. *She* said the fright struck inwards. We might adopt different phraseology, but not a better explanation. We hear of the hair turning grey suddenly from fright, as in the case of Marie-Antoinette, whose hair turned white in a single night. I would rather take an example from a man than a woman, for I myself have on more than one occasion had a lady visit me with jet black hair, but on the morrow, when seeing her in bed, this had changed to grey. We also hear sometimes of fear turning the whole mass of blood. I believe this is literally correct. I have seen now so many cases of anæmia, some of them fatal, occurring after a severe shock to the nervous system, that I have no doubt of the fact. How this occurs I cannot tell, until the physiologists inform us in what part of the body the blood is manufactured.

These illustrations are merely to show you that, although the organic machinery is kept at work by the sympathetic system of nerves, yet that, these being associated with the spinal, they are influenced by causes which violently perturbate the cerebro-spinal centres. Now, let us consider on the other hand how, under similar exceptional and perturbing influences, we become sensible of changes going on within us. In a perfect state of health, we probably ought to be in no way cognisant of the machinery which is at work within us, whether this is making new blood, or pumping it through the system. Certain it is that persons in the enjoyment of rude health feel a simple pleasure in existence: they know not they have a brain, or a heart, or a stomach Alas! how few of us can say that! We students who consume the midnight oil know what it is to have a throbbing brain, a palpitating heart, or flatulent stomach. I suppose there is scarcely any one, even in the best of health, who has not experienced some internal sensations: he has had a sinking before dinner, and perhaps a rising afterwards. Now, it has long been a question, both with some metaphysical writers as well as physiologists, to what sense these feelings are to be referred. Are they a part of common sensation, or are they to be regarded in the light of a sixth sense? Some have had no hesitation in teaching that certain sensations which we have within us, dependent on the operations in the alimentary canal, are not referable to common sensation, but must be included in a new sense, in the same way as the muscular sense (supposing there be one) must be regarded as a seventh. At the present time we have no other words to express our internal feelings than those derived from common sensation, and thus, when our patients complain of pricking, burning, swelling, etc., we must take the terms for what they are worth. You will soon observe that patients tell you of swellings within them, which you, innocently translating into tumours, examine in the expectation of discovering a positive adventitious growth. You discover nothing; but the term is the nearest to something definite in their minds which they can adopt If it be said that all our expressions for common sensation have reference to touch, it is certain that many of the feelings which we experience within us cannot come under that category; therefore the bellyache is worthy of being exalted into a sixth sense.

This subject of pain has never, as far as I know, been scientifically considered as a whole, but is one of great practical importance. The sensory nerves are, as you know, distributed all over the skin, and thus we become sensitive creatures, and have perception of all around us. There would be no need of supplying internal organs with such nerves; and thus you find the brain may be softened, and no pain. The lungs may be riddled from end to end, and no pain. The liver may be full of abscesses, and the patient unconscious of it; or advanced Bright's disease is to be discovered only by the Medical man. This is a matter of every-day experience, and thus, if we could absolutely state that the external shell of the body is sensitive while the interior is not we should have an important fact to help us clinically. I myself believe this, in a general sense, to be true, and of great assistance in diagnosis. For instance, pain in the head generally means implication of the sensitive nerves in the skull or membranes, but not disease of the brain itself. The pain in pleurisy means that the chest walls are involved, the simple pleurisy accompanying a pneumonia causing no pain. In peritonitis, pain implies an implication of the abdominal walls, the inflammation of the coverings of the organs or deeper-seated parts not necessarily producing pain. In the case of the hollow organs severe pain may occur, but certainly not, as in common sensation, by substances passing over the mucous membrane, as in the case of the skin; for not only may large bodies, as stones, pass along them without producing any sensation, but ulceration may exist in the stomach and throughout the intestines without the production of any pain whatever. When these organs spasmodically contract, or are unduly stretched, as in colic of intestinal canal, gall-duct, or ureter, then an agonising pain is produced I say it would be an important and interesting study to ascertain what amount of sensation exists within the body, and under what exact circumstances pain is produced.

The uses of pain are obvious in expressing to us the abnormal condition of some part of the body, but it must be remembered that the sensitiveness of persons varies immensely.

Thus I have seen a man endeavour to hide the fact that he had a severe blow on the head by saying he had had a slight knock when at the time he was suffering from fractured skull. Another person, especially a woman, will grow eloquent over her sufferings when you can find nothing but a quick beating heart or flatulent abdomen. This shows that in judging of pain we have not only to regard the spot where the pain is said to have its seat, but we must not neglect the condition of the nerve centre on which that impression is made. We must remember the law of our natures, whereby all sensations are referred outwardly, and recollect the fact that when a nerve is irritated in any part of its trunk the sensation is referred to its extremity. The commonest example is that where, a leg being amputated in any portion of its length, an irritation of the nerves of the stump produces a sensation referred by the recipient to the foot or some part below where the branches of the irritated nerve had at one time been distributed. A pain thus produced is a real objective sensation, but by what name shall we designate that sensation caused by an irritation made at the centre itself or by no irritation at all, but due merely to an over-sensitive or morbid condition of the ganglionic centre? It does seem possible for a person to have such an impressionable sensorium, either as a natural or morbid condition, that he would, were that centre sensitive, have pain in it; but not being sensitive (the brain, spinal cord, and ganglia possess no feeling), the impressions are referred to some external part of the body. A person, therefore, who possessed this morbid nerve centre, would feel a pain in some part of the body to which is distributed a nerve which has its origin in that centre. He would be suffering, not a real, but a subjective pain, and that man I call a *hypochondriac*. You see the pain is real, for if not the patient would be shamming; but the hypochondriac does not sham, the pain is a reality within him.

If you take this idea in the larger sense, and say that the whole sensorium is so affected or so morbidly sensitive that impressions perceived there have no reality, then the brain is diseased—the person is mad. He is conjuring up images without any corresponding picture on the retina, or hearing sounds without the membrana tympani having responded to a single vibration—the man, I say, is mad. He hears a voice you cannot hear; he sees a hand you cannot see, etc.; and so I take it that hypochondriasis is a species of madness, or a little madness, for some nerve-centre must be wrong when it is sensitive of impressions which have never been made upon it. If this be so, say you, how difficult to ascertain the real state of a patient when we have nothing but pain to guide us to the truth. It is most difficult. It is the great difficulty which the Medical man is attempting to surmount all day long. You may infer as a rule that when you see a patient very impressionable, the real cause of suffering is less than it would be in another. If tears are shed, showing the patient is very emotional, the cause may be most trifling. A short time ago, I had two women patients side by side in the ward. One had most violent attacks of neuralgia coming on in paroxysms. She suffered an agony, but never exclaimed, and never shed a tear. Her neighbour, an anæmic woman much out of condition, in a highly nervous state at a climacteric period of life, could never relate her sufferings without weeping; but, as far as I could discover, she had no bodily disorder. You may now understand what I meant to imply when, showing you that old man in Stephen Ward who has had an excruciating pain at the pit of the stomach for six years, I said he had a mad semilunar ganglion. The inexperienced generally argue in a manner the very reverse of this, and thus you will find that nervous women, and the most demonstrative, and the most emotional, are those who will receive the sympathy of the benevolent, while the real sufferer will keep his troubles to himself, and be uncared for.

If, then, a person have a feeling of discomfort in any part of the body, or a pain, and there be no cause for it at the spot, in the nerve, or in any other part whence the irritation might be reflected, the nerve-centre is at fault. In an extreme case he would be said to have delusions—be mad. We can form some conception of this by remembering what condition our brains are in during sleep when the dreaming thoughts are regarded as realities.

> "They are the children of a rifle brain,
> Bred of nothing but vain phantasy."

A man in his sleep may start up fancying that he has seen some one, or by a loud knock at the door when all has been still. Such a condition during waking is madness; a modification of it is hypochondriasis.

No cases require our more serious attention than these, especially in women. If a real pain exist, and that be due to a definite cause, it must be treated; but, as is often the case when the sensation is only within, what mischief must accrue from keeping the attention of the patient fixed on an imaginary evil instead of attempting to divert her from herself. The evil of treating imaginary disorders is exceedingly great, especially in the more secret troubles of women.

The hypochondriac is a person who is a misery to himself; he has so sensitive a nervous system that he becomes a prey to every sensation in his body, and which is converted by him into a most painful impression. He watches every symptom, and comments upon it with the utmost vivacity. He visits in turn every Doctor in London, and carries about a heap of prescriptions, and enough for a hundred people. He never looks away from himself; his mind is always turned inwards on his own feelings. He reads Medical books, and finds his own case exactly delineated within. He feels his own pulse, and carefully examines his tongue every morning, and to keep it clean buys a tongue scraper. He will tell you about his urine and motions, even to the most disgusting minutiæ. Even during his dinner, he is thinking of his bowels, and is taking such articles of diet as will in some way affect his "secretions." Such patients exist in very large numbers. They are often deranged in health, and that their whole nervous system is out of gear is clear from the dyspepsia, flatulence, palpitation, etc. The proper treatment can rarely be adopted, because the patient is his own master, and no sufficient control can be exerted upon him. He calls upon a Medical man, and, should the latter take a right view of the case, he would inform the patient that very little really ailed him, and that by taking physic for these different troubles he was only perpetuating them. The Doctor may give the advice, but cannot enforce it; consequently the patient may go to some one less conscientious, or at last fall into the hands of quacks, who then keep a tight hold of their victim—unless, indeed, he be advised by some enthusiastic lady to try homœopathy, when there may come about a very harmless termination to his difficulties; for then he may consult his book all day long, and amuse himself by calx No. 5 every morning, or tincture of sulphur to the millionth dilution every night. There is a gentleman in this neighbourhood of independent means, and therefore with nothing to occupy his time but his own feelings. He looks upon his body like a piece of machinery, which must be constantly kept oiled, and he has a file of prescriptions containing various remedies. One he takes for flatulence, another for heartburn, one when his tongue is furred, and another when his eye is yellow; medicine for his bowels when he goes to the water-closet once a day, and another when he goes twice, and becomes really eloquent over the colour of his motions, or the "secretions" as he politely calls them. He meets me in the street; I am obliged to feel his pulse, unless I can rapidly pass behind him whilst he is standing before the jeweller's shop, apparently looking at the goods, but really gazing at his own tongue. The best advice for such a man is that of Abernethy—"Live on a pound a week, and earn it."

Surgical Examinations.—During the past week, eighty-seven candidates for the diploma of Membership of the Royal College of Surgeons of England have been undergoing their examinations in Surgery, pathology, and the application of bandages, which has now become an important feature in testing the knowledge of students with regard to these appliances; and out of the above number no less than seventeen failed to reach the required Collegiate standard, and were consequently referred to their Hospital studies for six months. One candidate, having been taken seriously ill on the 23rd, was allowed to postpone the completion of his examination until the next meeting of the Court in April.

Discussion on Tuberculosis.—One of those prolonged and interesting discussions which so often characterise the proceedings of the Paris Académie de Médecine is now going on. Commencing with the subject of the inoculation of tubercle by M. Villemin, it has entered into a consideration of the general pathology of that affection. Some of the discourses are remarkable by the talent they display; but they occupy a length of time in their delivery which would be tolerated by no audience in this country. Their diffuseness prevents our doing more than directing the attention of our readers to the full analyses which are to be found in the French Medical weeklies, as well as the verbatim report in the *Bulletin* of the Academy. The chief speakers have been MM. Chauffard, Béhier, and Hérard.

ORIGINAL COMMUNICATIONS.

AN EPIDEMIC OF OPHTHALMIC DISEASE.

By Sir W. R. WILDE, M.D., Dublin.

I BEG briefly to record the following hitherto undescribed epidemic in Ireland. The end of last year and beginning of this was characterised by an epidemic constitution that principally affected children and young persons. Some writers styled it "black death," others malignant typhus. These terms I need not discuss. There is no doubt that a febrile epidemic of a peculiar nature existed, and that it was complicated with sudden and sometimes fatal affections of the cerebro-spinal system. During the past year I have been consulted about eye cases that I may describe as follows :—

The subjects were generally girls, and from one month to five or six years of age. The disease in most instances commenced with fever of considerable violence, frequently accompanied by a measly eruption of about two days' duration. In some instances there was also a special redness and swelling of the joints, particularly the elbows, knees, and ankles, like what is seen in diffuse inflammation, or what gives a suspicion of blood poisoning, or in rapid cases of malignant scarlatina.

After a day or two one eye became affected, and then the general symptoms usually mitigated. The ocular symptoms were : General but slight vascularity of the conjunctiva, but no chemosis or purulent discharge beyond what occurs in catarrhal ophthalmia ; zonular redness of the sclerotic vessels round the cornea, and some slight pain and intolerance of light. I have, however, seen cases in which there was scarcely any redness of the tunica albuginea. The eyelids were but very slightly affected ; globe very tense, and apparently enlarged.

The cornea first showed symptoms. In some cases it commenced with superficial ulceration, but in most of the instances that came under my observation in the early stage, it suddenly became grey, as in subacute corneitis in weakly subjects. At the same time the iris advanced towards the cornea, when it was found to have rapidly changed its colour to a greenish brown, showing intense internal inflammatory action, probably extending in the choroid likewise, and in all probability commencing in the interior of the eye.

In nearly every case the anterior chamber became full of lymph in a few hours, and lymph was also effused on the external surface of the cornea, as in cases of diphtheria ; and, as in all such cases occurring on the surface of the eye, presented a raised line where the eyelids met below the central axis of the globe. The symptoms subsided slowly ; the cornea did not slough or burst except in one case that came under my notice, but I have not seen as yet a single recovery.

In only one case have I seen the second eye affected, and that was in a twin child of three months old. In those cases that I have had an opportunity of examining subsequent to the inflammatory attack, the majority presented a softened and partially collapsed globe, discoloured iris, partial or complete adhesion of pupil to lens, which was of a dirty yellow colour. I have been well acquainted for many years with the local disease described above, both as occurring in infants in the form that I have mentioned, and in children from 5 to 12 years of age, as in diphtheritic affection of the eye, in which I have sometimes been able to draw off with a forceps from the anterior surface of the cornea a layer of lymph, but I have never known it to assume an epidemic form until the present. I have seen several cases in Dublin, and have also been consulted for cases that occurred at Blackrock, Howth, Templemore, and in other localities.

Dr. Wilson has recorded, in the *Dublin Quarterly Journal* for May last, some ophthalmic symptoms in connexion with cerebro-spinal meningitis, but they do not appear to resemble the foregoing.

PROFESSOR HUXLEY, F.R.S.—The following will be the programme of the course of twenty-four lectures on Comparative Anatomy, to be delivered by the above gentleman in the theatre of the Royal College of Surgeons, commencing Monday, February 3, viz.—General remarks on the *Invertebrata*. The classification of the *Invertebrata*. An account of the organisation of the several groups of invertebrate animals in the following order :—The *Protozoa*, the *Infusoria*, the *Annuloida*, the *Annelida*, the *Arthropoda* or *Articulata*, the *Cœlenterata*, the *Molluscoida*, the *Mollusca*.

ON THE

RESULTS OF EXCISION OF THE KNEE AT KING'S COLLEGE HOSPITAL DURING THE LAST YEAR.

By HENRY SMITH, F.R.C.S.,
Assistant Surgeon to the Hospital (a)

NEARLY fifteen years have elapsed since my late lamented friend Mr. Jones, of Jersey, astonished and delighted the Fellows of this Society by exhibiting two patients upon whom he had performed the operation of excision of the knee-joint in the Hospital at St. Heliers. Probably there are some present who will recollect the great impression which was made by the sight of those two young men who walked up and down the room with straight and useful limbs, and there can be no doubt that those who heretofore were sceptical about the possibility or probabilty of turning out a good useful limb after removal of the entire knee-joint, were convinced from what they had witnessed that such a thing could be accomplished. Mr. Jones had happily chosen the time for bringing before our very eyes the result of his experience ; for at this period a great controversy was being carried on regarding the merits of this operation, which had been tried, then abandoned for years, notwithstanding the notorious success of Park, and then revived two or three years previously by the Professor of Surgery in King's College. This visit of Mr. Jones to the Medical Society of London had, I believe, a large share in bringing about the results which took place in regard to this operation, and which consisted in the gradual adoption of it by the best Surgeons in this country, and in its being finally accepted as one of the great improvements in modern Surgery. Towards this end also worked, in an able and worthy manner, another late lamented Fellow of this Society—viz., Mr. Price—and many of us remember with what intense enthusiasm he was wont to labour in the cause which was so near his heart, and with what interest he used to discuss his favourite theme.

It has appeared to me that, under these circumstances, the subject of excision of the knee-joint may not unfitly be brought before the Fellows of the Medical Society of London now that a considerable interval of time has elapsed since the newly revived mode of treating incurably diseased or deformed knee-joints obtained such an impetus by what had occurred in these rooms ; and I make no apology for bringing this subject forward at our opening meeting to-night. It will be readily understood, of course, that it is not my intention in my present observations to discuss the question as to whether excision of the knee-joint be a proper operation. If I were to do this, I should be simply going backwards for a period of fifteen years, and ignoring all the labour which has been devoted to the subject. I purpose to bring before you in detail the experience we have had of this operation at King's College Hospital during the last sessional year, and from the individual cases to draw any deductions which may be useful to us as practical Surgeons ; and it will be seen on relating the cases that there will be an ample field for obtaining the most valuable practical information. The patients who have been treated have exhibited examples of various conditions of disease, have been under the care of different Surgeons, and have furnished results of a varied character ; and it is impossible to bring forward such cases without our finding considerable means for reflection and discussion.

I do not, however, desire to limit the consideration of the entire question by those present, if it be thought desirable ; and, indeed, I must in a few words take some notice of the objections which have been brought against the operation in a paper read at the recent meeting of our Profession at Dublin. Dr. Kirkpatrick, of Dublin, doubts the value of excision of the knee-joint, but he bases these doubts not upon any experience of his own, but upon the opinions of others—for instance, Mr. Holmes Coote, notoriously an opponent of the operation—and, as an objection to it, he says excision has rarely been done in private practice. Curiously enough, whilst objecting to this mode of treatment, he proposes interfering actively, by means of a combination of knife and caustic, in the early stages of diseased joints, or, to quote his own words, "at the very earliest moment that congestive inflammation of the head of a bone can be fairly diagnosed." His mode is to cut down on the bone by a knife or trocar, piercing the compact tissue, and then freely cauterising the

(a) Read before the Medical Society of London, October 21, 1867.

perforation with potassa cum calce. Of the value of this treatment I cannot judge, nor does the author give any satisfactory evidence of its benefits in his paper; but I think that most Surgeons would agree that we are not warranted in interfering so actively with joints in the early stages of disease, and that we ought to put our faith in less heroic measures. At all events, it does seem to be very inconsistent to object to excision in instances where there is no hope of remedy, and in the very same breath to recommend such a severe method as cutting and causticising in the very early stage of the disease, when, if ever, there is reason to hope for amendment by position, rest, counter-irritation, and constitutional measures. Dr. Kirkpatrick, with others, has produced as an objection to the operation of excision of the knee, that it has rarely, if ever, been done in private practice. But it really is childish to mention this as an argument against the operation. The very same fact, as applied to amputation, might be used against that operation. How rarely is amputation of the thigh performed for articular disease of the knee in private! Then, again, how rarely is excision of the elbow-joint—an operation recognised by all, I suppose—performed in private! The fact is patent to all observers that the condition of patients among the rich and the poor is as different as are the situation and structure of their habitations. Joint disease in the middle and upper classes is comparatively rare, and when it does exist those circumstances which are so favourable for the repair of the mischief generally obtain—pure air, good food, and the means of keeping the limb in a state of repose. But how different is the state of things amongst those who furnish our Hospitals with examples of joint disease! In the first place, we do not see the cases until disease has become far advanced, and if any amelioration is produced by treatment the patients return to their miserable homes, where all the conditions which favour disease are so rife. A joint only partially repaired is soon placed under the most unfavourable circumstances—morbid action is again set up, and soon disorganisation takes place beyond the hope of remedy. I repeat, therefore, that, knowing this, it is unreasonable for any Surgeon to bring forward the fact of excision being so rare in private as an argument against the operation. However, as it is not my especial purpose here to enter into discussion about the merits of the operation generally, I need not refer to any other objections which have been brought forward.

In order to come to some pretty correct conclusion regarding any operation or other Surgical measure, we cannot do better, I think, than give the particulars of a series of cases which have occurred within a certain period, and without any discrimination whatever. On the other hand, the publication of a single case now and then, whether followed by great success or disastrous results, is of comparatively little value, and leads to the formation of the most incorrect conclusions; the given results, moreover, of a series of what are called picked cases are equally fallacious. We shall avoid this common error by giving results quite indiscriminately.

During the last year, commencing from October, 1866, there have been at King's College Hospital fourteen cases of excision of the knee-joint; of these fourteen cases four were operated on by Sir W. Fergusson, three by Mr. Partridge, one by Mr. Wood, and six by myself, and out of this number two have died from the effects of the operation. I shall now briefly detail the particulars of each case, and I shall commence with the two cases which terminated fatally, and which, I regret to say, were both under my own care.

Case 1.—R. C., aged 20, was received into King's College Hospital in December, 1866. She was suffering extreme pain in the right knee, which had been swollen and disabled for nearly six years, during which period she had been under various treatment. There was no evidence externally of serious mischief, no abscess nor sinus, but the knee was enlarged, anchylosed in the straight position, but horribly painful to the touch, and her night's rest was completely destroyed by violent startings. Her health was much reduced. Thinking that some relief might be obtained, I applied the actual cautery and kept her quiet in bed for some weeks, but no benefit ensued; and on January 12 I removed the anchylosed knee, and on making the section through the femur found out the cause of the severe pain in the shape of an abscess in the cancellated tissue of the femur. There was very little shock, but a rigor occurred on the fourth day, and was twice repeated; other symptoms of pyæmia set in, and the girl died on the tenth day. On post-mortem examination we found diffuse suppuration of the femur, sero-purulent effusion in right pleural cavity, and consolidation of right lung.

Case 2.—J. S., aged 5, was admitted under my care in May, with extensive disease of the left knee. She had been under my care for twelve months, the joint gradually becoming more enlarged and useless. I excised the joint June 8. There was great degeneration of the synovial membrane, but the bones were healthy. On the eighth day she had a severe rigor, which was repeated in forty-eight hours. This symptom was followed by great depression, and she gradually got worse, and died on the eighteenth day. Post-mortem examination revealed diffuse suppuration of the cancellated tissue of the ends of the bones; abscesses in the lung and in the spleen, as well as in the kidneys.

These two cases illustrate the kind of death which occurs after this operation—viz., that produced by pyæmic poisoning. This is the great thing to be dreaded after this operation—in fact, I may say the only thing; for now that the operation itself and the after-treatment have been rendered so comparatively simple, there is no reason to dread the advent of shock or of bleeding—two circumstances which, in the earlier operations, were wont to give us some trouble and produce a fatal event now and then.

Case 3.—W. Perkins, aged 15, a strumous lad, admitted in October for disease of the knee. Mr. Partridge operated on him in November, removing the entire joint, which was much diseased. No bad symptom occurred, and the boy was dismissed at the end of March. He has been repeatedly at the Hospital since, and I examined him in September last, the limb being straight and firmly united by a strong fibrous union, and the lad having good use of his limb. There is nothing in this case to call for remark beyond the fact that it was an eminently successful one.

Case 4.—A strumous boy, aged 12, was admitted under my care in Febrnary, 1867. He had previously been in the Hospital, and I had excised the knee-joint for extensive disease in the previous August. From this operation he had made a good recovery; but the wound made in the operation never healed up entirely, but several sinuses remained, and, although he went into the country and got very much improved in health, he was admitted again under my care. The limb was quite stiff and straight from anchylosis having taken place; but there was great swelling of the tissues about the site of operation, and there were two or three sinuses which led down to bare bone. I determined to make another effort to save the limb; and accordingly on February 9 I reseoted the knee. I found the bones united by very firm fibrous anchylosis. I sawed off a slice both of the tibia and femur, and on coming to examine the latter, there was found a groove at its posterior aspect, and a large portion of necrosed bone lay in it, and twisted around this piece of bone was an old ligature thread. The boy did very well, the knee became pretty firm, the limb was quite straight, and he was discharged on April 18 with very little shortening. The wound had not quite healed, and there was still a good deal of thickening about the site of operation. Mr. Bubb, of Cambridge, writes, October 10, a most favourable report, to the effect that he can walk with a stick, all discharge had ceased, and the leg was three inches shorter than the other. "I consider," he says, "the case one of great success." This case is a very interesting one, and by it we are afforded the very practical lesson of not hastily condemning a limb where the operation of excision of the knee has apparently failed. I have had to adopt a second operation in another case, which appeared to be a most lamentable failure, and where, I am sure, most Surgeons would have amputated the limb; but a second operation was followed by excellent results. In one of the most satisfactory instances, so far as ultimate results go, Sir William Fergusson twice repeated the original resection, and a firm, straight, and but slightly shortened limb showed how wise it was not hastily to resort to amputation, even although diseased action came on twice after the original operation. Amputation has, I know, been resorted to in several instances where excision has failed, but, I suspect, in some cases most unnecessarily. At all events, the limb should not be removed until the parts concerned in the original operation have been carefully examined by an exploratory incision. If it be then found needful to amputate, the same incision will be found probably to suffice.

Case 5.—W. P., aged 10, admitted under my care in March, 1867. He was a strumous boy, and such a wretched-looking object as to obtain the nickname of Dickens's hero, Smike. Disease had been going on in the left knee for some considerable period; it was contracted, swollen, and very painful, and perfectly useless to him. There were no sinuses, but that elastic condition which indicated degeneration of the synovial membrane. I excised the knee-joint on March 9. Not a bad

symptom occurred, and the boy was dismissed from the Hospital with a straight, firm leg, and able to use it, on May 1. This boy applied to the Hospital in the beginning of September, able to use the limb well, but in consequence of his having been too free with it, some opening had formed in the skin, and some thickening had taken place at the site of the operation. I therefore took him into the Hospital again for a fortnight, and he was discharged, able to use the limb with the utmost facility, the shortening being scarcely perceptible. The anchylosis very firm, but, I believe, fibrous only.

Case 6.—C. M., aged 12, admitted under my care May, 1867. He was a strumous boy, and had suffered from disease of the right knee for a period of four years. Two years previously he was an inmate of one of our largest Hospitals, where amputation was recommended as the only resort. The parents, not consenting to this, took the boy out and sent him to Margate, where he remained for some time without material benefit. He then came under my care, and I found the knee much swollen, elastic, very painful, but no sinus. The limb was contracted to near a right angle, and perfectly useless. I excised the joint on May 19, leaving the half of the epiphysial extremities. There was great thickening and degeneration of the synovial membrane, but no disease of the bones. Several vessels were ligatured during the operation ; but about two hours after, the House-Surgeon was called, and found the boy much blanched, and bleeding freely from the wound, which he was compelled to open. He found one or two vessels bleeding freely, as well as the bone. He tied these, and applied perchloride of iron to the surface of the bone. The boy lay in a critical state for some hours, but he again rallied; and although I was fearful of pyæmia supervening in consequence of his low condition and the presence of a quantity of decomposed blood under the wound, he had no bad symptom ; the wound took to healthy action, the progress towards cure was uninterrupted, and he was discharged from the Hospital August 10 with a straight limb, pretty firm at the knee, and scarcely an inch of shortening. He came to see me at the Hospital in the following month, and in consequence of his making too free with the limb, an abscess had formed in the soft parts, and I therefore had him admitted into the Hospital for a short time to allow the abscess to heal.

These two cases, which you have been able to examine for yourselves, illustrate the great success which in certain instances attend this operation, more especially when the bones are healthy. In the one instance, the patient was dismissed the Hospital within two months from the operation, and in the other within three months. In the latter case it has been seen that the limb was doomed to amputation—what it is now proved would have been a most unnecessary and cruel operation, and I may mention that the Surgeon who advised it was one of the most strenuous opponents to excision. I leave it to yourselves to judge which was the best proceeding for the boy, and which would redound most highly to the credit of Surgery.

(To be continued.)

ON THE TREATMENT OF TYPHOID FEVER.

By J. BURNEY YEO,

Resident Medical Tutor in King's College, formerly House Surgeon to the Hants County Hospital, and Resident Medical Officer to the Portland-town Dispensary.

Eight years ago, having had opportunities of watching the course and treatment of an unusual number of cases of typhoid fever, I read a paper on this subject before the Medical Society of King's College. Since then I have had further experience of three distinct epidemics of this disease. My present communication on the *treatment* of this form of fever was suggested to me by a conversation with my friend Mr. J. H. Salter, of Tolleshunt D'Arcy, with reference to the continued progress of this malady in the now notorious village of Terling in Essex. As Mr. Salter has had an opportunity of watching the whole course of this very fatal epidemic, it is to be hoped that he will find time to give the Profession the results of his own experience in the management of these cases.

I should not trouble you with the following remarks if I thought the plan of treatment I am about to describe was that generally followed ; nor should I do so if I were not convinced, by my own experience, that it yields results far more satisfactory than those obtained by any other method with which I am acquainted. I will proceed at once to sketch an outline of the treatment I have of late invariably adopted in the management of these cases, and, when the patient has been seen early, I have never known a single fatal termination.

If the case is seen at its outset, and before diarrhœa has set in, or when the diarrhœa is slight and there is not much abdominal pain, a mild saline purge should be administered—only one—for the purpose of sweeping away the vitiated secretions and any other offending matters that may be lodged in the intestinal canal. This is especially desirable, because I propose, in the subsequent treatment, to endeavour to lock up the bowels completely, for a time. From the administration of the purge till its complete operation the patient should take simply a cooling saline mixture, such as the citrate of potash with the acetate of ammonia. After the action of the purge the characteristic part of this treatment commences.

A solution of chlorine should be made by the action of strong hydrochloric acid on finely powdered chlorate of potash. This is easily done by putting about one drachm of the powdered salt into a pint bottle, and pouring upon it about two drachms of the strong acid. The gas will at once be given off in abundance. The mouth of the bottle should be stopped by the finger, and, after a short time, water added slowly, in small quantities, thoroughly shaking the bottle on each addition. By this process a strong solution of chlorine will be obtained, acidulated with hydrochloric acid. It must be borne in mind that this solution rapidly spoils, and should be prepared fresh at least twice a day, owing to the tendency of the chlorine to combine with hydrogen and reconstitute hydrochloric acid. It must also be kept in the dark. This acid mixture is to be given the patient very freely—one or two tablespoonfuls every half-hour, or oftener. It may be sweetened with a little syrup.

Let me explain what I believe to be the action of this remedy.

During an attack of typhoid fever, we must regard the whole of the intestinal canal as a long sewer, into which the morbid offending material present in the circulating fluids is constantly being poured. For reasons which I will directly explain, we must not attempt to get rid of this sewage matter by driving it out of the body; we must even go so far as to check or arrest the natural efforts made for its expulsion. There is but one thing left for us to do—if we shut up these morbid products in the intestines, we must strive to render them innocuous. In short, we must disinfect our sewer. By the constant administration of a strong solution of chlorine by the mouth this purpose is, I believe, effected. Much of the solution, no doubt, gets absorbed by the vessels of the stomach, and enters the blood directly; but much also must get intimately mixed with the food, and the food becomes so thoroughly impregnated with it that sufficient of the solution is carried along the alimentary canal to serve the purpose we have in view. If I had cases of this fever under my care at present, I should carry this principle still further, and I would inject into the intestines solutions of chlorine or weak solutions of carbolic acid in water.

The excess of hydrochloric acid in the mixture acts as a tonic and refrigerant, and assists in keeping up the powers of the system. It is often remarkable to observe how rapidly the tongue cleans, when this remedy is taken, long before the other general symptoms of fever give way; as though it exerted, primarily, a cleansing action on the whole alimentary mucous membrane.

We know that the essential morbid phenomenon associated with typhoid fever is a congested and inflammatory condition of a portion of the intestinal mucous membrane—that portion where the so-called glands of Peyer are situated. We also know that one of the chief dangers resulting from this disease is due to this inflammation in Peyer's patches proceeding to ulceration and consequent hæmorrhage. The occurrence of this active and inflamed condition of the lower part of the ileum is manifested by the early onset of diarrhœa, and by great tenderness on pressure over the corresponding part of the abdominal walls. This inflammation, and this diarrhœa, are doubtless evidences of an attempt on the part of the system to throw off from the blood a morbid material which is present in it. On this account we are recommended by some Physicians to try and assist nature in her eliminative efforts. I believe it to be our duty to do precisely the opposite of this—viz., to strive to moderate and lessen this eliminative action. To keep it under control. It is this very process of elimination, as much as, or even more than, the presence of the poison in the blood, which produces the fatal result.

If we can, by any means in our power, arrest peristaltic action in the bowels, and keep them perfectly at rest, the

elimination will still go on, slowly no doubt, but safely; and while we keep the intestinal canal purified by disinfectants, the poisonous material thrown out into the general sewer of the system will be just as harmless as if it were out of the body; whereas, if the increased activity of the intestinal mucous membrane be not arrested or modified, the eliminative process goes on with fatal rapidity, portions of the mucous membrane become ulcerated and destroyed, and diarrhœa and hæmorrhage from the bowel reduce the patient's strength to so great an extent, that he is no longer equal to struggle with the depressing influence of the poison in his blood. Or the poison may be eliminated, but in the very process of rapid elimination the vital powers of the patient are so severely taxed, that death is the inevitable issue. Elimination has been effected, but it has been effected at the cost of the patient's life.

In every case of typhoid fever, then, it is our duty to modify or arrest the increased activity of the intestinal mucous membrane. How is this to be done? In two ways. First, by the constant application of counter-irritants to the abdominal surface: not a mustard plaster once or twice a day—this is of little use—but hot flannels soaked in warm turpentine should be kept constantly applied. Secondly, by the administration of enemata, of which I have found the following by far the most efficacious. The enema which I invariably prescribe for this purpose consists of (according to the age of the patient) from two to ten grains of Dover's powder, and from five to thirty grains of tannin, mixed with an ounce or two of mucilage. This is thrown into the bowel after each loose discharge, diminishing, of course, the quantity of Dover's powder if the injections have to be given more frequently than three times daily.

But it may be asked—What advantage is there in this particular form of enema? I will endeavour to explain. In the first place, there is the opium in the Dover's powder; this drug, I believe, acts much more satisfactorily, in these cases, when it is administered by the bowel, than when taken into the stomach, and I also consider that it acts better in the solid form than when in solution. If opium be thrown into the bowel in the form of powder, it is absorbed slowly by the intestinal veins; as it flows through these vessels towards the general circulation, I believe it exerts a calmative influence over the abdominal sympathetic nervous system, in a different and more direct manner, than it does when taken into the system in any other way, and it therefore also exerts a more soothing effect on the excited intestinal mucous membrane. And opium in powder is to be preferred to opium in solution for the following reason. I had often observed that the administration of an enema containing a full dose of laudanum, in these cases of typhoid fever, appeared to exercise a rapidly injurious effect on the central organs of the nervous system, and in one or two cases it appeared to have induced fatal coma. The slow and gradual absorption of the powdered drug proves a safeguard against such untoward accidents.

But we must not forget that we have another important ingredient in Dover's powder, and that is ipecacuanha. What is the action of this drug? "It retards the peristaltic action of the intestines, and lessens the secretions from the mucous membrane." (Aitken.) Lastly, as to the tannin; it is one of the best, perhaps the very best, astringent remedies we possess, and, in giving it in the form of an enema, you administer it in the most direct manner possible.

As to the use of stimulants, so far as my observations have gone, they should not be given in the early stages of the fever, or given only in small quantity—keep them as a reserve. Scarcely a case occurs in which they will not be needed at some period of its course. But in giving large quantities of stimulants early in the disease, you not only influence, I believe injuriously, the course of the fever, but you exhaust a powerful restorative means which you will miss in a later stage of the case. Stimulants are especially valuable in the congestion of the lungs which so constantly accompanies the later stages of typhoid fever.

There are, of course, many details of treatment to which I have not alluded here—such as sponging the patient with vinegar and water, removing the patient from one bed to another so that he changes the fever atmosphere surrounding his body twice at least in the twenty-four hours, etc. With regard to the best means of dealing with the evacuations from the bowels, with the view of checking the spread of the disease, I imagine a bed-pan, constructed to contain conveniently a portion of fresh dry earth, which should be constantly renewed and buried after each evacuation, will prove most efficacious.

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PRISON DIETARIES IN SCOTLAND.

By J. B. THOMSON, F.R.C.S.E.,
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My attention has been directed to an article entitled "Prison Dietaries" in the *Medical Times and Gazette* of December 21, 1867, being a *résumé* of a report by Professor Christison and myself appended to the "Twenty-seventh Report on Prisons in Scotland." This joint report was called for by the Secretary of State for the Home Department, in order to have our opinion on the best dietary table for the several classes of prisoners in Scotland, taking into consideration whatever instructions might be derived from the recent proceedings in England relative to prison dietaries. In your comment on this dietary report you observe that this subject is engaging the attention of Government and of the public press, and therefore I offer the following observations as the result of ten years' experience in the General Prison for Scotland, and which appear to me applicable also to the adjustment of English dietary scales for prisoners.

In the report on the prison dietaries for Scotland, the reporters observe that oatmeal and milk form the most important part of our Scottish dietaries, and make them essentially different from those of England in cheapness and nutritive value. We attach especial importance to milk, which we believe to lie at the foundation of the success of our dietaries; and the object of this paper is to establish the *value of milk* as a sufficient substitute for butchers' meat, of which the writer in the *Medical Times and Gazette* seems to be sceptical. I shall quote the words used by him:—"The employment of milk justifies, in Dr. Christison's opinion, the authorities in dispensing with butchers' meat, which, of course, is much more expensive. How far this is true in practice is, it seems to us, as yet a problem; but for the present we accept Dr. Christison's view of the matter." Afterwards is given, with a query, the following quotation from our report:—"Milk which contains largely the nutriment of animal food is our substitute for meat, and is found nutritious enough for all prisoners whose sentences do not extend beyond twenty-four (?) months." In order to remove the doubts stated above as to the problem remaining unsolved, and to answer the (?) in the last quotation, I shall state facts which have long ago established the *value of milk* as a substitute for butchers' meat in our Scottish prisons, and applicable to prisoners whose sentences do not extend beyond twenty-four months.

The General Prison for Scotland receives all prisoners sentenced to nine months' imprisonment and upwards; and since the improved dietaries sanctioned by the Secretary of State in 1854, the following has been the table of dietary for all adult male prisoners under sentence of nine and not exceeding twenty-four months:—

Weekly Food	Ounces.	Nutritive Values. Nitrogenous.	Carbonaceous.	Mineral.	Total	Cost. s.	d.
Bread	84	6·8	38·2	1·2	46·2	0	7
Oatmeal	98	15·6	66·6	2·9	85·1	0	8½
Barley	28	2·2	21·2	0·2	23·6	0	1½
Estimated in Soup:							
Meat	7	1·3	0·9	0·1	2·3	0	1½
Succulent Vegetables	5	—	0·6	—	0·6	0	0½
Skimmed or Butter Milk	140	5·6	8·5	1·0	15·1	0	3½
		31·5	136·0	5·4	172·9	1	11½

Fish is substituted for broth or soup on Fridays, which adds about 1d. to the above rate.

The following shows the daily allowances of the above dietary:—

Breakfast.	Dinner.	Supper.
8 oz. of oatmeal made into porridge, with ¾ pint of milk.	2 pints of barley broth, with 12 oz. of wheaten bread; or, 2½ lb. of potatoes, with ¾ pint of milk, and 8 oz. of wheaten bread.	2 lb. of potatoes, with ½ pint of milk; or, 6 oz. of oatmeal made into porridge, with ½ pint of milk.

This being the established dietary in use since 1854, there has been ample time and opportunity to test its success, and this I proceed to establish by what has been considered unquestionable evidence. The health of this as of all the classes of prisoners since that dietary was introduced has been uniformly good according to my experience as resident Surgeon for now ten years.

The weighing of prisoners on admission and at liberation has been regularly carried out for many years here, and the weights have always been looked upon as important indications of the conditions of prisoners. One of the best tests of an adequate dietary yet discovered seems the fact that prisoners gain or maintain weight. In Scottish prisons due attention is paid to other tests of healthiness; but a dietary followed by general loss of weight in numbers of prisoners has always been attended in the course of time with a lowering of the physical condition, increased ill health, and even positive epidemic diseases if long continued. Such were our experiences before 1854.

Of the male adult prisoners of whom we are speaking 88 per cent. are found to gain or maintain weight, the highest average of any classes of prisoners in the General Prison. No diseases can be traced by me to this rate of dietary; no scurvy, scrofula, or diarrhœa, which often indicate a defective dietary when appearing among numbers in a large body of men. The average daily numbers of the inmates of this prison is about 700. The number annually admitted exceeds 1000 of different classes.

The amount of disease is less in the class of prisoners under consideration than in longer sentenced prisoners, who have a higher rate of dietary, and the death-rate is lower. The death-rate of the prisoners of this prison for the last twenty years has averaged about 14 per 1000.

In order to confirm these views of the value of milk as a sufficient substitute for butcher's meat, let me draw your attention to the mode of living of our Scotish agricultural labourers. In the Sixth Report of the Medical Officer of the Privy Council, Dr. Edward Smith affords testimony to show that the dietary of our Scottish agricultural labourers is without almost any butcher's meat, and composed of oatmeal and milk. In the western highlands of Scotland the dietary is oatmeal, 14 lb. per week, and milk (sweet or new milk) one Scotch pint daily, equal to three English pints. In some districts there is voluntarily given, in good years, a boll or two of potatoes, and in hill districts a share of braxy (lambs and sheep found dead)—a valuable addition. This was very much like the Irish mode of living until the potato failure, when the surplus and refuse of the potato fed a pig; which is now foregone. My own observation among the peasantry of Scotland agrees with this statement, that milk and meal are their regular diet. Not long ago a case came up in the form of a complaint from ploughmen *versus* Mr. Henry Rodgie, Williamston Farm, pleading for 16 gills new milk on the ground "that this quantity was essential for their maintenance in order to their giving the required return in labour" Extensive evidence was led from the large county of Perth before the sheriff, to show that the accustomed allowance for farm servants was—oatmeal 17½ lb. per week, and new milk a Scotch pint or 12 gills daily. Experience as well as scientific analysis have proved that such a dietary is quite adequate for the hardworking farm population, and equal, I should say superior, in nutritive value to the diet of the strongest outdoor labourers in the three kingdoms. And after all the abuse the Scottish dietary has sustained from English prejudice, it turns out, to the surprise of Englishmen especially, that our Scottish agricultural labourers (without butcher's meat) are the best fed outdoor labourers in the United Kingdom. I give the nutritive value of that dietary according to the analysis of Dr. Lyon Playfair:—

Oatmeal, 17½ lb. per week, gives 40 oz. daily, which contains—	
Nitrogenous principles . .	6·4 oz.
Carboniferous	27·2
Mineral	1·2
Total solid nutriment	34·8
Add to this, new milk 1 pint, 12 gills, daily = 50 oz.	
Nitrogenous	2·00 oz.
Carboniferous	4·05
Mineral	0·35
	6·4
Total daily nutriment in oz.	41·2

I should mention that the custom in Scotland is to give wages in kind, and thereby the farmer is assured that his servants receive adequate supplies, so as to be enabled to endure severe outdoor labour, and so they can. Tried by the dynamometer, Professor Forbes found that the average strength of the full-grown Scot was one-twentieth part greater than that of the full-grown Englishman.

In Ireland, again, it could not be butchers' meat that kept up that vigorous people, but buttermilk or skimmed milk was, and is, their true aliment of an animal sort, the other articles being potatoes and Indian meal.

With these evidences, well known in Scotland for many years, and especially to our prison officials, we are surprised to find them ignored in a return to an address of the Honourable the House of Commons, dated May 20, 1864, for copies of correspondence on prison discipline, and of a report of a committee appointed by the Secretary of State to inquire into the dietaries of county and borough prisons in England. In that document, page 55, we have our excellent national dietary spoken of in the following disparaging terms as "a combination of milk and meal similar to that which is successfully employed to fatten pigs in England." This statement betrays painful ignorance of the subject, and can only be explained by that prejudice which Englishmen learned from Dr. Johnson, the great lexicographer, whose definition of oats is so well known as to be proverbial.

I might extend my proof as to the value and comparative cheapness of our Scottish dietary, especially in milk as compared with butchers' meat; but I hope enough has been said to satisfy you "that the employment of milk justifies the prison authorities in dispensing with butchers' meat; and that this is not an unsolved problem;" and further, that milk isfound nutritious enough for all prisoners whose sentences do not extend beyond twenty-four months—Q.E.D.

If this subject continues to interest the public and the press, I may recur to it, with your leave, in the *Medical Times and Gazette*.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 1, 1868.

MR. LOWE ON MIDDLE-CLASS EDUCATION.

What is the middle class? Does it include all who work for their living except those who receive weekly wages? Or is it, according to the definition adopted by Mr. Lowe in his recent speech at Liverpool, the shopkeeping class? Or what limit shall we assign to it? Because on this limitation obviously depends the whole value of all discussions on so-called middle-class education. The term seems to have become so loose in its application as to be worthless for purposes of argument; and we prefer to call the class of which Mr. Lowe is speaking the shopkeeping class. Anything which affects the character and progress of that section of society must needs interest ourselves; for it is the class which treads on our own skirts; its chief faults are glaring and notorious; and these are the faults from which, if we would have our Profession respected and

honoured, we must, as things are now, by all means keep ourselves clear. Let us see, then, what are the means by which it is proposed to raise the character of the retail tradesman's education; and we can do this the more profitably because in watching the shafts aimed by the speaker we shall see that a large proportion of them fall into another target—namely, the higher education—that which we desire for ourselves.

We have been at some pains to compare the different reports of Mr. Lowe's—if we may call it so without offence—somewhat acrobatic performance, because some of them are obviously faulty, and because some of the things said so far exceed even Mr. Lowe's usual limits of paradox, that we hardly feel sure that the speaker is not poking fun at his audience, and taking a cynical delight in making them applaud fallacy after fallacy, each more daring than the last. But the hearers seem to have taken it all seriously, and we must perforce do the same, assuming that the version which has reached us is correct.

The speaker begins by dividing schools into three classes—first, the primary schools, supported by the State; secondly, the Universities and other high schools, by which are probably meant schools which fit boys for entering the Universities; and, thirdly, those which lie between these two classes, which, therefore, are independent of the State, and do not aim at preparation for the Universities. The "Young Gentlemen's Commercial Academy" is the old type of such establishments; the "College for Young Gentlemen," the newer type; and the so-called middle class or county school, the latest attempt at improvement. It is the teaching in these schools which Mr. Lowe desires to reform. But we must first follow him through his sketch of the education of the higher classes, which he holds up as a thing to be avoided. The higher classes, however, in this case, must include all above the shopkeepers, for their education is all modelled on one type, with greater or less exactness. Greek and Latin are the staple of all schools that profess to give a liberal education. Of the course which represents the most complete education to be obtained in this country—namely, the public school and University course—Mr. Lowe thus speaks:—"The feeling with which the upper classes regard their education is that there are many and grievous wants in it. How do they come by this education? Gentlemen, it is because that, at a time when there really was nothing to learn and nothing to know, a number of foundations were made for the purpose of teaching Latin and Greek, and these foundations exist up to the present day, and attract to them a number of scholars to the public schools. All manner of knowledge, science, language, and literature have come into existence since then; but these foundations, like their original deeds, have remained perfectly immovable." (Laughter, and "Hear, hear.") And the point in which these schools seem to him most deficient—the point in which he himself improved on their practice—is the study of the English language. There is something, then, antagonistic between Latin and Greek and English literature. The system of these schools dates from a dark age, and the newer and fresher growth of English literature has superseded it. Let us study our own language thoroughly, starting from its earliest literary products; let Chaucer and his predecessors supply our groundwork. "No man can imagine, till he has tried, how great is the improvement he can effect in his own mind by the study of our ancient authors, full as they are of obsolete words and idioms." In truth, one can almost imagine that the speaker had forgotten for the moment that Chaucer's writings are brim-full of the spirit of mediæval Oxford, and that it is nothing but his own thorough acquaintance with Greek and Latin that enables him to enjoy fully the literature of the great Elizabethan age. Moreover, with regard to the antagonism between these schools and the growth of English literature, Mr. Lowe has very good reason to know that the oldest of them—Winchester—the first great experiment in national education, was founded by a man of the middle class who had risen by his own abilities; and that a contemporary and personal acquaintance of that man, "at a time when there was really nothing to learn and nothing to know," was Geoffrey Chaucer. Further, it is hardly necessary to call to mind the fact that foundations after the same model multiplied simultaneously and in equal measure with the growth of English literature; and we may be quite sure that all the scholars who were to speak or write their own language with effect in after life, did precisely what Mr. Lowe did—namely, studied it for themselves independently of the laws of the school. It is perfectly needless to suppose that at any time since the foundation of these schools their scholars were cut off from all knowledge of what was being written or had been written in their own tongue; nor can this be the case in any school of average goodness at the present time. No doubt these ancient foundations have tended to keep up the study of Greek and Latin in this country; but that the knowledge of these languages has had any depressing effect on our own, we must decline to believe until we meet with a complete list of those great contributors to English literature who have been ignorant of Latin and Greek. And before we accept the implied statement that the education obtained in those schools is unfavourable to the acquisition of the "knowledge, science, language, and literature" that have come into existence since their foundation, we must clearly see that those who have been taught in them have been at a great and manifest disadvantage in competing with those who have not.

Mr. Lowe next amuses his audience by making fun of the study of the classical languages, both as to the subject matter of the works read in them, and as to their grammar. In the course of these remarks, through which we have not space to follow him, occurs this strange argument:—"Grammar is valued as an exercise for the mind, and because it is supposed to teach men to generalise. But men are by nature prone to generalise foolishly; therefore do not teach them grammar." This is of course merely the substance of what the report attributes to the speaker. But among the amusing sayings with which he illustrates his argument, there is not a word to show that grammar does not teach men to generalise correctly—a point which would occur to ordinary minds as essential to the question. Moral philosophy and history are next disposed of as unsuitable studies for the young, and then we come to the announcement, for which we are by this time not wholly unprepared, that "logic is a most unsatisfactory thing," especially, we might venture to add, after dinner. The speaker has now established, to the satisfaction of his audience, the point that the higher education given in this country is worthless for the classes that receive it; the inference drawn is that it must, *à fortiori*, be worthless for the classes below, and therefore that we cannot improve the shopkeeping class by assimilating their education to it. He next, with commendable boldness, proceeds to build up the structure which is to replace that swept away; and, so far as we can gather from the report, the same materials, in varying measure, are intended to supply both the middle and the higher education. They are to be the modern languages, synthetical mathematics, and the physical sciences. It is quite clear from the context that these are the subjects which Mr. Lowe would allot to those who are intended to study Medicine; and if the disparagement of Greek and Latin which runs throughout the speech means anything, it means that the time spent in learning them is thrown away. "It is not for the youth of the world," we are told, "to dictate to its age, nor for a barbarous age to dictate to a civilised and enlightened one." And modern languages are to be taught by attractive books, such as "the most amusing French novel that can be found," "a story that will give him a little insight into life," and so forth. The use of the language in reading and speaking is to be learnt first, and its grammar afterwards. French, German, and Italian are the languages recommended: the first because "whatever merit may be

found in the classical languages, beauty of expression, polish, and clearness of style, they are found in the best French writers of the present day." The second, because in it the student gets what Mr. Lowe oddly enough calls "the next best thing" to learning Latin and Greek—namely, an acquaintance with the classical writers through the medium of admirable translations; and for Italian no special reason is given. Of course a knowledge of the native literature of the several countries, and the power of conversing in their languages, are amongst the advantages offered, and we need hardly say that we fully appreciate their value. The study of synthetical mathematics requires nothing to recommend it, though one might suppose, from reading Mr. Lowe, that it was a new invention, about which the Greeks knew nothing; and we commend the plan of adding a small portion of science, taught in a scientific way, to all school curricula, especially for such as are intended to prepare the pupil for actual life, and are not to be supplemented by a professional course.

But Mr. Lowe says—"These things are enough: throw Latin and Greek to the dogs." And here is our great point of difference with him. It is perfectly clear that if he is right, then all the efforts made of late years to improve Medical education have been turned in a wrong direction. We have been losing ground, instead of gaining it.

We believe, on the contrary, that we are advancing in the path which is most certain to lead our Profession to that position of honour which it ought to occupy, but which it cannot now successfully claim. We hold that no education can be called liberal which does not include the study of Latin and Greek; and that no profession can hold its own in the front rank of society, unless it secures a thoroughly liberal education to its members.

Latin we hold to be indispensable on these grounds:—First, because it is impossible to have an intelligent appreciation of the literature of the Western languages—French, Italian, Spanish, and the Latin half of English—without it; secondly, because it is the shortest route to even a conversational knowledge of those languages; thirdly, for the sake of its own literature; and fourthly, because it furnishes, or ought to furnish, a common language for scientific men of all countries. We see every day more and more reason to regret the disuse of Latin. But perhaps for this regret we shall be called reactionary and behind the age; though in holding an opinion in defiance of the popular voice, we shall at least secure the sympathy of Mr. Lowe. Let, then, M. Marey, a man undeniably in the van of progress, speak on the present state of the study of Latin (Marey, "Du Mouvement," p. 83):—

"Ajoutons que de nos jours la science ne se forme que par la collaboration de tous les peuples; que chaque jour le besoin se fait plus impérieusement sentir de faire échange d'idées entre nations différentes. Nous regrettons maintenant d'avoir abandonné la langue scientifique de nos pères, le latin, qui établissait une communication facile entre tous les savants du monde. Il faut aujourd'hui consacrer une partie de sa vie à l'étude des langues vivantes, ou se résigner à ne connaître les travaux étrangers que d'une façon sommaire, par les analyses si rares et si incomplètes qu'on en fait chez nous."

If we err, therefore, in desiring the restoration of Latin as a scientific language, we err in good company. As an aid to the knowledge of all that part of our own language which relates to modern ideas and civilisation—science especially—it is impossible to disregard Latin, though, for the study of the primitive and simpler, or Teutonic, part, it is equally impossible to dispense with Anglo-Saxon and German.

With regard to Greek, the necessity for knowing at least as much of it as has filtered through Latin, arises chiefly from the fact that nearly all modern scientific terms are borrowed from it. Give a young lady who can read Goethe and Schiller a German scientific book, and she is utterly helpless. But the chief inducement to learn Greek is the wealth of noble ideas that is encased in it. Perhaps the young shopkeeper may get better views of life from a French novel than he could from any Greek author; but, for our own part, in choosing a guide to an estimate of τὸ ἄριστον, as between Aristotle and Dumas, we should certainly give our vote for the old barbarian. And as to the advantage which a knowledge of these old dead tongues gives to a man among those who are otherwise his equals, who understands it better than Mr. Lowe? Who knows better how to give a sting to his words by dipping them in this old fountain, or to demolish an adversary by retorting upon him his own quotation? And, on the other hand, who is so prone to the misuse of "fine words," almost always imported into English from the dead languages, as the man who knows nothing of Latin or Greek? We have already exceeded our space, or we should like to quote Dr. O. W. Holmes in support of our views.

Mr. Lowe thus sums up the failings of the shopkeeping class—failings which he hopes to remove by the means proposed:—"They want culture, they want refinement, compared with the same classes in other countries. They want elevation of mind, and they want to be taught that money is not the be-all and end-all of life. They want to have their *morale* raised, and their sense of honour developed." These are true and weighty words, and, for the reason given at the beginning of this article, full of interest for ourselves. But has not Mr. Lowe put last that which is the very first requirement of this class? Is not the first thing that must be taught to its youth the meaning of the word "honour?" We have been compelled to omit any notice of the speaker's remarks on the Universities in relation to the middle class; on a future occasion we propose to return to that part of the subject.

THE NIGHTINGALE MEMORIAL AND LYING-IN HOSPITALS.

The closure of the Nightingale Ward in King's College Hospital cannot fail to renew the discussion which has now and again arisen as to the propriety of instituting and maintaining Lying-in Hospitals.

The history of this ward may be told in very few words. Most persons remember the circumstances which led to the subscription of a very large sum of money—from forty to fifty thousand pounds—for the purpose of presenting a memorial to Florence Nightingale. This money was, in accordance with the wishes of Miss Nightingale, disposed of in two ways. An institution for training nurses for general purposes was established in connexion with St. Thomas's Hospital, and a lying-in ward for the training of nurses who were to devote themselves exclusively to midwifery cases, was founded in connexion with King's College Hospital, and a sum of £300 a year was paid to that institution for its maintenance. This ward was opened in the year 1862, and closed at the end of 1867, after an existence of nearly six years.

During this period 781 poor women were admitted and delivered within its walls. Of these 27 died, the death-rate being 1 in 28·9, the rate of mortality in the out-patient maternity department of the same Hospital being 1 in 212! Therefore, as Dr. Priestley observes, "*in all probability the lives of many of these patients would have been spared had they been delivered in their own homes.*"

This is a very sad reflection for the subscribers to the Nightingale Memorial, and it appears to us to be a question whether, with the statistics and general history of Lying-in Hospitals before them, those who had the administration of this fund ought to have consented to its appropriation to what was, at best, a dangerous experiment. But to pass on to the general subject of Lying-in Hospitals. What is it that is charged against them? This—that the rate of mortality in them is necessarily greater than that amongst poor women confined at their own homes. Is this true? After considering carefully all the arguments *pro* and *con*, and after going

over a large body of statistics bearing on this subject, we must admit that, for our own part, we cannot help being convinced of the truth of this charge.

It is asserted by those who advocate the advantages of a maintenance of lying-in Hospitals that the statistics of external maternities are very fallacious; that Hospital pupils deliver women at their homes, and visit them once or twice afterwards, when, if puerperal fever or other serious mischief supervenes, some other Medical man is called in, and although the patients may die, the statistics of the maternity department in connexion with which they were attended does not show the fatal results. This may be, to a limited extent, true, but we cannot believe that it is generally applicable to the external maternities in connexion with our London Hospitals.

Nothing can be easier than for the Physician, who has the direction of the midwifery department of any large Hospital, to require that the pupils who undertake to attend these cases should visit them for eight or ten days after delivery. The occurrence of puerperal fever, and of deaths from any other causes associated with delivery, must then be known in every case, and very accurate statistics for all practical purposes obtained. We have no doubt that this course is adopted in most of our Hospitals.

But in connexion with the history of the Nightingale Ward we have two striking parallel statements—

Mortality amongst in-patients, 1 in 28·9.
Mortality amongst out-patients, 1 in 212.

The mortality during the last year of the existence of the Nightingale Ward was 1 in 13. What was the mortality in the out-patient maternity department of King's College Hospital in the same year? Was it in excess of the average given above? It would be interesting to know from the Hospital authorities if this was the case.

It has been stated generally that the average mortality in all Lying-in Hospitals—those of all the more important cities of Europe—reaches the rate of 1 in 29. This death-rate is sufficiently high to enable us to give a very large margin for inaccuracies in the statistics of home deliveries, and yet maintain the opinion that Lying-in Hospitals, as they are at present conducted, are almost unmixed evils. It is also urged by those favourable to such institutions that, though they may be responsible for some deaths from puerperal fever, yet that this should be made a kind of set-off against the many bad cases which are saved in Lying-in Hospitals, but which would certainly have a fatal result if attended at their own homes. This is strongly insisted on in a very able little pamphlet on this subject by Dr. Atthill, of Dublin, an ex-Assistant-Physician to the Rotunda Hospital. The weakness of this argument is very apparent. In the first place it assumes what can never be proved—viz., that certain cases admitted into Lying-in Hospitals *would certainly have ended fatally* if they had been attended at their own homes. Again, so long as there is no *selection* of cases made in Lying-in Hospitals, it is fairly presumable that no greater proportion of *bad* cases occurs in these institutions than in the homes of the poor. We are therefore reduced to the single alternative of an appeal to statistics, and though possibly some lives may be spared by admission, under very grave circumstances, into Lying-in Hospitals, other lives are undoubtedly lost; and we have simply to strike a balance between the two, and that is unfavourable to the maintenance of these *institutions*.

Notwithstanding that we are deeply impressed with the conviction that the arguments against Lying-in Hospitals, as they at present exist, are unanswerable, yet we are by no means disposed to think that such institutions may not be so constructed and placed in such favourable circumstances that they may be made not only available for teaching the science of obstetrics and training skilful midwifery nurses, but also of great value as charitable institutions.

Many propositions have been put forward with this object in view. The best, to our mind, is the one which advocates the erection of a few small separate buildings or pavilions, each accommodating two or three patients, and built around a central garden, in some airy locality as near the centre of London as possible. Dr. Priestley suggests that "rooms could be built on the pavilion plan outside the Hospital (King's College), or that rooms might be hired on the upper floors of the new houses that would be built in that neighbourhood." But we are inclined to believe, with the experience that is before us, that the immediate neighbourhood of a general Hospital had better be avoided.

We sincerely hope that the trustees of the Nightingale Fund may soon discover some means of giving effect to their good intentions, and that a happier result will crown their charitable efforts.

ARMY MEDICAL SERVICE

We published last week a letter from "One who has Served Thirty Years" in the Army Medical Department, on which we venture to make a few observations.

We do not expect to alter our correspondent's opinion. Impressions which probably had their origin so long ago, and which have flowed on in a steady current, have no doubt by this time deepened into strong convictions. In the article of which he complains we endeavoured to balance the advantages and drawbacks of a Professional career in the public services as compared with civil life. Certain changes had been very recently effected, and the time was therefore a good one for instituting such a comparison. Medical officers hold diverse opinions, and the extreme sections are as wide as the poles asunder. There may be, and there doubtless are, existing defects; but we believed that time, and above all, the introduction of a really good class of men, would work changes and reforms which prolonged agitation could not effect without the risk of inflicting a great injury on the Medical service by lowering the standard of the men seeking to enter it. The army is not a paradise, and official ways are not always the ways of pleasantness and peace, or the road to honour; nor will patient merit or enthusiastic ability always command success. But we find that Poor-law appointments, clubs, and Professional life in small towns with "our grocers" for patients, are not pleasant paths either, nor do they always conduct to much social or pecuniary advancement.

What we said amounted to this—that the army was infinitely preferable to these; that there was a fairer prospect of success before a well educated man in it, and we may add that no other career offers equal chances for obtaining the society of gentlemen and that titular rank and position which many an able gentleman is struggling in vain to procure in civil practice.

But let us take the points *seriatim*.

1. The primary condition of the junior Medical officers our correspondent acknowledges to have been improved, but pronounces it only "the bait to hook the gudgeon." We dare say the authorities would not have given more pay to young men if they could have been obtained for less. No doubt it would have been infinitely better for the pecuniary improvement to have taken place when most needed—viz., on retirement from the service. The junior officers, we hear, confess that they could better dispense with the higher rate of pay at the commencement.

2. The chronic discontent not likely to be decreased by the order recently published incapacitating the Medical officer from sitting on mixed boards.—Surely he regards the point in an inverted light. The decision is really a concession to a Medical officer's *amour propre*. *The military constitution exacts that a combatant shall unconditionally preside at such boards.* It was, then, under these circumstances, more con-

sistent with the dignity of the Medical officers to release them *in toto* from every feeling of inferiority or subordinate position on such occasions.

3. The position at mess.—He must be a very dwarfed intellectual specimen of the department, it is hoped, who could find his position systematically ignored; and as to "public occasions" of mess entertainment, surely no Medical officer could desire to contest the position due to the officer positively commanding the corps in all its responsibilities on the occasion.

4. Medical officers not to be treated as "a class apart," and an inferior one.—If the writer has in his own person experienced such treatment, he has been, to say the least, unfortunate, and cannot have done himself justice.

5. Honours.—"True that V.C.'s have been earned and bestowed in common with the private soldiers." We would simply remark, the more noble through this very association.

The K.C.B.'s.—"The reluctance to bestow them at all on Doctors."

It must be acknowledged that so large and distinctive a department, upon whose very services the effective belligerent powers of an army in no small degree depend, are, in regard to the honours of the Bath, treated to a very beggarly proportion. This is a question, indeed, for those who have the power to be generous and to deal equal justice to all branches of the military service. For our own part, we should not value honours conferred in deference to newspaper clamour and discussion. If they were not given as a recognition of individual merit, or as a mark of respect to the department, if we had happened to occupy an elevated position in it, they would be valueless.

To conclude, we cannot avoid recognising that the English nation is very different from others in respect to the position of its Medical department in relation to the other branches of the service. In America—and it will soon be the same in Russia—the Medical department is a separate corps, as distinct as the Royal Engineers, invested with full power and authority over all that concerns itself, the line of responsibility running upwards from the junior assistant to the senior Surgeon, to end in the Director-General, who is responsible to the general commanding or the Commander-in-Chief. But this involves a remodelling of the department and the destruction of the regimental system as at present established. Were we to advance an opinion one way or the other as to the expediency of this, we should be sure to displease a large section.

THE WEEK.

TOPICS OF THE DAY.

The dignity of the Coroner's court in the metropolitan districts has received a rude shock from no less powerful a person than the Home Secretary. Dr. Lankester, on requesting Mr. Gathorne Hardy to order the police to produce a woman accused of infanticide before himself and the jury investigating the cause of the death of her child, received an answer from the Home Office to the effect that the Home Secretary has no legal power to give such orders, and that, now and for the future, Mr. Hardy must decline doing it. The coroner's jury expressed great dissatisfaction at this decision, and Dr. Lankester hoped that the question would be brought before Parliament at an early date. Now, as far as precedent is concerned in the matter, it seems that the practice of producing the accused before the Coroner's court has been hitherto confined to the metropolitan districts, and that even here it has only been revived since the introduction of stipendiary magistrates and justices of the peace. With regard to the rights of the case, it appears only fair that an accused person should be permitted to attend at a tribunal which has the power publicly to affix on him the gravest charges. It is contrary to the fair character of English law to receive evidence against a person and publish a verdict of "guilty" behind his back. On the other hand, whatever may be the legal position of the Home Secretary in the matter, it is clear that it might often be dangerous, and would be undoubtedly inconvenient, to produce a dangerous criminal before a Coroner's jury, considering the places in which Coroners' courts are held, and the mode in which they are conducted. The fact is that the Coroner's court, if it is to be of real use, requires considerable reform. The rules of evidence which obtain in higher courts should be more carefully observed. The court should be held in each district in a suitable building provided for the purpose, and its external arrangements should not be so entirely under the direction and superintendence of the parish beadle.

We do not know whether it will be satisfactory to Mr. Lowe and the new education prophets to learn that the British youth evince a growing repugnance to any and all of the systems of education which benighted England has hitherto held to be essential to the character of gentlemen. Facts seem, however, to prove it. For instance, at the last Preliminary Examination at Apothecaries' Hall, out of thirty-five candidates seventeen, or one-half, were rejected in Latin, English, arithmetic, and elementary mathematics. The fact is either that lads are worse educated than formerly—that many more things are taught, but much fewer learned—an opinion to which we confess we incline—or that the new system of universal examination which has taken possession of society brings out the shortcomings of schoolmasters and pupils in a light for which paterfamilias, who has paid his school bills with exemplary regularity, was but little prepared.

A paragraph has been going the round of the papers to the effect that the Court of Assistants of the Apothecaries' Society have determined on admitting women to the Arts Examination at the Hall. If this be the case—though, we believe, there has been no official announcement of the fact—we have good grounds for stating that the Court of Assistants have come to this conclusion on legal advice as to the powers vested in them by Act of Parliament, which, the lawyers contend, gives them no option in the case. But this does not in any degree invalidate the position of the Court of Examiners in Medicine with regard to the admission of women. By their law that no certificates of lectures or dissections, except those publicly delivered and performed in the recognised Schools of Medicine, can be received as qualifying for examination, they intend deliberately to shut the door against any further female intrusion into the Medical Profession through the portals of the Hall. We may add that the Court of Examiners look to all gentlemen who are professors and teachers of anatomy, and to all gentlemen who are studying the Profession of Medicine in our public schools, to enforce the very wholesome rule they have made.

Mr. George Howard Darwin, of Trinity College, who has obtained the place of Second Wrangler in the Cambridge mathematical list this year, is the second son of Mr. Charles Darwin, the naturalist, and, we believe, the lineal descendant of Dr. Darwin, the author of the "Zoonomia."

A correspondent informs us that an old gentleman named Musgrove, of Bramley, near Leeds, has left a large sum of money to a gentleman, on condition that he adds the name of Musgrove to his own, and that he pays to the trustees of the Leeds Infirmary £10,000; to the Eye and Ear Infirmary, £10,000; to the Leeds Fever Hospital, £10,000; and to the Bradford Infirmary, £10,000. With the latter institution the testator endeavoured to drive a hard bargain. Being above 80 years of age, and having no use for £10,000, he offered to give it to the Bradford Infirmary provided the trustees of the institution would pay him 10 per cent. for it during his life! The trustees very wisely refused, and perhaps were thought better of by the millionnaire for so doing, for he left the Bradford, as the other Hospitals mentioned, to be benefited by his legatee. This is what people call charity!

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We draw our readers' attention to the account which we publish to-day of a remarkable epidemic of ophthalmic disease in Dublin, and for which they are indebted to the celebrated Dublin Surgeon Sir W. Wilde.

The St. Andrews Medical Graduates' Association intend holding a general session in London on April 8. The subject proposed for discussion is to be, "What should be the Legal Definition of Insanity?"—a very good one, as far as the exercise of discussion goes, without doubt; but would it not be better first to fix on some Medical definition of insanity which Doctors will all receive, before we suggest to the lawyers to adopt from a body of Medical men a legal one?

Most of our readers will agree with us that the manly and plain-spoken letter of Dr. Eastlake, which we publish in this week's *Medical Times and Gazette*, deserves serious attention. Amongst the numerous considerations which it raises, not the least important is one concerning the responsibility of Physician-accoucheurs. Let us suppose a Physician called in to a woman who had been some hours in labour, for the purpose of instrumental delivery. How is his reputation to be safe, if a midwife, either before his visit or after, is surreptitiously to "put on" the forceps, or attempt turning? Without something like honour amongst Practitioners and discipline amongst subordinates, all such practice as that of a consulting accoucheur must involve a terrible responsibility. We forbear further comment this week, remembering the wholesome maxim that it is right to hear both sides.

We should be failing in duty to our readers did we not remind them of the hippophagic banquet, which is arranged for February 6, at the Langham Hotel. We understand that a first-rate French dinner, with every appropriate wine, may be expected.

We hear of a new sect calling themselves by the alliterative title of Peculiar People. One of their leading tenets seems to be to abjure all Medical aid in the cure of disease, and to trust to the exercise of those powers of healing which the orthodox hold distinguished the Church in apostolic times. The original followers of Irving, we believe, held the same doctrine, which they based on a literal interpretation of a text in the Epistle of St. James. The right of persons to withhold Medical aid from others in sickness upon a religious plea ought certainly not to be admitted by the law of England. A fanatic may refuse to see a Doctor himself, but he has no right to condemn his children to die without assistance. A case of the kind has just been investigated by the City Coroner. One of the Peculiar People, named Wagstaffe, had a little daughter who fell sick. Instead of the Doctor the elders of the sect were sent for, and the child was anointed and prayed over. No remedy was given beyond a little brandy-and-water and plenty of nourishment. In process of time the child died. An inquest was held; a Medical man deposed that under proper treatment the child would probably have recovered; by the direction of the Coroner the jury returned a verdict of manslaughter against the parents, and the case stands over to be investigated at the Central Criminal Court. One of the women belonging to the Peculiar People was asked by a juryman if she would not send for a Doctor if she broke her leg. The Scripture says, "Not a bone of the righteous shall be broken," was the clinching reply—a comforting reflection for the rest of mankind whose bones are proved to be subject to ordinary physical forces.

Since the above was in type, the case of the Wagstaffes has been tried before Mr. Justice Willes at the Central Criminal Court. The jury returned a verdict of "Not Guilty," but added that the parents were liable to censure for not calling in Medical advice. The evidence proved that the conduct of the parents was entirely the result of their religious fanaticism, and that in all other respects the child was carefully watched, tended, and nourished. We cannot express ourselves entirely satisfied with the result of the trial, which, it appears to us, was a miscarriage of justice. A verdict of "Guilty," and some sentence, however nominal, would have given a wholesome check to practices which, although they may have their rise entirely in mistaken religious feeling, certainly involve, as in the case of the Wagstaffes' child, an unjustifiable neglect of those means of saving life which the Creator has given to man, and a consequent loss and injury to society. The termination of the trial, however, we believe, was mainly brought about by a summing-up from the judge which reads like the *ad captandum* one-sided address of a special pleader, and, we are sorry to add, by some singularly dogmatic and, as it seems to us, unjustifiable evidence given by the Surgeon who made the post-mortem examination. This gentleman, who, it must be remembered, never saw the child during life, said that the post-mortem revealed inflammation of the lungs on both sides. He stated that the child ought to have been leeched and have taken antimonial wine, that brandy-and-water would certainly do no good, and that port wine would not be proper, and that he would not have administered stimulants. Now, to say nothing of the present controversy as to the best mode of treating inflammation, it appears to us that Mr. Donoghue stepped out of his province when he offered the jury a plan of treatment for a case he had not seen until after death. Surely it would have been enough for him to have said that the child died from inflammation of the lungs, and that Medical treatment would have benefited it. This weak point in the case was at once seized on by Mr. Justice Willes, who said that "it was notorious that the Medical Profession differed very much as to the treatment of lung disease." For the rest, the judge's summing-up was an argument founded on the precedents (!) of the Royal touch for scrofula, and the practice prevalent in Roman Catholic countries of taking sick people to the shrines of saints. We suppose Mr. Justice Willes would not now quote the burning of witches as a legal precedent, although the custom went out about the same time as the Royal touch. With regard to the practices referred to in the Roman Catholic Church, we believe they are always tried as a last resort after medicine has failed. There was something, we think, offensively indecorous in the judge terminating his argument by reading to the jury the text from St. James's Epistle referring to the miraculous powers possessed by the early church.

We regret to observe that Professor Owen has been prevented, by a sudden attack of illness, from fulfilling an engagement to lecture at the Leamington Philosophical Society.

We hear that the authorities of King's College Hospital contemplate certain alterations in the Medical staff. We believe that it is proposed to make two of the appointments of Assistant-Physician permanent, and to elect a Medical officer to the care of a department for skin diseases. With regard to the former part of the scheme, we shall have, if it be carried out, to congratulate the authorities on a step backwards in the right direction. It is never too late to mend.

THE FEVER AT TERLING.

We are glad to be able to give a more favourable report of the health of Terling than we were last week. Some of Mr. Haviland's suggestions are at last being carried out, and there seems to be now a dawn of a better state of things. We rejoice to find that two Sisters of Mercy have arrived from East Grinstead, who daily make house-to-house visitations, and see that the instructions of the Medical men are carried out; they also superintend the administration of the nourishment, which now, through their judicious management, is taken at proper times and in regulated quantities. The schoolroom has been converted into a convalescent hospital for the children, at the expense of Lord Rayleigh. Notices have also been served on the owners of property to make proper water-

closets, etc. A pure spring of water has been discovered, and is conducted into a reservoir near the inn for the use of the inhabitants. On Mr. Haviland recommending the use of Mr. Norton's patent tube well, he found that Messrs. Emerson, Walker, and Co., the agents for the counties of Kent and Essex, had already despatched their manager to Terling to drive a well for Lord Rayleigh. It will be remembered that this American invention has been supplied in large numbers to the troops forming the expedition to Abyssinia, and that it was the means of supplying the Northern army, during the late American war, with an unfailing supply of water. We heartily hope it may prove successful at Terling; should it do so, the invention will indeed be a great boon where an immediate and temporary supply of water is suddenly demanded, as in the present instance. The epidemic does not seem quite so intense as it was last week, although there are still seven or eight cases which in all human probability will terminate fatally. The remainder, it is hoped, may recover. We are informed that it was one of the underservants, and not the housekeeper at Terling-place, that was not expected to survive on the 11th inst. Up to the present date there have been twenty-eight deaths from typhoid fever since its outbreak in December—an amount of mortality that would have startled the country had it occurred from the neglect of an engine-driver or a manager of a colliery; but since it is the result of the culpable neglect of the local authorities, the bodies are buried day after day without inquiry, and those whose duty it was to have watched over the welfare of this poor and ignorant community, and have averted the calamity, hide themselves from well-merited censure under the ægis of irresponsibility.

We have just been informed by Mr. Bartholomew, the manager for Messrs. Emerson and Walker, that he has succeeded to his entire satisfaction in sinking the patent tube well at Terling. After a few hours water was obtained at a depth of sixteen feet. A man was pumping the whole of Wednesday in order to clear away the soil, and it is confidently expected that the water will be fit for drinking purposes at once.

MUCKERISM IN MARYLEBONE.

We have received the following curious communication from a well-known Physician:—

"I was much interested in your notice of Hepworth Dixon's new book, as illustrating certain forms of epidemic hysteria, combined with insane notions on the relation of the sexes. It may be worth putting on record that an attempt was made in London a few years since to introduce one of these insane-religious-sexual epidemics, if I may use such a compound word. In November, 1859, my eye was caught by a placard at the door of the Marylebone Institute, in Edwards-street, announcing a Lecture on Prophecy, with the further notice that it was intended for men only. Anticipating something curious, from my knowledge of the way in which odd notions about sex have at times gone hand in hand with unbridled religious enthusiasm, I attended the lecture, and found the room scantily occupied by respectable-looking young men. The lecturer, a very grave-looking person with an American cast of features, began with topics such as are to be found abundantly in the works of Cumming, Molyneux, Seisse, and other Millenarian writers. He said that the Christian might be expected to be equal in duration to the Jewish dispensation, and gave sundry reasons, which I find in my notes, but need not transcribe, why it was not likely to last fifty years longer. He then spoke at great length on the moral and religious evils of the times, for which existing systems of theology, he said, offered no remedy, and dwelt on the necessity for fuller study of Scripture—and so on for more than an hour, with copious Scriptural quotations, enough to lull the suspicions of any auditor. At last he pointed out the need of further inspiration, spoke of the long time that had elapsed since any had been vouchsafed to us, and affirmed that it was withheld by our conduct, and that our violation of the law of purity was the obstacle to a fuller communion with the Divine mind. Well, so far there seemed nothing strange. Then he went on to denounce the lust of concupiscence as the root of all evil; and to this, supposing he meant a friendly warning to the young men present against the 'social evil,' no one made any objection. By degrees, however, his denunciations against sexual intercourse became so vehement and outspoken, that one of the audience rose, and begged him to explain whether he denounced *all* sexual intercourse, including that of man and wife, or only the irregular and vicious. Then he came out in his true colours. Sexual intercourse under any conditions was a crime; it perpetuated every evil, and kept back the Spirit of God from the earth. Here there was a general stir in the audience, and the lecture was brought to a close, with a promise that the subject should be gone on with on the next occasion. Being myself cognisant of the gravity of this attempt to revive a Manichean doctrine, and filled with curiosity as to the extent of the lecturer's delusions, I mounted the platform, and asked him what was the use of a doctrine that would leave the earth without population? 'Oh!' said he, 'that by no means follows.' 'But how so,' I rejoined, 'if not even husband and wife are to beget children?' 'There will be plenty of children,' he replied, with a smile. 'But how?' 'When purity and spirituality reign in man's heart,' he said, 'all he need do will be to "announce" to his wife that he desires her to have a child, and conception will follow.' He illustrated this by an example, which I forbear to quote. Seeing that a good many of the young men in the room evidently were struck with the matter laid before them, and knowing how much mischief and scandal have in times past arisen from the teaching of one such madman, I put myself in communication with the clergyman of the district, the Rev. T. Lumsden, lately deceased, and by his representations the Marylebone Institute was closed against further lectures. All history teaches that people who begin by being too pure for any sexual idea, may too often end in the most unbridled lasciviousness."

We think our correspondent did good service in thus stamping out the first spark of what might have been an epidemic insanity.

ONE THEORY OF "MYSTERIOUS DISAPPEARANCES."

The papers during the last fortnight have contained paragraphs relating to the "mysterious disappearance" of a gentleman in good health, who left his lodgings one afternoon and has not been heard of since. It is said that another gentleman, a claimant of some estates in the North, has also suddenly been missed, to the great grief and wonder of his friends. Whether the following narrative by one of our contributors will suggest a theory applicable to either case we know not:—

"Some years ago," says our friend, "I was roused early one morning by a message from the wife of a solicitor, whom I numbered among my patients, inquiring whether I knew anything of her husband, as he had been absent all night, and they could get no trace of him, to their great alarm. I dressed hastily and went to the house, and shall not soon forget the haggard countenance of the poor wife as she greeted me. The husband, a solicitor of only too great notoriety from his connexion with certain *causes célèbres* of that day, had been for weeks in a state of the greatest harass and anxiety, and, in fact, was under my care in consequence. The previous day he had left home after breakfast to make an affidavit at a public office in Chancery-lane, and had not returned since. His absence was not particularly noticed till evening came on, when, of course, all business places were closed, and he ought to have come home to dinner. By-and-by the wife became alarmed, and spent the evening and greater part of the night in rushing about and sending to every place where she thought she might get tidings of him; but in vain. She learned from a legal friend that he had left Chancery-lane in the middle of the day, and there all trace of him vanished. The police were sent to, the Hospitals inquired at, the railway stations visited, and all friends at whose house it was thought he might be heard of, but to no purpose. I could give no clue. Yet it so happened that a couple of hours afterwards I met the much-sought-for man myself. I was walking up Davies-street, and as I was passing Hooper's shop could not help noticing a dirty slovenly-looking man, walking with a strange vacillating gait, just in front of me. As I came abreast of him, his likeness to the lost solicitor was striking; but then he was one of the neatest of men, who knew me well,

while this was a most untidy figure, who looked vacantly at me, and evidently knew me not. However, I walked side by side up so far as Sir James Clark's, and then accosted him by name, and asked him why he was walking there. His face, however, was a perfect blank, so far as intelligence was concerned, and he muttered a few incoherent sentences, and resisted my efforts to take his arm and turn his steps homeward. However, by the time we reached Oxford-street I hailed a passing cab, and, with the aid of a policeman, got the poor fellow into it, and took him home. He was quite unable to raise himself to the seat of the cab when he got in, and had to be lifted out and carried upstairs. I need not say that he lay in a state of utter bodily prostration for many weeks, with mental faculties almost a blank. However, he did recover partially after a time, and was able to give some account of himself. He said that he was intensely worried and exasperated at the office he had been to, and that, making some excuse, he went out, leaving the affidavit unfinished, intending to go home. But he fell, as it were, into a dream. He lost himself; he cannot tell exactly where he wandered all that afternoon and night, but he believed that he had been going round and round and about within half a mile of his own house. He was perfectly certain that he had passed his own door twice in the course of the night, but, tired and hungry as he was, it never occurred to him that he ought to go in. He could not help noticing, he said, that the gas was alight over the street-door, and he wondered why this should be!"

FROM ABROAD.—MEDICAL RESPONSIBILITY—REGISTRATION OF BIRTHS IN FRANCE.

Among the useful functions performed by Medical journals certainly must be reckoned the "advice gratis" they are accustomed to give in reply to applications addressed to them by their subscribers. The *Union Médicale* has long established an editorial committee, by which all knotty points are well weighed and deliberated by very competent persons, associating legal opinions when required. The assistance thus rendered is sometimes very considerable, and the aid of this little consultative tribunal is often called into request. A distinguished provincial Practitioner, in large practice, and Surgeon to a Hospital, has just consulted it on the old question of Medical responsibility, in consequence of a vexatious action that has been brought against him. As far back as 1861 he practised venesection on a lady, 35 years of age, who was six months gone with child, in consequence of some symptoms of congestion that were present. The bleeding was performed with the usual precautions, and for four days all went on well. During several hours of that day, however, the patient was employed in arranging linen in her drawers, and in the evening she was seized with shivering, and with pain radiating from the puncture in the arm. The Surgeon when called to her recognised the imminence of phlebitis. In spite of treatment this pursued its course, became adhesive, and led to atrophy of the limb. Seven years and a half afterwards the patient brings her action, laying her damages at 15,000 francs. The mere narration of the facts shows the emptiness of the charge; but nevertheless a man of the highest eminence in the Profession is put upon his defence in so ridiculous a matter, and has to incur all the loss of time, anxiety, and expense of a civil procedure, to prove—what? That venesection, however skilfully performed, may yet be followed by accidents which it is impossible either to foresee or to prevent. The editorial committee consulted by their *confrère* on the case can, of course, do nothing to mitigate the annoyances to which he has been subjected beyond an expression of sympathy, and contents itself with stating with precision what is the present French law on Medical responsibility, as determined by important decisions in *Cassation* in 1835 and 1862:—

"No one now seeks for absolute Medical irresponsibility, whatever some publicists may say little versed in our Professional questions. Practitioners know that they are men, and consequently fallible, and that they are citizens, and consequently subject to the same laws that govern other citizens. What they do demand is the intelligent and equitable application of the principles of the common right, so that no Practitioner be rendered responsible save in the case, to use the words of the decisions, of *faute lourde*, *erreur grossière*, *ignorance crasse*, *négligence coupable*, and *abandon du malade*. What Practitioners demand, and what the tribunals are more and more disposed spontaneously to call for, is, that the determination of Medical culpability shall be effected by competent experts—by Physicians or Medical societies and associations—since the Medical Profession has a sufficiently high sense of social and Professional duty to enable it to enlighten justice under all circumstances. Beyond such conditions there would only be, on the one hand, demands for an impossible claim of irresponsibility and infallibility, and, on the other, incomplete appreciation and the possibility of erroneous judgments."

There are some people who are always thrusting into our notice the superior "administrative measures," whether military or civil, of the French and other "well-governed" nations; but some of these on investigation are not found to be so thoroughly appreciated by those who come under their operation. We believe, if the Medical officers of the French army were questioned as to the operation of the so lauded "intendance" system, their replies would be found rather damaging; and there is now a little matter before the Academy of Medicine which has long been agitated without producing any reform of an administrative measure which leads to a great sacrifice of infant life. The law in France is that, within three days of their birth, infants shall be carried bodily into the presence of the registration officer. This is bad enough in towns and in the summer season, but we may imagine what may happen on the transport of these frail beings, in the cold, wet, and inclement weather such as we have lately had, for miles in rural districts. Indeed, no imagination is required on the matter, for M. Bouchard and many other writers have over and over again demonstrated the great mortality that is the direct consequence of the practice. The authorities have been memorialised times out of number; and now M. Ricord, as President of the Academy of Medicine, has just headed a deputation from that body to the Minister of the Interior. The Minister received the learned body with his usual affability, and stated that he saw plainly how this practice must give rise to much avoidable infantile mortality, and that a remedy must be sought for, but adding, in the true administrative red-tape style, that there are certain details which must be looked into, and, consequently, that delays must not excite surprise. And so it has been said over and over again, and yet publicists are ever deploring the stationary condition of the French population. The new-born infants are by this exposure swept off in thousands, and if they survive have to undergo the ordeal of the wretched nursing system that prevails. One curious fact is that it is said that at Lyons and some other places domiciliary registration is effected. We suppose that as the State, for the purposes of the conscription, is interested that there should be no evasion as to the numbers of male children born, personal verification must be insisted on in place of our own more simple system.

A Meeting of past and present students of King's College, London, was held on Wednesday evening, for the purpose of raising subscriptions for a testimonial to the Rev. Dr. Jelf on his resignation of the Principalship of King's College. A large committee of most influential students of all departments was formed, and Mr. Henry Worms, the Captain of the King's College Company of Rifle Volunteers (at whose house the meeting took place), was elected President. A considerable sum has already been promised, and we have no doubt the Rev. Doctor will receive a testimonial in every way worthy of him.

The Managers of the Metropolitan Asylum District do not seem inclined to let the grass grow beneath their feet. In addition to the contemplated purchases at Croydon, referred to last week, it is stated that they are now in treaty for the acquirement of about ten acres of land for Hospital purposes for the North-western District. The property in question is called Bartrams, is situated at Haverstock-hill, and the price is said to be £1900 per acre.

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

By JONATHAN HUTCHINSON, F.R.C.S.,

Surgeon to the London Hospital

(Continued from page 100)

The Dupuytren Museum: Want of a Complete Catalogue—Encephalocele and Spina Bifida—Skull of an Adult who had lived with Congenital Hernia of Cerebellum—Neuromata, &c.

December 29.—Musée Dupuytren.—In my first note as to this splendid museum, I complained that there was no catalogue. Since then I have succeeded in obtaining (after two Medical booksellers had utterly denied all knowledge of its existence) the work to which I alluded by MM. Denonvilliers and Lacroix. It is most ably done; the atlas of plates is beautifully executed, and the selection good. The letter-press occupies two thick octavo volumes, and there are twelve folio plates. Thus, therefore, as far as this section of the Museum is concerned, we have only left to desire that an appendix descriptive of recent specimens should be added. It is twenty-four years since this was printed. But the serious want still remains. Why is not the whole Museum catalogued on the same plan? As a lesser matter, let me ask again why is not a copy of this partial catalogue kept in the Museum?

Let me here assure any reader who may honour these notes by his perusal that I am not about to inflict upon him any attempt at a review of the contents of the museum. In passing through it I took a few notes as to the specimens which most interested me, and some of these I will now transcribe, in the belief that they may not improbably interest some others also.

French Surgeons have the merit of the earliest correct descriptions of hernia of the brain, or encephalocele, and, as might be expected, we have here a rich series of specimens. No. 5 illustrates the danger of ever, under any circumstances, meddling with a congenital tumour on the head or spine. It is the cranium of a patient who died after an attempt to remove an occipital tumour which proved to be a small hernia of meninges and part of cerebellum. I have known two patients, one adult (a fine healthy young woman) and one child, die under precisely similar circumstances in English practice. There are four other specimens of hernia of the cerebellum (occipital encephalocele), in all of which, however, the patient died young. Lastly, there is a cranium with a foramen magnum which would admit a child's fist. It is that of

an adult who had lived on in spite of a congenital hernia of the cerebellum. In all probability the true foramen magnum was separated from the hernial aperture by a fibrous band; at least such was the case in two specimens which I have dissected during the last year, and which are now in the London Hospital Museum. In this specimen all soft parts are removed. Its importance consists in the fact that it is from an adult. Both my subjects were young infants who died from the malformation. It is probably unique, and was presented by Professor Breschet in 1836.

Amongst the series of spina bifida specimens, we have one in which the tumour (the size of a small orange) is placed on the dorsal region, instead of, as usual, over the lumbar spine. This and several others illustrate the coincidence of spina bifida and hydrocephalus, and favour the opinion that meningitis and effusion are the cause of the spinal deformity. There are some excellent vertical sections of hydrocephalic heads with the brain *in situ*, which show (for the student) the exact position of the effusion better than any I have seen in English museums. The collection of specimens of neuromata is unusually extensive, though it cannot be expected to rival the magnificent series which Dr. Robert Smith's zeal has brought together in the Richmond Museum at Dublin. As far as I recollect, however, Dr. Smith's specimens chiefly concern the spinal nerves. Here we have several on nerves of more special function and importance. Thus there is one showing neuromata on branches of the facial and on the muscular nerves of the eye. This as well as the three following are all given by MM. Nélaton and Houel. No. 76 shows neuromata in the cervical and thoracic portions of the great sympathetic, and on the pneumogastric itself; and a third illustrates the same disease of the mesenteric portion of the sympathetic. In No. 74 we have multiple neuromata of the cauda equina.

I could find but one specimen of syphilitic disease of the nervous system. It is 62A, and is designated "syphilitic tumour of the pons," with a reference to the second series of the records of the Society of Anatomy.

(To be continued)

ON THE

PRINCIPAL APPLICATIONS OF THE GRAPHICAL METHOD TO BIOLOGY.

No. II.

The first problems, which physiologists attempted to solve by the method we have just described, were connected with the circulation of the blood. The pressure exerted upon the walls of arteries was formerly measured, in experiments upon animals, by means of a manometer adapted to an open vessel. But although Magendie and Poiseuille obtained some highly interesting results by this imperfect contrivance, the extreme difficulty of following, with the naked eye, the rise and fall of the mercurial column induced Ludwig to add a self-registering apparatus to the manometer, in order to obtain a graphical representation of its successive fluctuations. To this instrument he gave the name of *kymographion*. It mainly consists in a float, swimming on the surface of the mercury, to which a pencil is adapted; this pencil is brought in contact with a sheet of paper rolled on a revolving cylinder, and the curve which it describes corresponds to the oscillations of the manometer, or, in other terms, to the varying intensity of the pressure of the blood.

This instrument was frequently employed by Volkmann and Traube in their interesting researches; but as it could only be used in vivisections, being only capable of acting when connected with a manometer inserted into an open artery, Vierordt invented another instrument, which he called a *sphygmograph*, for the purpose of registering arterial pulsations in the human subject. Two levers of unequal length,(a) *ab* and *fg* (Fig. 7), are articulated with their stands by means of the axes *ec*, *hi*, and with a movable frame by means of the axes *nn*, *mm*. This double joint is intended to correct the circular motion which an ordinary lever, turning upon its pivot, would naturally describe; the whole apparatus acts like Watt's parallelogram, and the rectangular frame, in its alternate rise and fall, invariably moves in a vertical plane. The weights P P press down the lever *ab* upon the artery *p* R, the pulsations of which are transmitted by means of the frame to the stem *o*, and a corresponding

(a) The break in the two levers, *ab* and *fg*, is only a defect in the figure. The two levers must be supposed to be continuous.

curve is thus traced upon a cylinder which revolves round its axis s s. Fig. 8 shows the figure obtained.

It is evident that no idea of the true *form* of the arterial pulsation can be derived from the use of this instrument; it weighs too heavily upon the subjacent vessel to be displaced by a slight impulse, and is animated by a sort of jerking motion, which is ill calculated to express the transient and delicate variations of the pulse.

In 1858, Dr. Marey, having employed both Ludwig's apparatus and Vierordt's sphygmograph for experiments on arterial pulsation, found that the use of these two instruments led to contradictory results. He was thus led to invent the sphygmograph which bears his name, and which is too well known to require a description here. We cannot, of course, enter into minute particulars with regard to the numerous indications which it affords on the form of the pulse both in health and disease; we only notice it as having led the way to other investigations of a purely physiological character.

The motions of the heart had, since Harvey's time, been attentively examined by various observers, but the extreme difficulty which attends these investigations had led them to express the most opposite opinions on this subject. Such is the rapidity with which both auricle and ventricle contract and expand—such is the difficulty of correctly appreciating the order of succession of these recurring movements, that physiologists could not even agree as to the precise moment at which the apex of the heart is propelled against the walls of the chest. It coincides, according to most observers, with the contraction of the ventricles; it corresponds to their expansion, according to others.

Dr. Marey and M. Chauveau attempted, therefore, to solve the problem by means of the sphygmograph on the following principles:—If three levers are so disposed as to describe their curves at equal distances on the same sheet of paper, and if the first expresses the motions of the auricle, the second those of the ventricle, and the third those of its apex, then will the coincidence and order of succession of all these various phenomena be exhibited by the relative positions and by the form of the curves thus obtained.

But how can these motions, which take place in the interior of the heart, be transmitted to a registering apparatus? The following was the scheme adopted:—Two little india-rubber bags, A and B (Fig. 9), are filled with air, and communicate by means of a flexible tube. If A is placed in contact with the lever of a sphygmograph, while B is compressed, the air contained in the tube will press into A, and the lever will rise.

Upon this principle a cardiograph (Fig. 10) was constructed for the purpose of registering the contraction of the heart. Three elastic india-rubber bags were introduced into the thoracic cavity. Two of them (*o* and *v*) were passed through the jugular vein—which in the horse is very large—into the right cavities. The upper one *o* remained within the auricle, the lower one *v* penetrated into the ventricle. The third (*c*) was plunged into the walls of the chest between the external and internal intercostal muscles, and was struck at each pulsation by the apex of the heart. The three bags were connected by tubes, *to*, *tv*, *tc*, with A S, the sphygmographic apparatus. Each tube entered a copper box, the upper surface of which was made of india-rubber. The pulsations of this elastic wall were transmitted by three levers, *lo*, *lv*, *lc*, to the registering apparatus AE.

The curves exhibited in Fig. 11 express the heart's motion in the horse, as registered by this instrument. The line o corresponds to the action of the auricle; the line v to that of the ventricle; the line c to the apex of the heart. s o is the auricular, and s v the ventricular systole. This diagram shows that the auricular contraction precedes the contraction of the ventricle, which coincides with the pulsation of the heart.

In this experiment the magnifying powers of the graphical method are visibly exhibited. A succession of movements difficult to observe on account of their excessive rapidity, are inscribed with perfect accuracy, and on a large scale, on a sheet of paper, so that each contraction, however short its duration, is represented by a visible sign. At the same time, the utility of a permanent expression of transitory phenomena is self-evident in the present case. The only objection which can be brought forward is, that a heart possessing within its right cavities so complicated an apparatus, may perhaps feel slightly disturbed, and become more or less irregular in its action.

In order to obtain a graphical representation of the cardiac pulsations in man, Dr. Marey has invented the apparatus of which Fig. 12 exhibits a perpendicular section. The instrument consists of a hollow wooden capsule, from the bottom of which rises a spring, which, being connected with an ivory plate, is pressed down upon the region where the pulsations of the heart are felt externally. The oscillations of the spring propel the air contained in the capsule through a tube which communicates with a registering apparatus. Fig. 13 shows the curve obtained.

The experimental applications of this system can be varied *ad infinitum*. The pulsations of the jugular veins and the throbbings of the eyeball are registered with perfect accuracy by the cardiograph. By slightly modifying the arrangement of the copper box, in order to insure the adherence of its elastic upper surface to the registering lever, and by substituting for the cylinder a long sheet of paper, drawn forwards by an equal and regular motion (as in Morse's telegraph), Dr. Marey has obtained an instrument which may be employed in the experimental study of an immense variety of vital phenomena—he calls it a polygraph.

The pressure of the blood in the vessels varies under different circumstances, and does not remain the same during the principal periods of the heart's revolution. In order to ascertain its intensity, Messrs. Chauveau and Marey have constructed an apparatus which they call a sphygmoscope. This little instrument, when applied to an artery, transmits the changes in its pressure to the polygraph, which inscribes them in the form of a curve. It consists in an india-rubber bag A (Fig. 14), contained in a glass case, and communicating with the tube T A, which ends in c, the canula inserted in the artery. A solution of sulphate of soda fills the tube and india-rubber bag, to prevent the blood from coagulating. When the cock is opened the pressure of the blood swells the bag A, the pulsations of which are transmitted through the tube T S to the registering apparatus.

The swiftness of the vascular current, the rate at which it flows from the centre to the extremities, is another important element in circulation. Some authors have attempted to calculate it mathematically, the diameter of each vessel being accurately ascertained; but there is one point which mathematical calculation cannot appreciate—viz., the resistance of the capillaries which spread between the arterial and venous systems. It was, therefore, necessary to measure, not the speed with which the blood gushes from an open vessel, but the rate at which it moves through a closed cavity.

Vierordt discovered the method which allows the problem to be solved. He placed a small metallic case between the divided extremities of an artery; through this box the blood flows, and passes from the main trunk into the smaller branches. A pendulum which hangs within is deviated by the stream; and, one of the walls of the case being made of glass, the obliquity of the pendulum can be measured by a graduated scale, and the swiftness of the current thereby appreciated. Fig. 15 is a representation of this instrument.

At a later period, Vierordt adapted a registering apparatus to his instrument. But the curves thus obtained are unsatisfactory.

On the same principle, M. Chauveau constructed a more perfect instrument, which we shall not attempt to describe—our purpose being rather to show the principles of the graphical method and the nature of its results than to give an account of mechanical contrivances. We shall, therefore, be satisfied with showing the corresponding curves of the swiftness and pressure of the blood, obtained in the same artery by the haemodromograph and sphygmoscope.

FIG. 16.

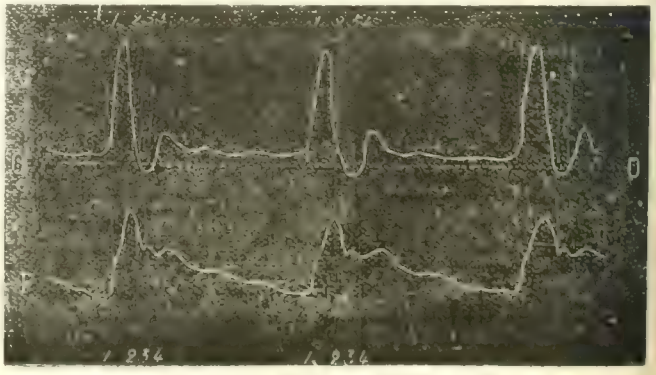

Fig. 7.

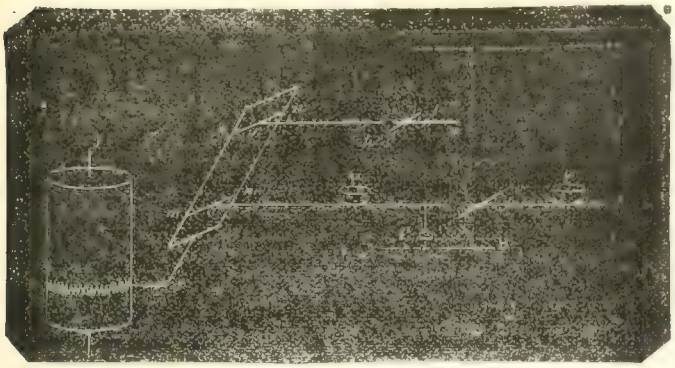

Fig. 8.

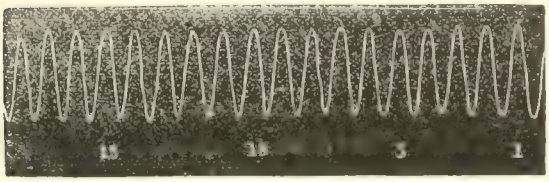

Fig. 9.

Fig. 10.

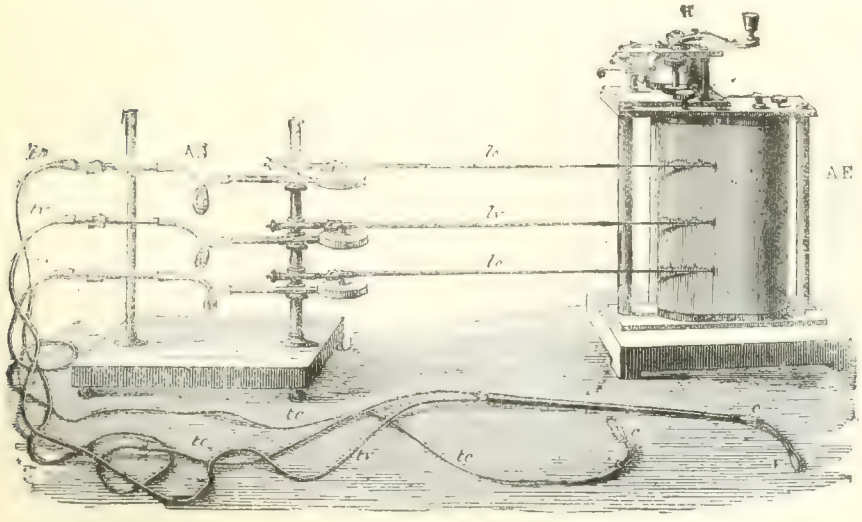

Fig. 11.

Fig. 12.

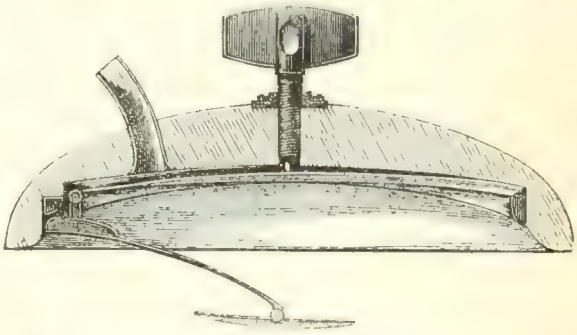

Fig. 13.

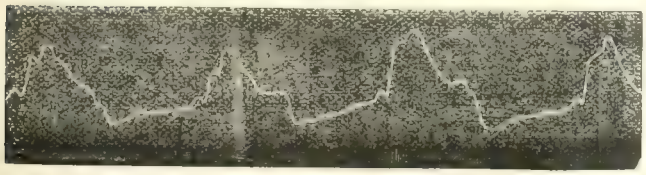

Fig. 15.

Fig. 14.

v (Fig. 16) indicates the swiftness, p the pressure of the blood. The difference between the two curves shows that, although due to the same cause, the contraction of the left ventricle, these two phenomena are dissimilar. A very simple experiment renders the difference still more conspicuous. Let the artery be compressed below the point on which the instrument is applied. The blood ceases to flow, and the curve, indicating its speed, falls down to 0; while the pressure constantly increases, and the corresponding curve rises higher than ever.

In a case of insufficiency, which had been artificially produced in a horse by destroying the sigmoid valves, the following were the curves obtained.

Fig. 17.

By comparing this curve with the previous one, the reader will appreciate at a single glance the enormous difference in the physiological conditions of the circulation, which results from an insufficiency of the semilunar valves.

Hitherto we have almost exclusively spoken of experiments performed by the graphical method on the phenomena of circulation. Investigations connected with this subject present, in fact, almost insuperable difficulties, when other methods are applied. But the applications of the graphical method are far from being limited to this single point. All the phenomena of motion can be accurately delineated by a registering apparatus. Let us select, for instance, the movements of the chest in respiration.

Vierordt had already obtained an imperfect graphical representation of these phenomena by means of his sphygmograph, but a more satisfactory result has been obtained by Dr. Marey with his *pneumograph*. It consists in a non-elastic belt which nearly goes round the chest, leaving a small space between its two extremities. This space is filled by an elastic hollow cylinder, which is connected by hooks to the two extremities of the belt, and communicates with the polygraph by a lateral tube. The following are the indications obtained:—

Fig. 18.

This curve expresses the normal and regular motions of respiration, and is at once modified by the presence of any obstacle to the free passage of air in the bronchial tubes, or to the natural expansion of the lungs.

We have now sufficiently set forth the advantages of the graphical method in its applications to the study of vital phenomena. In our next article, we will examine the results to which it has lately led, with respect to the laws of muscular action.

The French Minister of Agriculture, Commerce, and Public Works, on the recommendation of the Consulting Committee of Public Hygiene of France, and after full inquiry and investigation by that body, has authorised the sale of Condy's Fluid for the purification of tainted meat and polluted water, in addition to the usual purposes of disinfection.

THE MICROSCOPE, THE SCALPEL, AND THE BALANCE.

Under this title we propose to lay before our readers from time to time a sketch of the progress made in Medical Science by the numerous workers in the field of Histological and Physiological Anatomy, Therapeutics, and Medical Chemistry. We trust that we shall thereby meet a want which has long been felt by those members of the Profession who desire to be acquainted with the labours of our Medical pioneers, and also by those who are often prevented from undertaking researches through ignorance of what has already been done in the branch in which they are interested. It must not be supposed that we purpose in any case entering upon details. Our object will be rather to supply a sort of note-book of jottings from the various memoirs which appear in both foreign and British journals. We would also remark, that we shall not be able to supply a complete summary. We hope, however, to approach it closely, and we promise those who communicate with us to supply them with all the information in our power, both as to published works and methods of investigation.

Of the many points in microscopic pathology which have lately received attention on the Continent, there is none to which more observers have devoted themselves than that of the skin. Foremost among workers in this department stands Herr Biesadecki, one of Rokitansky's colleagues in the Institute of Pathology. He presented a paper to the Royal Academy of Vienna, in which, after dealing with the healthy structure, he treats of the conditions of growth in various inflammations. Phlegmonous or erysipelatous inflammations are not simply the result of an exudation, but are also connected with a new formation of cells in the true skin and in the subcutaneous cellular tissue; the alteration of the walls of the vessels is a secondary process. Syphilitic induration of the prepuce is also accompanied by increased cell growth; a decided multiplication of the nuclei in the walls of the vessels may also be seen; these nuclei, he thinks, ultimately block up the blood-vessels, and thus cause desquamation. The same may be said of syphilitic spots. Condyloma would seem to be associated with a similar development of cells. In the production of eczematous vesicles the process is different. Here the cells originate from the deep skin, but they soon pass into the mucous layer of the cuticle, and by their division they separate the two layers (scaly and mucous) of the cuticle, and in this way produce a conical pustule.

Electro-therapeutics are becoming fashionable, and it is, therefore, of importance to note that Signor Matteucci, one of the fathers of the science, has put forward views, in a memoir laid before the French Academy (December 2), which deserve attention. The chief result at which he arrives is, that in order to understand better the phenomena of electricity in nerve and muscle, we must study the electro-chemistry of these phenomena. Many of the facts grouped together under the head of "Electrotonus" (on which a good paper by Dr. Rutherford, in the last number of the *American Journal of Medical Anatomy*) are really caused by secondary electro-chemical reactions set up in the muscle.

Herr Redtenbacher has published a paper on the Austrian mineral waters. Taking the three springs of Ebriach, Ursprung, and Sztojka, we may say that their chief features are as follows:—The first is a carbonate and carbonic acid water; the second is eminently a sulphur water; and the third is chiefly remarkable for the quantity of potash it contains.

The structure of the blood globule, one would think, was sufficiently made out by this time; but clearly Herr Brücke does not think so. In a paper lately published he says something about its structure which gives support to Dr. Lionel Beale's well-known theory of development. He states that the corpuscle is composed of a soft and spongy substance (the *œcoid*), enclosing an organism endowed with vitality (the *zooid*), This latter he regards as made up of a central nucleus and a peripheral portion, which, in its normal state, extends into the interstices of the spongy portion, and binds all the parts together. His observations refer, of course, to nucleated

corpuscles; as to the non-nucleated, he says that our knowledge of them is mere conjecture.

A paper which has been published by Herr Obersteiner on the development of tendons shows us negatively the advantage of such a record as that we have begun. This physiologist has presented a memoir to the Academy of Vienna, in which, so far as we can see, he only repeats what is stated in many books, and which is strongly asserted by Virchow—viz., that the fibres of tendon (*i.e.*, the elastic or yellow fibres) result from the processes of the cells or connective-tissue corpuscles, as the Germans term them.

Why is it that when chemical substances are introduced into the blood they are not afterwards found distributed throughout the body, instead of being, as often happens, confined to some particular structure? This is a question on which a great many problems in therapeutics and nutrition undoubtedly hang. The researches of Dr. Anstie would appear to demonstrate that alcohol, for example, selects the muscular tissues, and we believe the reason will soon be pointed out by their author. Meanwhile, we may note an interesting experiment of M. Emile Husson's, which the veteran Schwann (of cell-theory celebrity) has brought under the notice of the Belgian Academy. M. Husson administered alkaline silicates to dogs, and afterwards sought them in the several tissues. What was the result? He found only traces of them in the blood; they were absent from the brain, the bones, the liver, and the bile. The muscles, however, and the spleen contained deposited silica in considerable quantity, and the greatest quantity was found as a deposit in the urine. M. Husson's explanation may be correct—at all events it is interesting. He says that the silicates travelled along freely through the tissues till in the muscles the lactic acid developed during contraction precipitated the silica, and thus prevented its further removal. In the urine it was precipitated by the biphosphate of lime. The deposit in the spleen is, he confesses, beyond his power of explanation.

FOREIGN CORRESPONDENCE.

FRANCE.

Registration of New-born Babies—Proposed Extramural Cemetery—Ill-effects of Stoves—Mexican Botany and new Remedies—Substitute for Cantharides—New Preparation of Phosphorus.

PARIS, January 29.

THE deputation sent by the Academy of Medicine to the Home Office was politely received by the Minister of the Interior, M. Pinard. On being informed that the custom of conveying new-born infants, within three days after birth, to the *mairie*, in order to register their names, was fraught with great danger to the frail little creatures, his Excellency had the kindness to promise that "a committee should be named for the express purpose of inquiring into the subject." Now, any one acquainted with the ordinary mode of proceeding of such committees must be aware that all subjects referred to them are in general *interred*, as the French say. It is really a pity that the law in this country should be such a stern deity, only to be propitiated, like Moloch, by infant victims—more especially so, as it would be quite sufficient to send a clerk to the place of birth, in order to put down the child's name. Of course, this would be attended with considerable expense; but, on the other hand, it would economise a great number of infant lives, and if France is so terribly in want of soldiers, it surely would seem advisable to spare at least the materials from which men are made.

Great agitation prevails in Paris *apropos* of the official proposal to establish a large cemetery at a distance of some miles from the capital, and to close those which are in use at present. The popular custom of paying frequent visits to the dead, especially at certain stated periods, would be seriously interfered with. The report of the official Commission states that the presence of three large burying-places within the precincts of Paris has a deleterious influence upon the public health, and that the streams which from these grounds flow into the Seine through subterranean channels pollute the wells from which a part of the population is supplied with water. The opponents of the Administration flatly deny the fact. It seems that a fair chemical analysis ought to set the matter at rest.

The noxious effects of a practice almost universally adopted in Paris seem to be more positively ascertained; we allude to the use of *iron stoves*, which among the poorer classes are so extensively employed. An iron stove is, no doubt, a cheap, speedy, and powerful generator of heat; but at the same time, on account of the peculiar conditions under which combustion is effected, it unfortunately evolves a considerable quantity of oxide of carbon, one of the most deleterious gases known to exist. This fact, which had already been brought forward for notice by M. Carré, was forcibly illustrated the other day by M. St. Claire-Deville, who, having placed Ansell's electric apparatus in an amphitheatre heated by an iron stove, heard the alarum strike ten minutes after lighting the fire. The Academy of Sciences is preparing a report on this important subject.

If the Mexican expedition has been productive of little good, politically speaking, it will certainly have favoured the progress of science, and, in particular, that of botany and Materia Medica. The rich flora of the country, which, through the absence of competent local observers, is said to be very imperfectly known, will be illustrated by several important publications which are just passing through the press, and the medicinal properties of certain well-known plants have been brought to light on the same occasion. The *Agave Americana*, with which the Mexicans prepare an intoxicating beverage known under the name of *pulque*, has been found by MM. Dugès, Devienne, and Goubaux to contain an epispastic principle, which, in the horse, has a very powerful blistering effect. This substance (which principally exists in the root of the agave) will no doubt be tried by some enterprising Physician on the human subject. If the experiment should prove successful, we shall possess a valuable substitute for the Spanish fly, and blisters may then be liberally prescribed without any fear of irritating the urinary apparatus.

While new medicines are being thus introduced to the public, an old friend of ours has been prepared for use in a more suitable form. Phosphorus possesses powerful stimulating properties, which are well known to all Practitioners; but its unpleasant effects on the digestive organs and the irregularity of its action have (in France at least) almost driven it from the field. These inconveniences, according to Dr. Beaumetz, are due, not to the agent itself, but to the preparations hitherto employed. He therefore proposes a new vehicle for this substance—viz., chloroform. The solution prepared contains $\frac{1}{1000}$th of solid phosphorus; it is administered in capsules of gelatine (highly coloured in order to avoid the decomposing action of light), and containing each one gramme of the liquid, a quantity equivalent to one milligramme of phosphorus. It is, therefore, easy to calculate how much the patient is taking, since each crystal corresponds to a definite unit. Dr. Beaumetz has already employed this preparation with success in various cases, especially in locomotor ataxy.

GENERAL CORRESPONDENCE.

THE BRITISH LYING-IN HOSPITAL AND THE LADIES' MEDICAL COLLEGE.

LETTER FROM DR. EASTLAKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg earnestly to request the attention of my Professional brethren to the following facts, which are not only important, I think, as concerning our relations with midwives, but also in connexion with the attitude which is assumed by the managers of the institution known as the "Ladies' Medical College." I have been Physician to the British Lying-in Hospital for six years, and during that period the Medical officers, as governors of the Hospital, were annually elected, according to custom, members of the Weekly Board. At the last half-yearly meeting a considerable number of the supporters of the said College suddenly and simultaneously made themselves governors of the Hospital by the payment of the annual subscription of two guineas, and thus became, there and then, entitled to vote at that meeting. The united votes of these supporters of the Ladies' Medical Society enabled them to remove, amongst others, the acting Medical officers from the Board of Management, and to place there in their stead a certain number of their own body. I will leave your readers to form their own judgment upon this course.

One of the pupils of the "Ladies' Medical College" became

a short time since a midwife under my charge in the out-department, having before filled the office of matron to the Hospital. It is of her conduct, in conjunction with that of another pupil of this College, that I have to complain; and the course which the Board, as modified by the recent election, has taken in reference to this matter compels me to publish the following details.

On October 12, at about 4 a.m., I received a written message from the midwife in question, desiring me to go to Nightingale-street, Lisson-grove, to attend a patient of the Hospital who was in labour. She expressed the opinion that the patient should at once be delivered either by long forceps or craniotomy. On my arrival at Nightingale-street, I carefully examined the patient, and found the vertex presenting at the brim of the pelvis. The head seemed large and extremely well ossified. The os uteri was almost fully dilated. I was told that the liquor amnii had escaped nine hours. The condition of the passages was quite satisfactory. The pulse was scarcely 80 in frequency, though not strong. The tongue was moist and the skin cool. The fœtal heart was distinctly audible in the left iliac region.

As the patient had, in the course of her life, given birth to eight or nine children at the full term of pregnancy without trouble, and as there was no constitutional disturbance nor any local symptoms to warrant interference, I advised that nothing should be done at that time, with the exception of giving the poor woman some strong animal broth. Before leaving her, I gave distinct injunctions that I was to be sent for if the labour did not proceed favourably, or the patient became at all exhausted.

The midwife then left with me, but directed a female pupil of the Hospital to stay with the patient. At 5 p.m. a friend of the midwife—a pupil of the "Ladies' Medical College"—fetched me again to the case. On the way she stated that the child's hand and the funis had become prolapsed during the labour, and that she had replaced them both; that the funis was only feebly pulsating when it first came down, and that before she succeeded in pushing it back it had ceased to beat. She also added that she and the midwife had carefully auscultated, and that the fœtal heart was no longer audible. I expressed my opinion, on the occasion of my second visit, that it was an extraordinary thing that the hand of the fœtus and the cord should become prolapsed so many hours after the waters had escaped. I said that I feared the hand of one of the midwives must have been passed very high to admit of such an accident, but neither of them admitted that they had in any way interfered with the case. On examination, I found that the position of the head was altered, for the brow was now the presenting part, and the head was firmly impacted in the inlet of the pelvis.

Finding that the patient was greatly exhausted by her prolonged labour, that the fœtal heart had ceased to beat, and that the constitutional and local symptoms indicated immediate delivery, I at once proceeded to perform craniotomy. The extraction was accomplished in about a quarter of an hour, and the placenta removed within ten minutes. I was informed by the midwives afterwards that the patient went on favourably. I subsequently called on her, when she complained bitterly of the treatment she had received from the midwives. I was informed by her and two other women, who were in the room at the time of her labour, of the following facts:—That, in the interval between my first and second visit at the time of her confinement, instruments had been used by both of the midwives; that these instruments had been obtained from Queen Charlotte's Hospital, and were used for a long time, with no success; that she repeatedly begged that I should be sent for, but was told by the midwives that they did not want "any Doctors crowing over them," etc. The patient stated that up to the time of the instruments being used she distinctly felt the movements of the child. Finally, she was not told beforehand that the midwives intended to employ instruments. The investigation of this case was thoroughly entered into on January 2; the patient herself, with two friends who were present during the labour, being called upon to give their testimony. Now, although certain points were denied by the two midwives in the face of my own statements and the evidence of the three witnesses, still the main facts were admitted by them—namely, that the application of forceps had been attempted during the interval of my visits, and that this fact had been carefully concealed from me. Of course, this is one of the most dangerous and treacherous acts of insubordination which a midwife can commit, fraught as it is with serious peril to the patient, and with dangers both to the reputation and to the useful action of the Obstetric Physician, with whom lie the ultimate conduct and responsibility of the case. The act of putting away the instrument before my arrival, and not telling me that attempts had been made to employ it, the midwife qualified in her defence as "a breach of Professional etiquette!" The complaint was brought before the Board, and no decision was taken for a month. Meantime I received from Dr. Edmunds, of the Female Medical College, and one of the new members of the Board, a letter requesting me to state whether I was favourable to "the proposed alliance of the Ladies' Medical College to the Hospital."

I am conscientiously desirous of improving the obstetrical education of midwives, as such, in common with the rest of the Profession, I believe. I am as warmly opposed to holding out to them an incomplete general Medical education by imperfect and heterogeneous courses at a *soi-disant* Medical College, subject to no fixed or legal tests by examination, and giving them, by inference, upon that mischievously incomplete basis, a status as irregular female Practitioners in midwifery and the diseases of women and children. In my reply to Dr. Edmunds, therefore, I stated that "I protest against the unwarrantable conduct of two of the pupils of the institution called the 'Ladies' Medical College.'

"I must, moreover, decline, as Physician to the British Lying-in Hospital, to support, in any way, a union with an institution which is, in my opinion, founded upon an erroneous basis, conducted with defective judgment, and which advocates principles which I consider opposed to public interests. An alliance with this establishment would, in my opinion, be subversive of the objects of the charity, which are to relieve in the most efficient manner the sufferings of lying-in women, not to afford a field for social experiment, or a battle-ground for theorists."

The final result has been that this new Board, after a further application on the subject from me, has passed a resolution censuring the midwife, but adding, "That the disclosures which have been made satisfy the Board that, with the view to promote good harmony and satisfaction for the working of the charity, they feel that it will be their duty at the next general meeting to recommend that Dr. Eastlake's resignation be requested." As, during the six years that I have gratuitously given my services to this charity, no complaint of any sort has been, or is now, communicated to me from the Board, as the justice of my complaint is admitted by the action of the Board, I shall appeal from this unprecedented decision, made in my absence and without any communication to me, to the governors, to the Medical press, and the Profession at large. The question is wholly one of principle, and in no degree personal.

I am, &c.

Henry E. Eastlake,
Fellow of the College of Physicians, Dublin, etc.
Welbeck-street, Cavendish-square.

THE ARMY MEDICAL DEPARTMENT.

Letter from Dr. Charles Mayo.

[To the Editor of the Medical Times and Gazette.]

Sir,—As one who has seen active service in the Medical Department of the United States army, perhaps I may be allowed to say a word in reference to the letter of your correspondent who has served thirty years in the British army. He is quite right in saying that the Americans concede military rank to their Medical officers; but I doubt very much whether this fact has the slightest effect in attracting competent men to the service. Nay, more, if military rank had been a matter of great moment, the rule which gave only the same grade, that of major, to the Surgeon of a regiment and to the Medical Director of an army of 100,000 men, ought to have acted as a deterrent during the war. But it did not so act. Men who were willing to work were anxious for promotion in their own department, although it brought them no increase of military rank or pay to compensate for the increased labour.

I quote my own brief experience of service with some diffidence against one so much my senior, but these are some of the conclusions to which it has led me:—First, that the position which a Medical officer occupies, and the attention which he commands, depend entirely on his personal qualities, and not on any artificial rules of rank or precedence. Secondly, that Medical officers should be as much as possible "a class apart," and not be mixed up in any way with regimental affairs. Thirdly, that all such questions as those about rank,

sashes, and spurs, tend only to the discomfort and depreciation of the Medical officer. Fourthly, that the reason why the British service in time of peace is not attractive to men who have anything else to do is simply this—that it offers so poor a prospect in exchange for a man's liberty. For twenty years, at least, of the best part of his life, he must cease to be a free agent; he must reconcile himself to the monotonous round of garrison duty, and be liable to be sent to any unwholesome corner of the world for an indefinite time; and all this for pay which is not equivalent to the proceeds of a small country practice. Such costly luxuries as wife and children are beyond his reach. It seems to me that the conditions of service must be much less rigid, and the pay much more liberal, before there will be any strong competition for vacancies in the Medical Department of the British army.

Your article on a book entitled "Spiritual Wives," by Mr. H. Dixon, prompts me to say a few words on that subject. That writer, as quoted in the *Times*, states that the abnormal doctrines of the relations of the sexes, which he has been at so much pains to elucidate, prevail in American society to an extent which may well surprise his readers. On this side of the Atlantic, a woman who professes a belief in "free love," or similar vagaries, loses caste, he says. "In the United States it is not so." (I quote from memory.) Every Englishman who knows anything of American society and manners, must know that such statements, which no possible context can qualify, are utterly without foundation. This gentleman has been to the favoured spots where materials for his intended book were to be found, and has imagined or been told that all American society is impregnated with the same leaven. It is as if his ship had touched only at the Guano Islands, and he had reported that the entire New World was made of that material. I am, &c.

CHARLES MAYO, M.B., M.A.

121, Belgrave Mansions, Grosvenor-gardens, S.W.

SPANISH WEST INDIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having read with much interest the advice to "young men on the field for practice in the Spanish West Indies," given by a correspondent to your excellent journal, I would beg to offer a few words on the same subject, as one which may be, at the present moment, exercising an important influence on the destinies and lives of our young Professional brethren. *In limine*, let me remark that I have myself visited the countries mentioned by your correspondent under the above title, as well as other parts of the West Indies and portions of Central America. I will honestly confess I do not share the good opinion he apparently holds on the supposed advantages such a country affords for practice. To young men about to start for practice in the Spanish West Indies, I would briefly say "Don't!" Cuba and Porto Rico—I suppose St. Domingo can scarcely be reckoned—form what are called the Spanish West Indies. The first is a noble possession for any power to claim; highly fertile, possessing much mineral wealth and a magnificent port and harbour; it has also a large slave population. For doctors of any country or race, it must be always more or less inviting, as, with hardly an exception, Havana is the most sickly spot in the whole West Indies. *Vomito prieto* is rarely altogether absent, and may be said to decimate the population. Still I, for one, would hesitate before entrusting my own life or the lives of friends to a newly arrived doctor, though he be laden with all the honours of the first University in Europe. Life in Havana, to a man with good introductions and a balance at his banker's, will be found very agreeable. It is a frightfully expensive place to live in *en garçon*, and the accommodation at hotels, lodgings, etc., dear at any price. I believe it was necessary a few years ago for a medico to pass an examination in Spanish before he received permission to commence practice; at any rate a Doctor would be very much mistaken if he set up in practice, ignorant of the language spoken by everybody around him. Spanish is, however, tolerably easy to acquire, remembering the good Spanish proverb—"He who goes on, gets there." The interior of Cuba is more healthy, though this would be contrary to the Doctor's interests; on the hills, where the soil is red and coffee is mostly cultivated, he may manage to keep his health. There are copper-mines, too, belonging to some English companies, and he may get appointed to one of them. Let him remember the fact, slavery is the recognised order of the day; and the slaves are generally in a state of discontent, so much so that a negro revolt was, not long since, constantly apprehended. I have found Spaniards by far the best patients going in the way of fees. They remunerate in princely style. I consider the English may take rank next in the matter of fees, and after them the Yankees, lowest of all the French. These last have peculiar notions of their own on the question of remuneration; however, with them we have not to do. Young men about to practise anywhere will do well to see a little of the world first, and if they intend to commit themselves to a West Indian life, they cannot do better than see as much of it as possible before settling. Let them take service in the Royal Mail Company's steamers, and go all over the West Indies. Before long they will see many more desirable spots than the Spanish islands to live in, and may very likely step into a snug civil appointment in one of our possessions.

Perhaps another time, if you are inclined to publish my letter, I may trespass further on your space, and give an outline of the career a man leads who goes to the West Indies for practice. I am, &c.

THE AUTHOR OF "A STEAM TRIP TO THE TROPICS."

January 16.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 21, 1868.

J. SIMON, Esq., President, in the Chair.

A REPORT, by the Morbid Growth Committee, on the tumour exhibited by Mr. Spencer Watson, was read by Mr. Hulke. It stated that the tumour appeared to originate in ossification of the deeper layers of the periosteum.

Dr. PEACOCK then exhibited an

ANEURISM OF THE AORTA OPENING INTO THE RIGHT VENTRICLE.

The patient, a man aged 25, had suffered from rheumatism, and appeared to be labouring under disease of the aortic valves. When admitted, there was some swelling of the face and extremities. After death, the aneurism was found to be connected with the aorta at the junction of the right and left aortic valves. It did not rupture into the pericardium, although that was thinned. The pulmonary valves were nearly gone, and the opening, which had been formed not long before death, was close to the orifice of the pulmonary artery.

Dr. ANSTIE showed a specimen of

ULCERATIVE ENDOCARDITIS,

occurring in a man, aged 30, who came to consult him at the Westminster Hospital, complaining of pain in the chest. He had been a soldier, and was of a sallow complexion. He had no symptoms of rheumatism, but his breath was short, his cheeks slightly flushed, and he had symptoms of commencing pneumonia in the right side, and a loud bruit at the base of the heart. He was admitted as an in-patient under Dr. Basham, and died in nine days. In the morning he was cheerful and improving; at night he was morose in the extreme, became comatose, and sank in a few hours. There was no trace of embolism in the brain, but the left side of the heart was enlarged. There were granulations on the aortic valves, and still more on the mitral, whilst an abscess in the inner wall of the ventricle opened close to the origin of the aorta. The spleen was enlarged.

Dr. M. MACKENZIE brought forward a very large

LARYNGEAL POLYPUS,

removed during life from an old lady who had completely lost her voice. It was removed at one operation, and was most likely attached to the posterior part of the right vocal cord.

He also showed a specimen of

CANCER OF THE EPIGLOTTIS.

There were also in this patient two large cystic swellings on either side of the neck. Specimen referred to the Committee.

Dr. CHURCH exhibited

I. TWO CYSTIC KIDNEYS,

removed from a woman aged 41. She was brought into St. Bartholomew's Hospital half comatose. She had been hemiplegic, the vessels in her brain were atheromatous, and there were traces of old clots.

II. DISEASED AORTIC VALVES,

from a man, aged 30, who came in complaining of pains in his limbs and side. He died on the water-closet. The valves were found to be almost completely destroyed; a clot was attached to a remnant of one of them, and was also connected with a long clot in the aorta.

III. A SIMILAR HEART WITH A FIBRINOUS CLOT IN THE PULMONARY.

In answer to a query by Dr. Wilson Fox, Dr. Church said he believed this to have been formed during life, because it was tough and firmly adherent to the valve, and as there was some recent clot also attached.

Referred to Drs. W. Fox and Peacock.

IV. A HEART FROM AN ADULT WEIGHING ONLY 3 OZ. 1 DR.

The patient, aged 36, died from stricture of the pylorus. The body was not weighed.

Dr. Peacock remarked that it was the lightest on record.

Dr. Church then proceeded to show

V. A MASS OF ENLARGED BRONCHIAL AND MEDIASTINAL GLANDS, taken for a tumour supposed to be aneurismal. The patient died after expectorating a good deal of blood, which was found to come from ulceration of the lung.

Dr. Moxon showed, for Dr. Clifford Allbutt, of Leeds, two tumours of the pons Varolii. These, which are extremely rare, were one a glioma, the other villous in their structures. Also a diseased aorta, the result of friction. A column-like rod extended from the corpus Aurantii into the aorta, and ended in a hard point. An erosion of the wall of the vessel was observed at its extremity, probably caused by the motion of the valves.

Mr. W. J. Smith showed some

HAIRS REMOVED FROM TWO MEMBERS OF THE SAME FAMILY AFFECTED WITH TINEA DECALVANS.

They are the short clubbed hairs so often seen at the margin of the bald patch during the spread of this disease. At their free brush-like ends (which represent the points of fracture of long hairs), numerous sporules can be seen extending downwards, in some instances a short distance in the interior of the shaft. The roots, as well as those portions of the shafts below the situation of the fungus, are pale, thin, and dwindled. In one instance only (during the examination of many specimens) were sporules found in the root. No mycelium can be detected. The sporules cannot be distinguished by their morphological characters from those of the *Tricophyton tonsurans*. Besides the two persons above referred to (father and son), the mother was also affected; but, in her case, neither broken hairs nor fungus could be detected. In some of the short hairs taken from the other two, sporules could not be found.

Mr. H. Arnett showed an

ANEURISMAL DILATATION OF THE LEFT VENTRICLE OF THE HEART,

removed from the subject the day before. It had been taken by some for an aneurism: during life there had been a marked cardiac thrill. A large pouch, nearly filled with old fibrin, rising at the back of the heart, nearly encircled the organ.

THE CLINICAL SOCIETY.

FRIDAY, JANUARY 24.

Dr. Jenner, Vice-President, in the Chair.

Mr. Spencer Watson related four cases of

VASCULAR ULCER OF THE CORNEA

treated by seton in the skin of the temporal region. He had now a considerable number of cases treated on this plan, and he believed that in such cases as resist the usual remedies it is a resource of the greatest value. He had detailed notes of thirteen cases, in all of which marked improvement in the state of the cornea followed the application of the seton. He did not bring the cases forward as novelties, because the treatment of such cases by this method had been long practised by ophthalmic Surgeons, but simply to draw attention to a most valuable remedy for a most intractable and sometimes most destructive disease of the eye.

Dr. Hillier and Mr. Thomas Smith, referring to one of the cases related, were of opinion that no connexion had been yet shown to exist in children between photophobia and the existence of ascarides.

Mr. Hulke advised the use of less severe measures than the seton, such as local and constitutional sedatives, especially the repeated local use, night and morning, of solution of atropine. Tonics might also be added.

Mr. Rouse preferred the use of belladonna to that of atropine, in consequence of the difficulty of obtaining a pure solution of the latter.

Mr. Watson stated that the seton was only recommended as a last resource. He did not consider it a painful or troublesome remedy.

Dr. Weber narrated

TWO FATAL CASES OF ACUTE RHEUMATISM,

in which death was preceded by excessive increase of the temperature of the body. In the first case, that of a male aged 45, cerebral symptoms supervened on the twelfth day of the illness, the previous progress of which had been comparatively mild, although the patient had been more than commonly restless. During the evening of the twelfth day the restlessness increased, and he passed a large quantity of pale alkaline urine. Early next morning he became delirious, and finally comatose. This condition ended fatally in five hours, during which the temperature exceeded 108° Fahr., his breathing was accelerated and stertorous, his pulse over 130° and hard, and the pupils without reaction. In the second case, the fatal symptoms set in, and progressed in the same way, although death occurred somewhat more rapidly. Ten minutes after death the temperature in the axilla was 107·8°, and in the rectum 109·8°. In both cases the character of the first sound of the heart, as heard at the apex, was altered. The principal pathological changes were hyperæmia of the brain and its membranes, imperfect coagulation of the blood, recent fibrous deposit on and around the mitral valve, and hæmorrhages beneath the serous membranes. Dr. Weber expressed the opinion that in these cases the cerebral functions, after a short stage of excitement, became paralysed, and that the phenomena of intense pyrexia which present themselves are not the cause, but the effect, of this paralysis. In support of this view, he compared them with others recorded by Wunderlich, in which there was excessive rise of temperature before death in tetanus and other fatal neuroses, and pointed out the striking resemblance of the symptoms to those of sunstroke. He further referred to the remarkable experiment of Tscheschechin, who found that, after section of the pons at its junction with the medulla oblongata, the contractions of the heart and the respiration were accelerated, and the temperature raised. In his concluding remarks on treatment, Dr. Weber suggested that all cases of acute rheumatism, in which there was more than usual restlessness, should be watched with special care. If the premonitory symptoms of danger were early recognised, particularly increase of temperature, a good result might still be hoped for from the use of the cold affusion, or of other means for lowering the temperature of the body, combined, perhaps, with the use of quinine in large doses.

Dr. Sanderson related a case which had recently come under his notice, which he had no doubt was of the same nature as those related by Dr. Weber, although it differed in some important respects. The patient, a female aged 45, became drowsy; two days later her drowiness subsided into coma, which in a few hours ended in death. During her final period the temperature rose above 109°, the skin pungent, the respiration accelerated and stertorous, and the pupils insensible. After death the blood was found entirely fluid. Dr. Sanderson concurred generally in the explanation of the symptoms offered by Dr. Weber.

Dr. Murchison, after referring to two cases, agreed in regarding the rise of temperature as the most important feature with reference to the pathology of these cases. He was not prepared to deny that that part of the nervous system which regulates the heat of the body is interfered with, but it appeared to him more reasonable to attribute this interference to the existence in the circulating blood of poisonous products of abnormally increased destructive metamorphosis of tissue, than to suppose that the disorder was primarily neurotic. The state of the patients before death, and their mode of death, seemed to him similar to those often observed in malignant typhus, and when the typhoid state supervenes in other diseases, and he believed that the pathology of the two cases was the same.

Dr. Anstie drew attention to the fact that death occasionally occurs in cases of delirium tremens in a very similar manner to that now under consideration; and referred to a case of the kind in which the axillary temperature before death was 105°.

Dr. STEWART related several striking cases in which rapid prostration, with stupor or delirium, had occurred unexpectedly in the course of mild attacks of acute rheumatism, terminating fatally in a few hours. In the last of these, the temperature shortly before death was 100·6°. He had no doubt that the other cases were of the same kind. In all the blood was found perfectly fluid after death. He had, further, generally noticed that the cases which had terminated in this way were distinguished by suddenness of invasion, profuse perspiration, and abundant miliary vesicles.

Dr. MARCET pointed out that whatever view might be entertained as to the remote origin of the increase of temperature, it could only be regarded or understood as an expression of increased oxidation or other chemical action, and of impaired molecular life. On this ground a refrigerant mode of treatment was likely to be too depressing.

Dr. WEBER, in his reply, gave his reasons for believing that the cold affusion is by no means so depressing as is commonly believed.

Mr. COOPER FORSTER brought under the notice of the Society a case of

FEMORAL ANEURISM,

the sac of which was ruptured. The artery was tied above and below at the seat of the aneurism, and the patient recovered. Mr. Forster remarked on the failure of pressure in the treatment of the aneurism, which he attributed to the low diet to which the patient had been subjected for three weeks prior to any treatment. He had long been convinced that complete stoppage of the passage of blood through the vessel was the most desirable method and most sure of success. After referring to the circumstances under which the rupture occurred, Mr. Forster stated that he considered that the operation of cutting into the sac and tying both ends of the vessel offered the best chance of rapid recovery. Whether the artery involved—viz., the femoral—justified a departure from the plan recommended in a corresponding condition of the popliteal, was the point to which he particularly drew the attention of the Society; for his own part, he believed it made exactly the difference in treatment, and for various reasons he concluded that the practice of amputation, which has been adopted in the cases of ruptured popliteal aneurism, should not be used in the case of ruptured femoral aneurism.

In reply to Mr. Thomas Smith and Mr. Maunder, Mr. FORSTER stated that the symptoms of rupture of the aneurism were unmistakable, and that the blood escaping from the lower end of the vessel was of a bright arterial colour.

Dr. GREENHOW exhibited specimens of urine of a patient whose case will be communicated at a future meeting. A committee was appointed to co-operate with him in the investigation of it.

The Society was adjourned at 10 p.m.

OBITUARY.

M. SERRES.

THIS celebrated naturalist and Physician expired on Wednesday, the 22nd ult., at the advanced age of eighty-two. He was born at Clairac, a small town in the south of France, and commenced his Medical studies during the first years of the present century.

When the *internat* (a) was established in the Hospitals of Paris, M. Serres was one of the candidates who were nominated in the very first promotion; and many a time, at the annual banquet which brings together the members of this now ancient and illustrious brotherhood, have we seen that venerable old gentleman presiding at the head of the table, as the oldest survivor, and, at the same time, as one of the leading scientific celebrities of the day.

M. Serres took his Doctor's degree in 1810. During the two successive sieges of Paris, in 1814 and 1815, he was busily engaged in attending the wounded, and is even said to have been accidentally injured in the leg by a stray shot. Whether this story be true or not, it is certain that he achieved one most signal success, which immediately recommended him to the attention of the then existing powers. The unlucky Cossacks, whom the fortune of war threw into the hands of French Practitioners, were swept off at a most alarming rate, under the debilitating system of treatment which then prevailed, so that the Russian Emperor might almost have supposed that French Physicians were bent on avenging the defeat of their army upon his soldiers. M. Serres, remembering that all these men, in their own country, were addicted to hard drinking, gave them abundance of brandy, instead of resorting to the use of the lancet; and his success was prodigious, especially when compared with the results of the opposite method. For this service he was at once brought into notice, and his progress was rapid and uninterrupted. In 1822 he became Physician to La Pitié. He was named a member of the Academy of Medicine; in 1828, having devoted his attention more especially to the study of comparative anatomy, he became the successor of Chaussier at the Academy of Sciences; and, lastly, in 1839, he became a Professor at the Museum (Jardin des Plantes), being appointed to the chair of Human Anatomy, which the death of Frédéric Cuvier had left vacant.

The labours of Serres are principally connected with natural history. In the Medical line his most important discovery was that of "typhoid fever." Before his time the various forms of this disease were described under the names of "putrid fever," "bilious fever," etc., and the connexion of these pyrexiæ with a peculiar alteration of Peyer's patches had not been ascertained.(b) MM. Petit and Serres, in 1813, described another kind of fever, which they called "enteromesenteric," and which they stated to be anatomically characterised by swelling and ulceration of Peyer's patches, and hypertrophy of the mesenteric glands. This new disease was inscribed on the pathological register by the side of the putrid, bilious, and mucous fevers of the old writers. It was reserved for Dr. Louis to show that all these affections were only different degrees of the same disease, and were all connected with the same morbid alterations. Still, the discovery of Petit and Serres, though it did not settle the question at once, marks an important progress in Medical science.

M. Serres obtained the grand prize of the Academy of Sciences, and laid the foundation of his future greatness, by his essay on the "Structure of the Brain," a work highly appreciated at the time, but which contains little to interest the reader now. An unpleasant controversy arose between Serres and Tiedemann in connexion with this celebrated essay—the German anatomist openly charging his French competitor with plagiarism. We cannot, of course, enter into the merits of the case.

M. Serres devoted a great part of his attention to osteogeny, and laid down the general laws of the formation of bone. He was also the chief promoter of the ingenious theory which considers the structure of the human body as absolutely symmetrical, and says that man is double—the whole individual being composed of two halves, each single organ having its counterpart, and most of them being easily divided into two similar parts. He even contended that the vertebræ were double, and exhibited some anatomical preparations in favour of this view, which is now entirely discarded from science.

In his numerous publications, M. Serres liberally availed himself of the assistance of his subordinates, and freely carried out the plan laid down a short time ago by M. Leverrier with reference to astronomical observations—viz., the suppression of all names except his own. Nor were the injured parties raw youths, like the observer at Marseilles. Some of them were eminent men, among whom we may fairly name the illustrious and unfortunate Gratiolet, whose talents were kept in the shade as long as possible, and who only emerged from obscurity a few years before his premature death. Of this part of M. Serres' character and career it is impossible to speak too severely; and although the high scientific aristocracy of this country may attempt to palliate a line of conduct to which too many of them are unfortunately addicted, the common sense and sound feeling of the public will easily dispose of their sophistry.

As a professor, M. Serres is said, when in the prime of life, to have been brilliant, ingenious, and interesting. To those who only saw him at a time when age had dimmed his intellectual powers, this judgment will, perhaps, appear too favourable.

M. Serres retained, however, till lately his full activity and

(a) The *internes* of the Paris Hospitals, who are appointed by an open annual competition, are entrusted during four years with duties nearly similar to those of House Surgeons and Physicians in England; with this difference, however, that they must be Medical students and not Doctors. Most of the eminent Medical men of the present day have belonged in their time to this body; we may mention the names of Rayer, Cruveilhier, Ricord, Broca, Bouillaud, Robin, Nélaton, and Claude Bernard.

(b) The existence of a diseased state of Peyer's patches in certain forms of malignant fever had been already noticed by various authors, but not systematically described.

a considerable degree of bodily vigour. He continued to discharge assiduously his multifarious duties, and when the Government named a commission to inquire into the administration of the Museum, which had been severely blamed by the public press, he stood prominently forward in defence of this institution.

The long life of M. Serres, which had scarcely ever been chequered by disease, was abruptly terminated by an attack of capillary bronchitis, after few days' illness.

He has bequeathed 75,000 fr. (£3000) to the Academy of Sciences, and 60,000 fr. to the Museum.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 23rd ult., viz. :—

Aston, William Henry, Tupsley, Hereford, of St. Thomas's Hospital.
Bulbs, Henry Horne, Otago, New Zealand, of University College.
Davies Colley, John Neville Colley, M.A. Cantab., Whitefriars, Canterbury, of Guy's.
Douglas, William, Belfast, of the Edinburgh School.
Gilhooley, Roderick Joseph, Dublin, of the Dublin School.
Greenhill, Arthur Francis, Barnes, of St. George's.
Hamilton, David, M.D. Edin., Gloucester-street, N.W., of the Edinburgh School.
Hilder, Ridley Thomas, Woking, Surrey, of Guy's.
Hobbs, Alfred, L.S.A., Yarmouth, Isle of Wight, of the Middlesex.
Hubert, William Henry, Markyate-street, Herts, of St. George's.
May, Bennett, Birmingham, of the Birmingham School.
Mickle, William Julius, M.D. Toronto, Gwelph, Canada, of St. Thomas's and Toronto.
Moore, Joseph Henry, Scarborough, of the Hull School.
Mowll, Richard Alfred, Liverpool, of Guy's.
Patton, Edward Kenny, M.D., Montreal, Quebec, of St. Thomas's, Laval, and McGill.
Pywell, William Hodgson, Westminster-bridge-road, of Guy's.
Samuel, Richard, Llandilo, Carmarthen, of St. Bartholomew's.
Smith, Eldred Noble, Hertford, of St. Mary's.
Wimberley, Frederick William, Donnington, Lincolnshire, of Middlesex and Galway.

At the examination this evening, only four candidates out of the twenty-four failed to acquit themselves to the satisfaction of the Court. One gentleman was allowed to postpone his examination, having been attacked with severe illness.

The following gentlemen were admitted Members on the 24th ult., viz. :—

Andrews, George, Chipping Norton, of Guy's Hospital.
Godson, Henry, Coldhurst, Oldham, of the Manchester School.
Goldie, Robert William, Tredegar-road, Bow, of the Edinburgh School.
Hanne, John James Arundell, Withdeane, Brighton, of St. Bartholomew's.
Hensman, Charles Frederic, Kimbolton, of the Charing cross and Glasgow.
Hird, James, Pembroke, of St. Thomas's.
Hobbes, Jonathan Lord, Handsworth, of the Charing-cross.
Pavey, James, Nailsworth, of the London.
Pinder, William Parker, Retford, Notts, of University College.
Pollock, Robert, L.S.A., Paisley, Renfrewshire, of University College.
Rhodes, Charles James, Pontefract, of Leeds.
Steven, Alexander, M.B. Edin., Port Glasgow, of the Edinburgh School.
Vignola, Fernando Barozzi da, Regent-street, of Rome.
Ward, Joseph William, Birmingham, of the Birmingham School.

APOTHECARIES' HALL. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 23, 1868 : —

Heaps, John, Otley, near Leeds, Yorkshire.
Orfeur, Charles Howard, Norwich.
Williams, Essex Thomas, Penberry, St. David's.

The following gentleman also on the same day passed his First Examination : —

Robertson, Frederick, Guy's Hospital.

At the Preliminary Examination in Arts, held at the Hall on January 24 and 25, thirty-five candidates presented themselves, of whom seventeen were rejected, and the following eighteen passed, and received certificates of proficiency in general education :—

Addiss, Philip.
Dalgliesh, A. C.
Foster, Alfred
Furnivall, Penn.
Garrett, John.
Grogono, Walter Albert.
Hawthorne, W. C. F.
Jackson, G. E. C.
Mackenzie, F. C.
Murdoch, Donald.
Palmer, T. H.
Williams, B. H.

CHOLERA IN NEW YORK.—We regret to learn that the Hamburg ship *Lessing*, is now in quarantine at New York. A hundred and five deaths from cholera had occurred during the voyage.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARNISON, W. C., M.D.—Surgeon to the Newcastle-on-Tyne Infirmary.

ATCHERLEY, JNO., L.R.C.P. Edin., M.R.C.S. Eng., L.F.P.S. Glasg., Honorary Surgeon to the South Dispensary.—Medical Inspector of Seamen to the Port of Liverpool.

BUSHELL, STEPHEN WOOTTON, B.Sc., M.D. Lond.—Physician to her Majesty's Legation in China.

FAIRBANK, F. R., M.D., L.R.C.P.—Medical Officer of Health for Lynton and Lynmouth, North Devon.

FARR, Dr. SEPTIMUS B.—Certifying Surgeon under the provisions of the Factory Act for Hemel Hempstead and neighbourhood.

FLEMING, EBENEZER, M.D., L.R.C.S.E.—Certifying Factory Surgeon for the district of Stranraer.

HOLDERNESS, W. B., M.R.C.S.—House-Surgeon to St. George's Hospital.

IRVINE, J. W., L.R.C.S. Edin., L.S.A. Lond.—Senior Medical Officer to the West Derby Union Hospital, *vice* Dr. J. J. Flinn, resigned.

LAIDLOW, W. G., M.C. and M.B. Glasg.—Resident Assistant Medical Officer to the West Derby Union Hospital.

SANKEY, R. H. HEURTLEY, M.R.C.S.—Superintendent and Medical Officer of the County Asylum, Littlemore, near Oxford, on the resignation of Mr. William Ley.

STEWART, A., M.B., C.M.—Resident House-Surgeon to the Greenock Infirmary.

BIRTHS.

CHALDECOTT.—On January 21, the wife of T. A. Chaldecott, M.D., of Beomond, Chertsey, of a son.

KIRBY.—On January 20, at 18, Cambridge-terrace, Hyde-park, the wife of Dr. T. C. Kirby, of a son.

PHILPS.—On January 24, at Lee-park-house, Queen's-road, Peckham, the wife of P. G. Philps, M.R.C.S., of a son.

PICK.—On January 26, at 5, Bryanston-street, Portman-square, the wife of Dr. E. Pick, of a son.

SECCOMBE.—On January 25, at Serrington Lodge, King's Lynn, the wife of J. T. Seccombe, M.D., of a daughter.

DEATHS.

BEITH, R., M.D., Deputy-Inspector-General of Hospitals and Fleets, at the R.N. Hospital, Plymouth, on January 22.

BERNARD, W. R., M.D., at Cheltenham, on January 27, in his 76th year.

BLOXAM, R. W., M.D., F.R.C.S., at Ryde, Isle of Wight, on January 10.

DAVY, J., M.D., F.R.S., at Lesketh How, Ambleside, in his 78th year.

MAHONEY, M. M., M.D., Inspector-General of Hospitals, at No. 1, Walpole-street, Royal Hospital, Chelsea, aged 77.

MINNOCH, A., Surgeon R.N., at Edinburgh, on January 20.

THOMPSON, S., M.R.C.S.E., of Mile-end-road, on January 15, aged 30.

TICKELL, W., L.R.C.P., M.R.C.S.E., at the Lodge, Higher Erixham, Devon, on January 16, aged 78.

WATTS, H., M.D., of Grosvenor House, Eastbourne, aged 43.

WILSON, A. M., L.F.P. and S. Glas., of Mauchline, Ayrshire, on January 14, aged 32.

VACANCIES.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon.

CHESHIRE LUNATIC ASYLUM.—Assistant Medical Officer.

INFIRMARY FOR CONSUMPTION, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Hastings Union.—Mr. Frederic Ticehurst has resigned the First District; area 3817; population 14,004; salary £150 per annum. Also the Workhouse : salary £50 per annum.

Stow Union.—Dr. Mumford has resigned the Sixth District; area 10,966; population 3458; salary £65 10s. per annum.

APPOINTMENTS.

Carnarvon Union.—Robert A. Jones, M.R.C.S.E., L.S.A., to the Llanidan District.

Doncaster Union.—George G. Phillips, M.R.C.S.E., L.S.A., to the Tickhill District.

East Ward Union.—William Watson, L.F.P. and S. Glas., to the Kirkbythore District.

New Forest Union.—Henry Maturin, M.R.C.S.E., L.S.A., to the Fawley District.

Neckaren Union.—George Hother, M.R.C.S.E., L.S.A., to the Third District.

Seaton Union.—William Birtwhistle, M.R.C.S.E., L.S.A., to the Hessle District.

Stockton Union.—Charles V. Walker, M.R.C.S.E., L.S.A., to the Second District. Thomas Fuller, M.R.C.S.E., L.S.A., M.D. Aber., to the Third District and the Workhouse.

Stockton Union.—Frederick Dale, M.D. Edin., M.R.C.S.E., to the Yarm District.

DR. JOHN DAVY, F.R.S.—This distinguished Physician and physiologist died on January 24 at his residence, Ambleside, in the 78th year of his age. He was the brother of the celebrated Sir Humphry Davy, Bart., President of the Royal Society. We hope to furnish a more extended notice of Dr. Davy in our forthcoming number.

Mr. John Hilton, F.R.S.—This gentleman, who so worthily occupies the chair as President of the Royal College of Surgeons, and whose public appointments have always been inaugurated with great hospitality, has just issued invitations to the principal officers of several scientific institutions, as also to many Physicians and Surgeons, to a banquet at the Albion Tavern, and has happily selected the anniversary of the birth of John Hunter as the day on which to receive his distinguished guests. The Hunterian Oration is now delivered biennially; and as no address will be delivered this year, Mr. Hilton has no doubt selected this occasion as one on which he will be surrounded by so many who, like himself, have proved themselves worthy disciples of the founder of the Hunterian Collection.

King's College Medical Society.—At a meeting of this Society on Thursday, the 23rd ult., Dr. Playfair, President, in the chair, Mr. Rowling read a most valuable and highly interesting paper on the subject of Lying-in Hospitals. The author gave a general review of the arguments for and against the establishment of Maternity Hospitals, and referred especially to the history of the Nightingale Ward in King's College Hospital. Mr. Rowling deserves very great credit for the masterly manner in which his paper grasped the whole subject, for its clearness of statement, and for the numerous and valuable statistics with which it was illustrated. They evince great ability and industry on the part of its author. An interesting discussion followed, in which Drs. Priestley, Playfair, Kelly, Kempthorne, Yeo, Wilcox, Trevor, May, etc., took part.

University of Cambridge.—Scholarships and Exhibitions for Natural Science in Trinity and St. John's Colleges.—An examination in Natural Science will be held in Trinity College during next Easter week, and one foundation scholarship at least (of the value of about £80 per annum, tenable for five or six years) will be obtainable by adequate proficiency in that subject. The foundation scholarships of this College are open to all undergraduates of the College in the first, second, and third years of their residence, and to those of other colleges at Cambridge or Oxford in the first year of their residence. The names of candidates who wish to be examined in Natural Science must be sent in to the Master not later than Wednesday, March 18, together with the subject in which each candidate is prepared to be examined. At St. John's College an examination will commence on Tuesday, April 21, 1868, at 9 a.m.; and, besides two scholarships of £70 per annum and two of £50 per annum for Classics and Mathematics, there will be offered for competition an exhibition of the value of £50 per annum, tenable for three years, for proficiency in Natural Science; Chemistry, including practical work in the laboratory; Electricity, Heat, Light. The candidates will also have the opportunity of being examined in one or more of the following subjects—Geology, Anatomy, Physiology, Botany—and they may, if they think fit, offer themselves for examination in any of the classical and mathematical subjects; but excellence in some single department will be specially regarded. These scholarships and exhibitions are open to all persons, whether they be students in the University or not, who have not yet commenced residence in the University, or who are in the first term of their residence. Further information is obtainable from the tutors of the respective colleges.

Sea-Captain Doctors.—The Duke of Richmond's Shipping Act having come into force, we find that the Board of Trade Inspector has been very busy in the supervision of his antiscorbutics. Already this official has examined and passed nearly 1000 gallons of lemon and lime-juice, which has been bottled for the use of the crews of merchant ships. We need not say, that, though we consider the step one in the right path, we fear that the results will not justify the confidence inspired in the heads of departments. That the supply of lime-juice, unsupplemented by a proper provision of vegetable diet, pure water, and clean forecastles, will remove scurvy, we are by no means prepared to admit. However, we approve of the move *quantum valeat*. In the meantime, what is to be said as to the efficiency of the sea-captains to physic their crews? Medicine chests will, of course, be placed on board, and the Board of Trade "Medical Guide" will be in every cabin locker; but who is to judge as to the quality of the drugs? The captain or proprietor will naturally purchase the medicine chest where it can be procured cheapest. Unconscientious chemists are occasionally to be found. Low-priced medicine-chests will be supplied, and how will it fare with poor Jack? We put the question in all seriousness.

Odontological Society of Great Britain.—At the annual general meeting of this Society, held January 13, 1868 (the President, G. A. Ibbetson, Esq., in the chair), the following gentlemen were elected as Officers and Councillors for the year 1868:—President: James Parkinson, Esq. Vice-Presidents: (resident) H. J. Barrett, Esq.; R. Hepburn, Esq.; Arnold Rogers, Esq.; (non-resident) E. Parkinson, Esq. (Brighton); S. L. Rymer, Esq. (Croydon); P. Orphoot, Esq. (Edinburgh). Treasurer: W. A. Harrison, Esq. Librarian: J. B. Fletcher, Esq. Honorary Secretaries: (ordinary) J. Drew, Esq.; Charles James Fox, Esq.; (for foreign correspondence) Charles Rogers, Esq. Councillors: (resident) R. T. Hulme, Esq.; A. Coleman, Esq.; A. J. Woodhouse, Esq.; G. Gregson, Esq.; C. Vasey, Esq.; E. Sercombe, Esq.; E. Saunders, Esq.; A. Hockley, Esq.; J. Walker, Esq.; (non-resident) N. King, Esq. (York); C. D. Roberts, Esq. (Ramsgate); R. Ransom, Esq. (St. Leonards); H. Campion, Esq. (Manchester); H. Morley, Esq. (Derby).

Paris Soup-kitchens.—The Emperor has just bought 600 lbs. of Liebig Company's extract of meat, which the Prefect of Police distributes among the soup-kitchens of Paris. Every pound contains the material for about 180 large cups of excellent beef-tea. This is a real boon conferred upon the poor families who are supplied from the soup-kitchen.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Young Subscriber.—You had better apply to some respectable attorney.

Croydon.—Next week.

M.—Hippocrates said that judgment was difficult—that must be our excuse. In the absence of local cause, we should try two small doses of colchicum, warm aperients, and potass with a bitter.

An abstract of Dr. Buchanan's Lecture "On The Diagnosis of Lung Disease in Children," and the letter of Dr. C. R. Francis on "Cholera," are unavoidably postponed until our next.

St. Leonards.—Messrs. Reading's invalid carriages are well worth inspection. They seem to us to be the most perfect vehicles for conveying the sick we have ever seen. Their place of business is in Ridinghouse-street.

B. C.—We noticed Mr. Dixon's work because it contains matter of interest to Medical men. As for its fitness for the drawing-room table we gave no opinion. We do not profess to select books for the ladies' boudoir (willing and competent though we think we are for the task), simply because it is not the province of a Medical journal.

A Student, Guy's.—An application to the President will no doubt admit you to Professor Huxley's lectures.

F.B.—The bite of the viper is seldom fatal in this country; there was one which occurred many years ago in St. Bartholomew's Hospital, under the care of the late Mr. Vincent.

An Old Member.—There will be no Hunterian Oration on the 14th. The banquet is paid for partly out of the "Hunterian Fund," amounting to £1684 4s. 4d., and partly out of the College funds.

Histologist.—The collection can be seen on Wednesdays, on application to the Conservator.

Mr. Manning, J.P.—The late Dr. Paris, in his "Pharmacologia," said that "credulity, although it is nearly allied to superstition, yet differs from it widely. Credulity is an unbounded belief in what is possible, although destitute of proof, and perhaps of probability; but superstition is a belief in what is wholly repugnant to the laws of the physical and moral world."

Absolon *versus* Statham.

The following contributions have been received since the last notice:—

	£	s.	d.		£	s.	d.
Anonymous	5	5	0	J. W. Lloyd, Esq.	1	1	0
Dr. Baumler	0	10	6	J. Monrice, Esq.	0	10	6
Dr. Camps	2	2	0	R. Minns, Esq., Truro ..	0	10	6
George Frost, Esq., Manchester	1	1	0	Robert Risdon, Esq. ..	1	1	0
George Gregson, Esq. ..	1	1	0	W. B. Tuck, Esq., Truro ..	1	1	0
				George Weaver, Esq ..	1	1	0

Amount already received, £258; Mr. Statham's expenses, between £600 and £700.

The subscription list will be closed on February 20. Gentlemen who have promised, or who intend to assist, are therefore requested to send their contributions, on or before that date, to E. Saunders, Esq. (Hon. Treasurer), 13A, George-street, Hanover-square, London, W., or Dr. Cholmeley (Hon. Sec.), 40, Russell-square, London, W.C.

Carbolic Acid as a Caustic

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE

Sir,—Having employed carbolic acid for a variety of purposes, it has proved of singular benefit in the treatment of venereal ulcers. Applied in the liquid form with a camel hair pencil, the surface of the sore is instantly rendered white, and the pain is much less than with the nitrate of silver. The ulcer heals sooner than by the ordinary method, the chief advantage being that the application of the acid is not followed by a thick scab such as results from the nitrate. I am, &c.

Aberdeen, January 28. William Reid, M.D.

The Fever at Terling.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—When reading your remarks on the fever-stricken village of Terling, it occurred to me that a few hints from my experience during the famine fever of 1847 may be of use to the board of guardians. Thirty a week were buried from the Hospital at which I then had charge in Newport (Mon.), and I believe this occurred for three or four weeks before I joined the so-called guardians to build a shed in a large field on the heights outside the town. By this separating and by keeping the typhus and typhoid cases apart from each other, observing the same caution among the cottagers, keeping the sick well apart, enforcing ventilation, cleanliness, good nursing, pure wine, pure water, milk-whey, light food, the fever was quickly checked, the first week of this prescription to nine deaths, second to three, etc. The *Quarterly Journal* for this time twenty years past, has many able articles on the various forms of fever, which are worthy of perusal by the Medical staff at Terling.

Brighton, January 29. I am, &c. THOS. ANY

Dr. Brunton's Otoscope.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your number for the 25th inst., there is described a "new instrument for demonstrating the membrana tympani, the ossicula auditorius," by Dr. John Hinton, late Aural Surgeon to Guy's Hospital. Your readers will have the kindness to look at the 617th page of the *Lancet* for December 2, 1865, they will there find that Mr. Hinton's so-called new instrument has been invented and described by me. It was invented in the spring of 1861, and made for me by James White, Esq., of Buchanan-street, Glasgow, optical and mathematical instrument maker to the University, and afterwards lent to "my friend Dr Anderson," of Glasgow; exhibited to the Medical Society of London, and at their President's *conversazione* in Hanover-square Rooms, and, as I have said, published in the *Lancet*. The otoscope is kept by most of the London instrument makers, as well as by Messrs. Weiss and Collins, of Oxford-street, Messrs. Browning of Holborn, make for me here. After describing it in the *Lancet*, I conclude by saying, "The principle of the instrument can be adapted in many ways." I have used the otoscope with advantage in examining the nasal passages.

Several years ago, I mentioned to one of our leading London Surgeons that the urethra, uterus, eye, &c., could be easily examined by a slight modification of its construction, and only the other day I was shown Dr. Warwick's "endoscope," which is the same instrument as mine, with the addition of a large convex lens fitted into the mouth of the light concentrator. I do not consider Mr Hinton's instrument any more a new instrument than a binocular microscope is a new microscope; there is merely in Mr. Hinton's an adaptation to the eye-piece. As to its advantages, I doubt them, for there is of necessity a loss of light by transmission through the prism; and secondly, Mr. Hinton's, which is much heavier than mine, cannot be so easily used. I have never had any difficulty in demonstrating the membrane, etc., to a second or third person, as one or two trials will enable any one with ordinary capabilities to master the use of the otoscope, and thereby to see for himself. I am, &c.

207, Caledonian-road, Jan. 28. JOHN BRUNTON, M.A., M.D.

Another Warning.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—An apology with my name appended having appeared in your advertising columns on Saturday last, I shall esteem it a favour if you will find space for the following statement of the facts which led to the apology being made. I ask this not merely for personal reasons, but because it may serve to put some of my Professional brethren on their guard, and show them the dangerous ground on which they tread if they receive a patient whose mental calibre is somewhat decidedly below average, although they may feel convinced, and others (usually admitted to be peculiarly fitted to form an opinion on mental cases) may endorse their opinion that the patient is not a lunatic.

In May, 1866, Dr. Williams, of Cheltenham (many years Superintendent of the Gloucestershire Lunatic Asylum), called upon me and asked if I would receive a lady as a resident patient. I questioned him minutely as to the nature of the case, and he assured me that in his opinion I might receive her with perfect propriety. It was arranged that she should come to Malvern, and I should have an interview with her. I saw her, formed the same opinion of her case as Dr. Williams, and so admitted her into my house. In November, 1867, two Commissioners in Lunacy called, and, in my absence, saw the lady; they pronounced her to be "incoherent;" afterwards Dr. Sankey, a temporary Commissioner, called, and saw her in my absence. I then thought it right to seek another and an independent opinion, and Dr. Williams, of Worcester, the Visiting Physician to the Droitwich Asylum, saw her, and declared her not a lunatic. The case then stood thus:—Dr. Williams and Dr. Collidge, of Cheltenham, declared she was not lunatic when she came to me, and Dr. Williams, of Worcester, that she was not so within a short period subsequent to the visits of the Commissioners. Copies of their written certificates, together with my statement of the case, were forwarded to the Commissioners, and they replied, offering me the choice between a public apology and a prosecution. After much consideration, and most unwillingly, I elected to apologise, not as fearing an adverse verdict, nor much influenced by the harass and expense which must attend a trial, but feeling that I was acting in the manner most conducive to the interests of my patient, and also that thus only could her parents be spared the pain of having their daughter's state made the subject of investigation before a public tribunal.

The Lynches, Malvern, Jan. 28. I am, &c. J. A. CORBETT.

The New Vaccination Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Although I strove to get several amendments made in this measure, but without much success, I shall, now that it has become law, do my best, in common, I believe, with all other Medical Officers of Health, to make it as useful as possible. Should it lead to the very general appointment of vaccination officers, it will certainly do good, because this will be a step towards the appointment of the registration officer, which the Registrar-General and Dr. Farr are so desirous of securing. With this important end in view, I think the Profession should strive to get proper men nominated as vaccination officers. It is to be regretted that the letter from the Medical Department of the Privy Council to the Poor-law Board on this subject, which you published on the 18th inst., did not give the duties of this officer in more detail, although it indicated a district registrar as generally the most proper person for the post. I know one committee of guardians who, after carefully setting out the duties of the office, came to the conclusion that a district registrar is not the most eligible man for the appointment, because, having himself important duties imposed upon him by the Act, it would not be wise to constitute him an inspector over himself and co-registrars, the Doctors, and every parent in his union; and, secondly, because, being generally engaged in trade, he would not have the necessary time and attention to give to its duties.

The duties of the office I take to be—

1. To inquire carefully into the alleged or apparent cases of default, so as to enable the guardians to prosecute the defaulters every half-year. (Sect. [illegible])

2. To enforce, if possible, the inspection of all vaccinated children on the seventh day. (Sects. 19 and 29.)

3. To serve a legal notice, in accordance with Sect. 31, upon parents, etc., who may not have received notice from the registrar.

4. To keep himself constantly informed of the progress of vaccination in his district as compared with the local birth register. (Sect. 23.)

Some boards may instruct him to take legal proceedings; but as most boards have a solicitor, acting as clerk and superintending registrar, I think the initiation of legal proceedings had better be entrusted to him; certainly not to a district registrar, who may be a defaulter himself.

These duties, I think, require a man of education, and of sufficient Medical knowledge to distinguish a vaccination from any other scar, and a cow-pox from any other vesicle or pustule. I am disposed to think that where there is a Medical Officer of Health, he would be the most useful man to appoint. This would remedy what appeared to me a serious defect in the [illegible] of the Medical Officers of Health of the power to [illegible] of the [illegible] Boards, under an Act pas ed in 1861.

I hand you a copy of a letter I addressed to the Poor-law Board in reference to a point of some importance to the public vaccinators.

I am, &c. SEPTIMUS GIBBON.

13, Finsbury-square, E.C., January 27.

(Copy.)

"To George Shaw Lefevre, Esq., M.P., Secretary to the Poor-law Board.

"Sir,—Your Right Honourable Board will shortly have to approve the compensation [illegible] under the Act of 1867. During the passage of the Bill through Parliament efforts were made by the Medical Profession to abolish or relax some of its restrictive and coercive provisions; but owing to political circumstances rather than to the intrinsic merits of the measure, only one relaxation was effected—viz., an addition to Clause 6 which enables the Poor-law Board to sanction payment for vaccinations done elsewhere than at an appointed station. The intention of the framers of the Bill, as may be gathered from the wording of Clauses 6, 16, 17, and Schedule A, was strictly to confine all public vaccinations to fixed times and stations, but the Legislature, by the above alteration, has left it in the discretion of your Board to recognise also what may be termed occasional and domiciliary vaccinations. As I have had some experience in the duties of a public vaccinator, both as assistant to a public vaccinator in the country and as Medical Officer of Health in a metropolitan district, I trust you will not think that I am presuming too far on your well-known courtesy and impartiality if I briefly state what I conceive are the advantages and disadvantages of these respective modes of effecting the vaccination of the poorer classes.

"In favour of stational vaccination it is argued that vaccination ought to be done from arm to arm with quite recent and liquid lymph. Liquid, I admit, is more quickly and more certainly inserted under the skin than dry lymph, which requires to be previously moistened; but the appliances now in use—viz., 'the stoppered phial' and the 'capillary tube'—enable us to preserve lymph in its fluid state for any length of time. In arm-to-arm inoculation there is the risk of a careless or unskilful operator transferring some of the blood and tissue, as well as the pure lymph, from one child to another, an accident which may be followed by very serious consequences, whereas the use of lymph from a fine capillary tube is a great security against any such misadventure, because the tube will only admit pure lymph, and thus acts like a strainer in preventing any admixture of 'blood,' 'pus,' or 'animal tissue.' With the exception that liquid is more readily inoculated than dry lymph, I believe the allegations made in the House of Commons and elsewhere against the use of preserved, stale, and dry lymph have little, if any, foundation in fact. Vaccine matter, like the seed of a plant, if properly kept, preserves its vitality for years. I have myself known it to be efficacious after the lapse of twelve years and a voyage to Australia and back. Another reason in favour of stational vaccination is, that it may deter any except the neediest persons from seeking vaccination at the public expense. This, however, is not the intention of the Act, or it would not have specially exempted public vaccinees from the stigma, etc., of parochial relief (Clause 26), and have accorded them a solid bonus by freeing them from the trouble of keeping, writing out, and sending certificates, or paying a penalty of twenty shillings for each case of default (Clause 29 and Notice to Schedules). Unless the provision for the re-inspection of the children at the stations on the seventh day (Clause 17) be better enforced by penalties under this Act than the late Act, it will be as impossible to vaccinate from arm-to-arm as it is now at most stations, because very few parents have been found to bring their children for such re-inspection; and, inasmuch as the new Act allows 'a reasonable excuse for the neglect' to exempt from the fine, which the old Act did not, I think few persons at all conversant with [illegible] proceedings of magistrates will have any faith in these penalties ever being enforced. Against stational vaccination it may be said that they have been long tried under the previous Acts, and all, except at the residence of the vaccinator, have proved a failure. If domiciliary vaccination, bad as it is said to be in theory, is in practice good enough for the nobility, gentry, and middle classes of society, the Poor-law Board would surely be justified in holding that it was good enough for the labouring class.

"Inasmuch as each man will know best how to adapt his course to the circumstances of his own locality, would it not be sound policy in the Poor-law Board to repose confidence in the judgment and discretion of their public vaccinators, and allow them to vaccinate either at stations or from house to house, as they may find most expedient? An additional and strong reason for not lessening and limiting the action of the public vaccinators as [illegible] will, I think, be found in the fact that now by Clause 11 the vaccination of each district is absolutely committed to the public.

"I respectfully submit these views and arguments to the consideration of the Poor-law Board, and I feel confident that they will look on the [illegible] of this important Act in a serious and earnest manner, and [illegible] for the prevention and [illegible] the complete failure of the Act.

"Apologising for the length and other imperfections of this letter, I have the honour to be, Sir,

"Your most obedient servant,

"SEPTIMUS GIBBON, Medical Officer of Health."

COMMUNICATIONS have been received from—

Dr. A. B. Shepherd; Dr. B. W. Richardson; Mr. J. Chatto; Mr. H. Smith; Dr. J. B. Yeo; Mr. Hutchinson; Dr. Mayo; Sir W. R. Wilde, M.D.; Dr. Eastlake; Mr. J. B. Thomson; Dr. E. L. Dixon; Dr. Brakenridge; Dr. C. Berrell; Mr. J. C. Sutton; Dr. W. Bruce; Mr. W. B. Holderness; Mr. W. J. Smith; Mr. S. A. Agar; Dr. T. R. Fraser; Dr. J. A. Cooksey; Mr. G. H. Roberts; Mr. C. J. Fox; Dr. Dudfield; Dr. Maysmor; Mr. R. Richardson; Dr. Brunton; Dr. Fleming; Mr. G. A. Rowell; A Young Subscriber; Dr. E. G. Wake; Dr. W. Carter; Dr. S. Gibbon; Mr. Haviland; Dr. Massy; Dr. W. Reid; Mr. W. J. Burgess; Dr. S. W. Bushell; Dr. Atcherley; Mr. J. W. Irvine; Dr. S. B. Farr.

BOOKS RECEIVED—

Transactions of the Odontological Society, Vol. V.—Delamere's Wholesome Fare—Quarterly Journal of Psychological Medicine, No. 1—New York Medical Journal, Vol. VI., No. 3—Duncan's Researches in Obstetrics—Addison on the Coexistence of Two Species of Inflammation—Ransome and Royston's Report on the Health of Manchester—Dunn on the Phenomena of Life and Mind—Eliot and Storer's Manual of Inorganic Chemistry—Simpson's Proposal to Stamp out Small-pox—Morrell on the Sanitary Question—Hanover-square, No. 4—Leach's Ship Captain's Medical Guide—Dr. Gairdner on Money-getting—Coulson on Stone in the Bladder—Thompson on Diseases of the Prostate, third edition.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 25, 1868.

BIRTHS.

Births of Boys, 1157; Girls, 1166; Total, 2323.
Average of 10 corresponding weeks, 1858-67, 2 04·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	717	678	1395
Average of the ten years 1858-67	781·1	778·4	1559·5
Average corrected to increased population..	..	..	1716
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	10	5	3	6	4	5	..
North ..	618,210	3	9	5	..	8	6	1	..
Central	378,058	2	6	3	..	9	3	3	..
East ..	571,158	7	8	2	..	16	9	2	..
South ..	773,175	8	9	7	2	13	9	2	..
Total ..	2,803,989	21	42	22	5	52	31	13	..

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 25, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Jan. 25.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Jan. 25.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2323	1441	1395	47·7	26·3	37·4	2·03	205
Bristol (City) .	167487	35·7	124	75	‡87	47·0	26·0	38·1	1·07	108
Birmingham (Boro')	352296	45·0	264	171	163	47·9	27·5	38·0	1·01	102
Liverpool (Borough)	500676	98·0	402	290	304	45·6	27·7	37·2	0·45	45
Manchester (City) .	366835	81·8	270	208	‡267	46·0	26·0	37·1	0·85	86
Salford (Borough) .	117162	22·7	79	59	62	45·4	25·3	36·7	0·86	87
Sheffield (Borough).	232362	10·2	174	122	118	46·5	27·0	36·7	0·48	48
Bradford (Borough)	108019	16·4	123	55	64	..	..	..	..	..
Leeds (Borough) .	236746	11·0	186	120	105	50·0	23·5	36·6	0·58	59
Hull (Borough) .	108269	30·4	105	50	47	45·0	25·0	35·0	0·32	32
Newcstl-on-Tyne, do.	127701	23·9	92	68	65	44·0	28·0	34·8	0·47	47
Edinburgh (City) .	177039	40·0	122	85	106	43·7	25·0	34·9	1·10	111
Glasgow (City) .	449868	88·9	336	262	264	55·1	22·5	34·4	2·14	216
Dublin (City and some suburbs) .	319985	32·8	219	‡157	227	52·0	31·4	40·1	0·50	51
Total of 14 large Towns . . .	6391080	34·7	4819	3163	3274	55·1	22·5	36·7	0·91	92
					Week ending Jan. 18.	Week ending Jan. 18.				
Vienna (City) .	(1863) 560000	..	..	..	317	..	..	§29·3	..	..

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 44·9°.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·375 in. The barometrical reading increased from 28·79 in. at the beginning of the week to 29·92 in. by 10 a.m. on Sunday, January 19, decreased to 28·85 in. by 5 p.m., increased to 28·99 in. by 11 p.m. on the same day, decreased to 28·87 in. by 6 a.m. on the 20th, increased to 29·55 in. by 9 a.m. on the 21st, decreased to 28·86 in. by 7 a.m. on the 22nd, increased to 30·17 in. by 9 a.m. on the 24th, decreased to 29·45 in. by noon on the 25th, and increased to 29·67 in. at the end of the week.

The general direction of the wind was variable.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·375 in.
Mean temperature	37·4
Highest point of thermometer	47·7
Lowest point of thermometer	26·3
Mean dew-point temperature	32·8
General direction of wind	Variable.
Whole amount of rain in the week	2·03

APPOINTMENTS FOR THE WEEK.

February 1. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Professor Rasoe, "On the Non-metallic Elements."

3. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Epidemiological Society, 8 p.m. Dr. Barraut, Health Officer, Port Louis, "Mauritius, its Medical Topography and an Account of the Fever of 1867." Dr. Henry Rogers, Senior Assistant-Surgeon, Civil Hospital, Port Louis, "Notes on the Epidemic Malarial Fever in Mauritius in 1866-1867." Inspector-General Lawson, "Further Observations on the Influence of Pandemic Waves in the Production of Fever and Cholera." Presentation of large Map to the Society illustrating Inspector-General Lawson's views.

Hospital for Skin Diseases, 8½ p.m. Lectures on Skin Diseases and Syphilis, by Mr. Hutchinson—Lecture 9, "Diseases of Glands and of Appendages, Pigment Alterations, etc."

Odontological Society, 8 p.m. W. Oliver Chalk, Esq., M.R.C.S., "On Cases of Necrosis and Caries of the Lower Jaw," with Preparations by C. Vidler, Esq.

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Royal Institution, 2 p.m. General Monthly Meeting.

4. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Hospital for Skin Diseases, 8½ p.m. Lectures on Skin Diseases and Syphilis, by Mr. Hutchinson—Lecture 10, "General *Résumé* of Principles of Treatment; Conclusion."

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

5. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Obstetrical Society of London (Council Meeting, 7½ p.m.), 8 p.m. Dr. Tyler Smith, "Two Cases of Inversion of the Uterus, with Remarks." Dr. Playfair, "On Cardiac Apnœa after Delivery." Dr. Copeman, of Norwich, "Cases exemplifying some of the Difficulties encountered in determining the Existence of Pregnancy."

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. Meeting.

6. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. Fuller will open a Debate "On the Doses and Actions of Medicines."

Royal Institution, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

7. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Royal Institution, 8 p.m. Prof. Huxley, "On the Animals intermediate between Birds and Reptiles."

Western Medical and Surgical Society, 7½ p.m. Council Meeting.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture VIII.—Part II.

TURNING CONTINUED—SPONTANEOUS EVOLUTION—MECHANISM OF, IN THE FIRST SHOULDER-PRESENTATION, DORSO-ANTERIOR.

The cause of the difficulty that opposes delivery in shoulder-presentation is obvious. The pelvic canal is too narrow to permit the child to pass freely when its long axis lies across the entry. On looking at the diagram (Fig. 39), we see the shoulder driven into the pelvis, forming the apex A of a triangle whose base B C is considerably longer than E F, the transverse diameter of the pelvic brim. To overcome this difficulty, Nature struggles to shorten the base B C. To a certain extent she generally succeeds, and occasionally she succeeds completely.

Fig 39.

The uterus contracts concentrically, tending to shorten all its diameters, especially its transverse diameter. The axis formed by the trunk and head of the child, which go to make up the resisting base of the triangle, is flexible; therefore A and B admit of being brought nearer to each other. But, when the utmost approximation has been obtained in this manner, we still have the entire thickness of the head, equal to four inches, and only very slightly compressible, plus the thickness of the body, which, after all possible gain by compression is effected, is equal to at least two inches more, being an inch or more in excess of the available space in the pelvic brim. As a general rule, it may be stated that no part of the child, except a leg or an arm, can traverse the pelvis along with the head, the head alone being quite large enough to fill the pelvis.

One result of the great compression exerted by the concentric contraction of the uterus is to cause such pressure upon the chest and abdomen of the child, and so to compress the placenta and cord, that the child is asphyxiated and killed. The death of the child, leading to the loss of resiliency, will, after sufficient time, admit of a much further degree of compression, and then, possibly, the child may be so doubled up and moulded that it may enter the pelvis.

The condition, therefore, of spontaneous evolution is the death of the child. If not already dead at the commencement, the child will almost certainly, if of medium size or larger, be killed in the course of the process. Herein lies a great distinction between spontaneous evolution and spontaneous version. A living child is favourable to version, a dead one to evolution.

Spontaneous evolution from the first position proceeds as follows:—At *first* we have the oblique position of fœtus and uterus represented in Figs. 36 and 37 (see Lecture VIII., Part I., *Medical Times and Gazette*, January 25): the head is in one iliac fossa, the trunk and breech in the other. *Secondly*, strong flexion of the head upon the trunk, and descent of the shoulder into the pelvis (see Figs. 39 and 40). At this stage,

Fig. 40.

Fig. 40 shows the [illegible] of the child after the escape of the membranes. The head is strongly flexed upon the trunk, forming together the base of a wedge, which is about to enter the brim. The line E A represents the line of propulsion, by which proceeding the base of the opposing wedge is depressed. The head thus being put aside, the axis of the trunk will easily be brought into coincidence with the axis of the brim, permitting delivery

commonly, the membranes burst, and the arm falls into the vagina, the hand appearing externally. *Thirdly*, increased descent of the shoulder and protrusion of the forearm, doubling with compression of the body, so that the breech is driven into the pelvis; as soon as this takes place a movement of rotation succeeds (see Fig. 41). The inclined planes of the ischia direct the breech backwards into the sacral hollow; this backward movement of the trunk throws the head forwards over the symphysis pubis; from transverse, as the child was above the brim, it now approaches the fore-and-aft direction, the right side of the head, near its base, is forcibly jammed against the symphysis, the side of the neck corresponding to the presenting shoulder is fixed behind the symphysis pubis, and the shoulder itself is situated under the pubic arch.

Fig. 41.

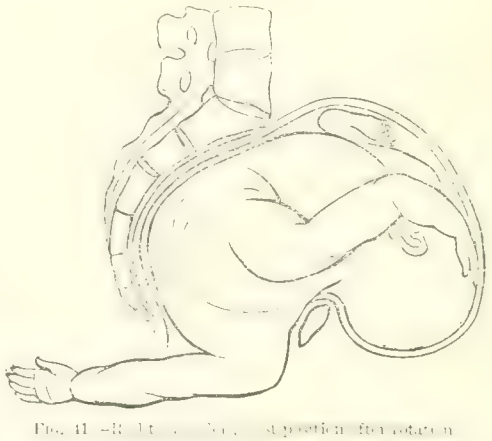

Fig. 41.—[illegible] stage of rotation

Fourthly, the expulsive force continuing, can only act upon the breech and trunk, the shoulder being absolutely fixed;

the trunk bends more and more upon its side, the presenting chest-wall bulges out, and makes its appearance under the pubic arch. Then, lastly, the movement in a circle of the body round the fixed shoulder is executed. The side of the

FIG. 42.

FIG. 42.—Right shoulder; first position during movement in circle around symphysis

trunk and of the breech sweep the perinæum and concavity of the sacrum; the legs follow. When the whole trunk is born, the movement of restitution is effected, the back turning forwards, the belly backwards. The head escapes from its forced position above the symphysis, the chin turns downwards, the occiput looks upwards to the fundus uteri, the nucha is turned to the right foramen ovale. It enters in the left oblique diameter, it takes the rotation movement in the pelvis, the occiput coming under the pubic arch; then the movement in a circle is executed. The chin first appears, followed by the mouth, nose, and forehead, which successively sweep the perinæum. The occiput, which had been applied to the symphysis, comes last. So strict is the subjection throughout this process to the laws which govern the mechanism of ordinary labour, that Lazzati(a) does not hesitate to describe spontaneous evolution as the natural delivery by the shoulder.

ORIGINAL COMMUNICATIONS.

ON THE

RESULTS OF EXCISION OF THE KNEE AT KING'S COLLEGE HOSPITAL DURING THE LAST YEAR.

By HENRY SMITH, F.R.C.S.,
Assistant-Surgeon to the Hospital (b)

(*Concluded from page* 117.)

Case 7.—H. W., aged 8, was admitted under the care of Mr. Partridge in June, 1867, with a contracted limb, the left knee greatly swollen, exceedingly painful, and having the elastic feeling so characteristic of pulpy degeneration of synovial membrane. This boy remained in Hospital for several weeks, but as he did not improve, Mr. Partridge excised the knee-joint on July 24. The tibia was found to be partially dislocated backwards, and the synovial membrane was greatly diseased. No bad symptoms occurred; rapid union took place, and the boy was discharged exactly eight weeks after the operation with a straight leg and a fibrous union between the bones.

Case 8.—E. W., aged 14, admitted under the care of Mr. Partridge in May, 1867. This boy's limb presented a most extraordinary appearance of deformity. The limb was contracted at the knee, the lower leg and foot twisted outwards in a most fantastic manner; the joint itself was much swollen and very painful, and the tibia was thrown backwards—in fact, the limb was a most useless and painful incumbrance to him. On July 24, Mr. Partridge excised the knee joint, which was pretty firmly anchylosed, but there was considerable ulceration of the bones and thickening of the synovial membrane. This patient suffered apparently a good deal from shock, the operation having been a long and difficult one. After he had rallied from its immediate effects, his pulse became very rapid, his face anxious and dusky, and there was considerable tenderness in the groin—in fact, except the premonitory rigor, the symptoms of pyæmia were well marked, and we all expected a fatal termination. However, he continued in a very shaky condition for a fortnight, wasting very rapidly, and symptoms of cerebral disturbance set in. He became most unruly, talking great nonsense, using bad language, dirtying his bed, and tearing off the dressings. During this time the pulse continued high, and the pupils widely dilated. He was carefully watched, and treated with good nourishment, stimulants, and quinine. The case fell under my care during Mr. Partridge's absence, and finding this curious mental condition, I blistered the nape of the neck, gave him large doses of bromide of potassium, and subsequently cod-liver oil. Shortly after taking this, he began to improve, picked up flesh, and became quite quiet and rational, and notwithstanding the difficulty in keeping his limbs quiet, the leg is in famous position, and the wound is nearly healed, and I doubt not we shall soon send him out of the Hospital. I cannot omit saying how much the success of this anxious case was owing to the extreme care and attention bestowed upon it by the House-Surgeon, Mr. Trevor. I have seen a case of a similar kind where a most lamentable failure occurred in consequence of the want of intelligence and care on the part of the attendant.

This case presents, in the first instance, the very type of condition so favourable for excision of the knee—irremediable deformity combined with extensive disease—and to save the limb and make it useful (as, I doubt not, it will be) must I think, be considered a grand triumph of Surgery. As to the state of the patient after operation for so long, it was very curious. I think he must have had some pyæmia, and probably the disturbance of the brain was either from the general blood poisoning or from some small deposit of pus in its substance.

Case 9.—A. H., aged between 20 and 30, was admitted, under Sir William Fergusson, in December, 1866, in the most wretched state of health, and the knee-joint thoroughly disorganised from long-continued disease. The operation of excision was performed January 12. There was found to be extensive disease both of bone and synovial membrane. There was also such great deformity of the limb that extreme difficulty was experienced in getting the limb into tolerable position after the operation. Notwithstanding this woman's extreme exhaustion, she began to improve after the operation, and was discharged on March 10, in order to get the benefit of country air. The wound was, however, by no means healed, and sinuses were discharging freely.

I lost sight of this case; in fact, I had reason to believe that the thigh had been amputated; but on inquiry I had the pleasure to receive a letter from her Medical attendant on October 12, in which he gave a very favourable report, saying that the girl had got quite fat; that she still retained her limb; that union was not quite firm, but much more so than he ever expected; several exfoliations of bone had occurred, and sinuses were not yet healed; shortening, two and a half inches. It is impossible to convey in words the extremely unfavourable condition of this girl for any operation; and the result, although as yet imperfect, shows how much may be done by attempts to save a limb.

Case 10.—D. B., aged 10, admitted under Mr. Wood, October 23, 1866, with disease of the left knee, which had been going on for seven months. The joint was contracted, the limb shortened; the joint was swollen, and several sinuses discharged matter. November 3: Mr. Wood excised the knee-joint. An abscess was found in each condyle of the femur, and the cartilages of the joint were destroyed; there was also gelatiniform degeneration of the synovial membrane. This patient went on favourably, and was discharged December 20 quite well.

Case 11.—J. M., aged 23, was admitted into King's College Hospital, under my care, July, 1867. His leg presented an

(a) "Del parto per la Spalla," 1867.

(b) Read before the Medical Society of London, October 21, 1867.

extraordinary amount of distortion. The whole limb was shortened and wasted, and much contracted at the knee. The joint was swollen, and a sinus on the inside led down to bare bone. There was great prominence of the lower end of the femur, and the head of the tibia was dislocated backwards and outwards. There was great pain on pressing the knee, and the limb was entirely a useless and painful incumbrance, and had been so for eighteen years. I excised the joint on August 3. The operation was a difficult one, as there was such great displacement of the bones; there was fibrous union at some parts, but on the inner side of the head of the tibia was a large ulcerated cavity connected with the sinus before mentioned. The limb was got into very fair position, and, by extreme care on the part of Mr. Trevor, has remained so; union is now nearly complete, and I doubt not we shall very shortly dismiss this man, who has suffered no more since the operation than if he had had his finger removed. I do not think I ever saw an instance where the value of excision was shown so completely as in this case. A perfectly useless limb, with an incurably diseased condition of the joint, has been changed into a member which promises to be of great utility and free from all disease.

Case 12.—E. T., aged 6, was admitted, under Sir W. Fergusson, in May, 1867, with extensive disease of the left knee of three years' standing. The girl was in a wretchedly strumous condition, worn down by disease. The operation of excision was performed June 22, most extensive disease being found in the knee joint. This case progressed very slowly, and, although the part operated on put on healthy action, a large abscess formed over the hip on the other side, and it appeared as though the joint was affected; but by careful treatment improvement took place; the child began to gain flesh; the abscess discharged less, and finally almost closed; and now at this present moment there is firm union at the knee, with little shortening, and the health is exceedingly good.

Case 13.—J. M., aged 23, was admitted into King's College Hospital, under Sir W. Fergusson, in July, 1867, with extensive disease of the left knee-joint. The limb was perfectly straight, and nearly stiff at the knee, which was painful, swollen, and riddled with sinuses. This man had been an inmate of the Hospital just a year previously; but as the limb was in good position for eventual recovery, he was recommended to go to the sea-side. He remained at Margate for some months, but returned to the Hospital without the least improvement whatever. Sir W. Fergusson excised the knee-joint on Saturday, August 10. On examination, the disease was found to be very extensive, there being deep ulceration of the bone on the outer condyle of the femur and corresponding head of the tibia, and other mischief. This patient did not have a single bad symptom, and as the limb was quite straight at the time of the operation, there was not the slightest difficulty in keeping it in good position. The patient is now in good health, and is able to move about on crutches, fibrous union at the knee having taken place, and, I doubt not, he will soon leave the Hospital.

Case 14, and last, is a boy of the name of Hendle, aged 14, under Sir William Fergusson, operated on November 21, 1866. There was most extensive disease of the knee-joint, with displacement of the tibia backwards and outwards. This case went on uninterruptedly well, and was discharged February 9. He was seen by our Assistant House-Surgeon, Mr. Willcox, at the Hospital last week, making good use of a firm and serviceable limb.

I have now furnished you with a plain unvarnished report of our experience of excision of the knee-joint during the last twelve months, and I think the result of this experience teaches us, in the first place, that the mortality attending this operation is not so great as it is generally supposed to be. Two fatal cases out of fourteen operations is as slight a mortality as can reasonably be expected after any severe Surgical proceeding. Next to this slight mortality, I may mention that these cases teach us how very slight is the shock of the operation. In most of the cases there was scarcely any, and in the two or three where the shock was noticeable there had been ample cause for it, either in excessive bleeding or in a very difficult and prolonged operation. These cases also teach us another fact, about which there has been much misapprehension—viz. the absence of great exhaustion and depressing effect on the constitutional powers by the long-continued discharges which occur from the wounds during the after-treatment. Now, in several of these cases the wounds healed in a great degree by the first intention, and in others where no such result could take place—as, for instance, where profuse bleeding occurred after the operation in my case—the patients did not seem to feel the depressing effect of the open wounds.

In conclusion, there is one important point to which I wish to call attention—that out of the whole fourteen cases there was not a single instance in which the operation was performed for a deformed condition of the knee alone: in every instance there was either extensive disease alone or a deformed and useless limb combined with more or less disease within the joint.

ON LATENCY OF OPTIC NEURITIS IN CEREBRAL DISEASE.

By J. HUGHLINGS JACKSON, M.D.,

Physician to the Hospital for the Epileptic and Paralysed, and Assistant-Physician to the London Hospital.

Mr. Hutchinson has drawn attention—Dec. 21, 1867, p. 670—to an observation I have made respecting the latency of optic neuritis, and I find, from your editorial columns of Jan. 5, that Dr. Clifford Allbutt's experience confirms it. So far as the observer is concerned, the discovery is a very small matter. Any Physician who will use the ophthalmoscope by routine must quickly discover the same fact. Yet the obvious deduction is really a very important one in practice. This is fairly embodied in the following quotation—italicised in the original—from a paper ("Observations on Defects of Sight in Diseases of the Nervous System") which I published in the *Royal London Ophthalmic Hospital Reports*, vol. iv. pt. iv. p. 403: "*It is, I submit, imperative, in all cases of severe cerebral disease, at all events in cases of an acute kind, to examine the eyes with the ophthalmoscope, whether the patient complains of defect of sight or not.*"

I should now make the statement much stronger by adding "*even if he affirm that he can see well, and if he read small type readily.*"(a) A patient, after an opthalmoscopic examination revealing optic neuritis, will sometimes, on being asked how long his sight had been bad, make a remark like this—"I didn't know there was anything the matter with it"—and may be able to read brilliant. If this statement, at first glance, seems strange to any ophthalmologist, I would beg him to bear in mind that patients are not likely to come under his notice until their sight fails. When the patient is speechless, or when he is partly or wholly insensible, we cannot test his sight even roughly, and we must use the ophthalmoscope.

I have occasionally had the somewhat painful feeling that the accuracy of my ophthalmoscopical examination has been doubted by Physicians whose opinions I highly value, when I have declared that patients with severe cerebral disease, who seemed to see quite well, had inflamed optic discs. But there can be no possibility of mistake in cases of severe optic neuritis, as the appearances are striking and are very easily recognised—no mistake, I mean, in recognising that the retinal veins are very irregular, that the course of the arteries is much obscured or quite lost, that there are little clots of blood scattered near the swollen disc; for these things are face to face with us when we are using the ophthalmoscope. They may exist when the patient can read small print easily. I have never laid stress on slight alterations in the colour of the discs, or on slight abnormalities in the sizes or course of the large retinal vessels. The slighter changes are important—irregularity of the veins is very important—but it is plain that healthy optic discs differ. Moreover, observers differ in their opinions as to the meanings of slightly unusual appearances, and we may get as far wrong by attaching too much importance to slight appearances as by altogether overlooking decided pathological changes.

I shall take an early opportunity of drawing attention to the general symptoms which should *compel* us to use the ophthalmoscope, and shall at the same time remark on Acute Cerebral Disease, or Cerebral Fever, as a certain grouping of symptoms—of which amaurosis from optic neuritis is often one—has been conveniently called.

Académie de Médecine.—At the last meeting of the Academy, M. Brown-Séquard, F.R.S., was elected a Foreign Corresponding Member.

(a) The above remarks apply to the changes sometimes seen in the eyes of patients who have chronic Bright's disease.

PARALYSIS AFTER SCARLET FEVER.

By A. B. SHEPHERD, M.A., M.B.,
Physician to the Children's Infirmary, etc.

The following case is worth recording as one in which an attack of scarlet fever was followed by a transitory nervine disorder. The report of it is condensed from my own observations and those of Dr. Park, the Resident Medical officer of the Infirmary :—

Jane W., aged 5, said to have been quite well and at school on September 24, 1867, woke before daylight on the 25th, complaining of pain in the head. In the morning a red rash appeared on the chest and neck, and after the evening of that day the child was, and continued, absolutely speechless. Dr. Park and myself visited her next day, in a dark hovel four stories below the level of Waterloo-road. She was in bed with a sister, both with well-marked rash of scarlet fever, but with little, if any, affection of the throat. Her sister recovered easily, but she remained still, after the disappearance of the rash, without speech or motion.

On October 22 she was admitted into the Infirmary. The following is her general history :—She is the fourth of six children, the eldest of whom died after an attack of measles; the rest perfectly healthy. She is said to have had two "convulsion-fits" about the age of twelve months while still sucking, and two others later, and subsequently "fainting-fits whenever she was frightened;" nocturnal incontinence of urine every now and then; no oxyurides ever noticed; no illness of any kind before this. Knows her letters, but cannot read; sulky at times; "has a temper of her own," but said to be always quick and observant. Parents healthy; never subject to fits.

She is a child of somewhat muddy-looking complexion, with large dark eyes, long black eyelashes, and black hair.

On admission she was very thin, horribly dirty, and perfectly speechless and motionless. When taken out of bed and placed on her feet, her legs sank under her, her arms and head fell forward, and hung listless. When asked to repeat a simple word, she only blew between her lips, and when told to copy two or three letters of the alphabet, or even mere lines, on a slate, she traced only vague scratches. In almost this same state she continued for three weeks, the only noticeable fact being that she ate ravenously—a fact, I think, to be remarked almost always in cases of chorea and ordinary paralysis. After this period she seemed to improve rapidly. When supported, though her head hung forward, and her hands were stuck out, with all the fingers pointing, she walked with the action of a high-stepping horse, throwing out her legs and bringing the heel and the ball of the great toe sharply down on the floor, at the same time carefully keeping her eyes on every step she made. As she got stronger, her movements were more like those of a person suffering from ataxie locomotrice; the high action of the legs still continued; the extensor proprius pollicis of both feet was always contracted, never allowing the great toes to touch the floor. The fingers were no longer stretched out; she gradually became more intelligent, watching persons moving about the ward, smiling and nodding when spoken to. On November 7, when asked to repeat the word "egg," she breathed only the gutturals "gg;" on the 9th she said, "goo," with a long blowing sound on the "g," and pursing up her lips, meaning to say, "good morning." All these symptoms vanished, one after the other; on Christmas day she got up, and was dressed, for the first time, and is now (January, 1868) able to play about the ward with the other children, though her movements and speech are yet far from being normal.

Throughout her illness there was no heart mischief, neither was any albumen found in the urine; the paralysis was not more marked on one side than the other. Considering the nervine symptoms, like those often succeeding diphtheria, to be merely transitory, and following out the dictum of Celsus—"opportunum medicamentum est opportune cibus datus"—we treated the patient with nothing else than the ordinary diet of the Infirmary.

It is unnecessary to offer many remarks on this case; from its commencement, I looked upon the paralysis, and the aphasia, if indeed it is to be so called, as directly caused by the action of the scarlatinal poison on the entire nervous system, and akin to those disorders which occur not unfrequently during convalescence from not only diphtheria, but other diseases due to so-called blood poison or nervine poison. M. Boucher, as quoted by Trousseau in his lecture "De l'Aphasie," has recorded two cases in which "une aphasie complète" followed typhoid fever, one of a girl aged 13 years, the other of a child aged 3 years; in both these cases albumen was present; both seem, after a time, to have fully recovered. Trousseau himself, in the above and other lectures, mentions the occurrence of paralysis in three patients during recovery from the same fever; and cases are not wanting in which nervous symptoms of a like character have been left behind by typhus fever and cholera.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from page 11.)

Case 97.—*Multilocular Cyst—Four Tappings—Ovariotomy—Death on the Eighth Day.*

A married woman, 53 years of age, was sent to Mr. Wells by Dr. Grime, of Blackburn, and was admitted July, 1867, suffering from a large ovarian tumour which had been tapped four times. She had been married thirty-four years, and had had ten children and two abortions. Menstruation ceased in 1863. Increase in size commenced in the autumn of 1865, without any pain or disturbance of the general health, and went on slowly till September, 1866, when Dr. Grime tapped for the first time, and removed forty-six pints of dark fluid. In three months a second tapping was necessary, and a third in April, 1867. At each of these, thirty-six pints were removed. The fourth tapping was on June 12, when thirty-two pints were removed.

On admission, the whole abdomen was found to be filled by a large adherent multilocular cyst, fluctuating above and to the left, solid to the right. The tumour could be felt behind the uterus, but did not appear to be firmly fixed there. The uterus was low, occasionally prolapsed, its cavity measuring 3½ inches.

Ovariotomy was performed on July 24, 1867. Mr. Wells began by tapping the largest cyst above the umbilicus. When this was empty, a large adhering mass was felt on the right, and movable masses above and to the left. An incision six inches long was made below the umbilicus, an adhering cyst opened, broken up inside, and partly drawn out after separating some firm adhesions. The portion to the right adhered so firmly to the abdominal wall, that it broke away from the rest of the tumour, and was not separated until after the clamp had been applied and the greater part of the tumour cut away. The pedicle was secured in a small clamp between two and three inches from the right side of the uterus, and kept outside without traction. A small piece of omentum, which had been adherent, was tied in two portions, and the ligatures returned with it. The adhering portion of the tumour was then carefully removed. The left ovary was healthy. The fluid removed measured thirty-six pints, and the portions of tumour removed entire weighed five pounds five ounces.

The patient went on pretty well for the first forty-eight hours. She then began to be sick, and the sickness became more troublesome on the third day. As no flatus had passed by the anus, and as there was some hardness felt behind the uterus, Mr. Wells removed the clamp, fearing that it might be causing some pull on the cæcum. Two hours after the clamp was removed, the hardness behind the uterus could not be felt, the end of the pedicle had sunk into the abdomen, and there was a free escape of red serum and air from the wound. Mr. Wells removed the two lowest stitches, and, passing in one finger, released the front part and right side of the uterus, which were adhering to the bladder and abdominal wall, and pressed out more serum. The sickness ceased for a few hours, but it returned during the night, and the pulse and temperature rose. Flatus passed freely by the rectum, and a little serum continued to escape by the wound. On the fifth day an elastic catheter was introduced, and three ounces of fœtid red serum were sucked out by a syringe, not, as it appeared, from the peritoneal cavity, but from a circumscribed space formed by adhesions behind the lower part of the wound between the

uterus and the cæcum. A drainage tube was left in this cavity, and it was washed out night and morning by injecting weak watery solution of iodine. At the last injection, about two ounces of fœtid pus were removed. Sickness continued to be distressing, and the patient gradually sank and died on the eighth day. The following table gives the daily range of pulse, temperature, and respiration, the highest point on each day alone being recorded:—

	Pulse.	Temperature.	Respiration.
Day of operation . .	96	99·0°	30
First day after operation	96	99·8	24
Second ,, ,,	96	100·2	26
Third ,, ,,	112	100·6	30
Fourth ,, ,,	112	100·4	24
Fifth ,, ,,	100	102·2	24
Sixth ,, ,,	124	104·0	36
Seventh ,, ,,	140	104·4	38

No post-mortem examination could be made in this case.

Case 98.—*Multilocular Cyst—Firm Pelvic Adhesions—Ovariotomy—Recovery.*

A married woman, 25 years of age, was sent to Mr. Wells by Dr. MacDermot, of Bath, and was admitted July 29, 1867. She was married in 1861, and had two children. The youngest was three years and a half old. Three weeks or a month after the birth of this child her illness began with severe pain, which she described as "inflammation in the lower part of the stomach." After this pain subsided, the body gradually enlarged.

Ovariotomy was performed on August 1, 1867. By an incision four inches long midway between the umbilicus and pubes, a cyst was exposed, free from adhesions anteriorly and surrounded by a little ascitic fluid. The large cyst was emptied, some groups of secondary cysts drawn out with it, and then it was found that the tumour was not only held by a short pedicle on the right side, but was also firmly adherent on the left side low down in the iliac fossa. In order to separate these adhesions without much bleeding, Mr. Wells first secured the pedicle temporarily by a hæmorrhoidal clamp, and liberated the tumour from the pedicle. He then, with considerable difficulty, separated some very firm adhesions to the sigmoid flexure of the colon, and to the front of the rectum low down in the pelvis, at length removing the whole of the cyst. There was some bleeding, and all blood was carefully sponged away. The pedicle being very tense towards the cæcum, a cautery clamp was substituted for that temporarily applied, and the pedicle was seared in the usual manner. On opening the clamp one vessel bled. It was again tightened, and the irons applied so as to heat the clamp itself, and the tissue enclosed between its blades. On reopening there was no bleeding, and the pedicle was allowed to sink into the abdomen. The left ovary was healthy. The tumour and its contents weighed twelve pounds. In spite of occasional sickness and pain, and rather a high pulse and temperature (pulse 100 to 120, temperature 99·8° to 102·6°), with hot skin and concentrated urine, the patient progressed satisfactorily. Metrostaxis appeared on the second day, and continued till the seventh. The stitches were removed on the third day, and the bowels cleared by an enema on the fifth. On the tenth day she was sitting up in bed, and she returned home quite well eighteen days after operation. Dr. MacDermot has written lately to say that she is perfectly well.

Case 99.—*Multilocular Cyst—Albuminuria—Ovariotomy—Recovery.*

A married woman, 40 years of age, mother of six children, was sent to Mr. Wells by Mr. Lipscomb, of Tring, in July, 1867, suffering from an ovarian tumour, which was first noticed in the summer of 1863; at least, she then began to increase in size, and was thought to be pregnant, and it was not till the early part of 1864 that she was undeceived. The size went on increasing, and in February, 1867, she suffered from pulmonary congestion. Mr. Wells wrote to Mr. Lipscomb that the case was one in which tapping could be of no use, and advised ovariotomy. Suffering more and more from distension, she was admitted to Hospital October 15, 1867. The girth was then 47 inches; distance from umbilicus to sternum, 12; to pubes, 9; to right ilium, 12; and to left, 11½ inches. There was some œdema of the left leg, and the superficial abdominal veins were dilated. Dulness and crepitation were evident on the right side of the chest as low as the fourth rib. The urine contained a considerable quantity of albumen; the usual specific gravity was about 1014. It was repeatedly examined, and as there were no renal casts or any other sign of kidney disease, it was hoped that pressure alone might account for the presence of albumen, and ovariotomy was fixed for October 23. But the catamenia appeared on the 21st, and lasted till the 26th, though they had been profuse a week before admission. They had been regular till the present illness began, but since had recurred every ten or fourteen days.

Ovariotomy was performed on October 30, 1867. Dr. Bischoff (of Basle), Dr. Arenburg (of Copenhagen), and Dr. Neftel (of Cincinnati), were among the visitors. A non-adherent tumour was exposed by an incision five inches long. A large cyst was tapped, emptied, and partly drawn out. It was then opened, inner cysts broken up, and their contents carefully squeezed out, so that none could enter the peritoneal cavity. A wedge-shaped cyst was closely pressed down into the pelvis, was dislodged with some difficulty, and the whole tumour removed after separation of a small piece of adhering omentum. A long pedicle containing very large veins was secured in a small clamp, and two bleeding vessels in the separated omentum were closed by Clover's cautery forceps. The left ovary was healthy. The fluid removed was twenty-seven pints, the cysts and solid matter five pounds.

There was occasional vomiting for thirty-six hours after operation, and some pain, but only three small opiates were given, the presence of albumen in the urine leading to a very sparing use of opium. The urine was examined daily. It contained a good deal of albumen till the sixth day. The quantity then began to diminish, and it disappeared on the fifteenth day. The clamp was removed on the sixth day. The bowels did not act till the twelfth day. On the twenty-first day she returned to Tring, and has been heard of since as quite well.

With regard to the complication of ovarian disease by albuminuria, Mr. Wells stated in some remarks at the bedside that as albumen was occasionally present in the urine of pregnant women, especially towards the end of pregnancy, so it was sometimes observed in ovarian disease, and generally when the tumours are large. Comparing the observations and estimates of different writers, it is probable that not more than two or three pregnant women in a hundred have albumen in their urine, and Mr. Wells has not observed a larger proportion in women suffering under ovarian disease; œdema of the lower extremities and of the abdominal wall generally accompanying it. In some cases the presence of albumen in the urine is due to the coexistence of Bright's disease and ovarian disease. In other cases it is due simply to the pressure of the tumour on the renal veins or vena cava, impeding the return of blood from the kidneys, thus producing congestion, and leading to the passage of albumen, and possibly of blood and tube casts, into the urine. When deciding whether to perform ovariotomy or not, it becomes very important to ascertain whether the albuminuria depends upon Bright's disease, or merely upon the passive congestion caused by the pressure of the ovarian tumour. In the above case the fact that the urine was pale and abundant, of low specific gravity, and the amount of albumen considerable, taken into account with the pulmonary congestion, led to some doubt. But as there were no fatty or granular casts to be seen in the urinary deposit, as anasarca was only observed in one leg, and in the abdominal wall accompanying evident venous congestion, while there was no very marked anæmia, and no hypertrophy of the heart, there was good reason to believe that there was no organic disease of the kidneys; and that, when the pressure causing the venous congestion was removed, the albumen would disappear from the urine, as happily proved to be the case. It is not often that so much doubt arises as in this case, because a smaller quantity of albumen, and a more dense, less abundant, and higher-coloured urine, at once remove any fear of Bright's disease, and point out the passive congestion from pressure as the true explanation of the albuminuria.

(To be continued.)

The Radcliffe Infirmary.—At the last quarterly meeting of the Governors of this institution a very long discussion took place as to the necessity for various alterations in, and extensions of, the building. Dr. Acland pointed out various schemes which are now receiving consideration. Among the most prominent are the proposals to erect a free fever ward, a sanatorium for those who can afford to pay, and a convalescent Hospital. It was also proposed to make considerable alterations in the sculleries, drainage, etc.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 8, 1868.

"MEDICAL INTOLERANCE AND LADY DOCTORS."

The opponents of the female obstetrician movement must frequently have derived much encouragement and satisfaction from the tone and tactics adopted by its promoters and champions. The abuse with which these usually assail the Medical Profession, the charge of indelicacy they bring against Englishwomen in general, and their own assumption of pre-eminence in purity, delicacy, and refinement, hardly seem well calculated to win the support of either the Profession or the public. And we have not observed any improvement in style, though the "Ladies' Medical College" has been in existence for more than three years. Indeed, the latest specimen we have seen of the literature —if we may give it so dignified a name—of the sect is decidedly the worst. We have received No. 1 of the "Fitzroy Pamphlets," on "Medical Intolerance and Lady Doctors." The title of the production is taken, we presume, from the *locale* of the "Ladies' Medical College," and every opportunity is taken to puff that and the "Female Medical Society;" but whether there is any other connexion between them does not clearly appear. We congratulate the author on having had the modesty to remain incognito, for there is no other sign of that sorely needed grace about the pamphlet. It is made up of scoldings of more than forty-female power, declaimings about woman's rights and wrongs, against man's tyranny and stupidity, and against the iniquities of Doctors, and of rhapsodies about delicacy, and purity, and mystic chords of feelings and harmonies, that recall the outpourings of some of the "religious" sects described in Mr. Hepworth Dixon's "New America;" and the revilings, the appeals to sentiment and to passion, and the so-called arguments, are tumbled forth with a volubility and eagerness that require apparently an utter disregard for taste or style, and almost of grammar and coherence. A few extracts will suffice to show the character of the production, and to more than justify what we have said of it. Thus we are informed, at page 5, that cynics will sneer at the scruples many feel at the employment of Doctors in midwifery, and call them idle and childish; but that

"those who have learned to overcome and make light of these scruples, have impaired at the same time the brightest, the purest, the most loveable part of their natures; and with which they have lost the power to awaken in others the deepest feelings of regard and sympathy. A thousand mystic chords in the human bosom have ceased to yield their harmony, and that not because they have no power to vibrate, but because the musician's magic skill is gone. Men may have eyes perfect in their mechanism, but what avails that, if the sunlight never reaches them? So it is when the light that irradiates our better nature is extinguished. We know not what we lose. Everything that degrades woman degrades us; for they should be the guardians of purity on earth. If their best qualities were not impaired, the natures of all would be awakened to a higher life, and many would not, as they now do, carry their most glorious susceptibilities with them latent to the tomb. But the stream of life is polluted. Its spiritual beauty in too many cases has passed away. Like a sparkling dewdrop, absorbed by the muddy waters of this earth; it can never regain its glittering existence."

Yea, even the finest and most-gifted natures—

"the few terrestrial divinities, whose presence in the world teaches us how 'little lower than the angels' humanity must have been created, are also exposed to the odious contact of this serpent's trail; to the baneful influence of a practice whose existence involves the systematic annihilation of the best and purest attributes of human nature."

If the writer had developed all this but a little further, we feel sure that she—no man could have got such superbly fine writing out of the subject—we are convinced, we say, that she could have proved that man-midwifery was somehow the cause of original sin and the fall of man. We wonder whether any of the lectures at the "Ladies' Medical College" are at all in this style? If they are, it may account for what seems to us rather curious—for the fact, namely, that apparently it is thought not at all indelicate for men to teach women midwifery and anatomy, though the practice of midwifery by men has such appalling effects. Further on in the pamphlet we read:—

"Some people have wished the system we denounce might be sent to Jericho, but I (*sic*) (a) can see no reason why Jericho should be tormented with it, and I know of no place on the habitable globe that is bad enough to receive it. If we have any faith in the doctrines of the penalties for sin, I believe the system has been the means of sending many thousands of souls to the lower regions. It is no doubt a diabolical invention that was originated in Pandemonium itself, and is now upheld by the influence of the powers of darkness. And we should hasten to consign it again to its birthplace with all possible dispatch. What are all our clergy and ministers doing? They quibble about their vestments and their tithes of mint and cumin, but they neglect the weightier matters of purity, and truth, and justice."

We cannot feel too thankful that women have not yet got generally into our pulpits. Women may, however, be taught midwifery by men, and, instead of impairing the delicacy or lowering the tone of *their* minds, they will "be the means of raising the tone of the profession itself, and of elevating the standard of taste that now pervades it." Yet Doctors are described as being so brutally selfish and bad that we should have feared that even women could scarcely touch the pitch without being defiled. The writer takes up the term "heroic Surgery," which we in the Profession use rather in a satirical than a complimentary sense, and treats of it as if we admired and encouraged it, and then she exclaims—

"How about the medical hero? His courage consists, not in disregarding his own sufferings, but in disregarding those of his patient. 'No pains spared,' is his motto, while mutilating his wretched victim. The real hero combines the courage of the lion with the gentleness of the dove. The sham hero, this medical make-believe is remarkable for nothing; but for having triumphed over the kindly instincts of human nature, and for the development of its demoniacal qualities. . . . Some eminent doctors have not time to be gentle. They have too much business on their hands, and seem to think that the sufferings of an unimportant patient are of infinitely less consequence than the inconvenience a trifling delay would be to themselves."

Even this does not satisfy our gentle author. At page 20, she ventures to charge Medical men with criminal conduct towards their female patients.

"As to the criminal charges referred to," she writes, "I have not the least doubt but that, in many cases, they might

(a) In this, as in punctuation and everything else, our quotations are scrupulously exact.

be not only insinuated, but substantiated. Scandalous circumstances enough have come to my knowledge fully to impress me with that conviction; but, like the popish priest in a nunnery, the doctor has excellent opportunities to escape the crime of being found out. They assert themselves that they are the guardians of the honour of their female patients. Fine guardians, some of them, indeed, we may as well entrust a fox with the guardianship of a poultry yard."

The truthfulness of all this is only equalled by the good taste and delicacy with which the picture is drawn!

Of course all that is said against this "cursed system," this "moral pestilence" of English midwifery practice, and the "degradation which this evil system implies," affects not the Doctors only, but also English men and women who employ them. And on this the writer remarks with her usual elegance, delicacy, and self-complacency—

"We are not ignorant of the fact that a large portion of the community appear satisfied to accept the present system as a necessity, and that among ladies themselves may be found its supporters and advocates. We could offer many reasons why it should be so, but they would, perhaps, be more truthful than agreeable. We will, therefore, pass them over, and, in their place, substitute the following well-known anecdote"—

Then follows the fable of the fox that had lost its tail, and further remarks, such as—

"Human nature despoiled of its best feelings and unconscious of its degradation is a very unlovely thing. But we do not wish to dwell on this unpleasant theme. Some may think that the above remarks contain a reflection on themselves. Perhaps they do, and if it is so, it is the truth that reflects and not I."

Our readers' patience must be nearly exhausted, but we must make one more quotation; it is really too good to be lost, and the "suggestion" made in it, though "offered with great diffidence," is so thoughtful and kindly that we dare not deprive them of the benefit of it.

"To the friendly reader then, who is under any apprehension that the admission of ladies to the profession would interfere with his pecuniary profits, I say, would it not be possible to prevail on the lady of your choice to undergo the comparatively short period of study that would be necessary to qualify a lady for those departments of medicine in which women should engage? Your income instead of being lessened would then be increased, and your wife would be a helpmeet for you in a far truer sense of the word than if you regarded her merely as a superior upper servant and manager of your domestic affairs. . . . Then, again, to have a consulting physician always at hand might possess some advantages. It might be an advantage to your patients, and it might augment your reputation."

Nothing can add to the beauty and refinement of this! The delicacy of the reasons for choosing a wife, and of the assertion of the way in which Medical men at present regard their spouses, and the suggestion that "a comparatively short period of study" fits a woman to be a consulting Physician, are inimitable.

We might easily cull many more choice passages from the pamphlet; but though its intense exaggerations and various beauties may have given our readers much amusement, they must begin to sicken of it, and we will not inflict any more upon them. It is an outrageous libel, not upon the Profession only, but upon all English men and women, from the palace to the cottage. We have said that we do not gather that it is issued by, or has any direct connexion with, the "Female Medical Society," but we cannot but observe that it puffs and advertises that body, and especially names, and exempts, of course, from its censures, the lecturers at the "Ladies' Medical College." An appendix to it also republishes complimentary notices of this College. We must add that to us it is incomprehensible how any Medical man can permit his name to be in any way connected with a sect that seeks to gain supporters by such virulent and scandalous attacks on his Profession and his countrywomen. And the gravest wrong is the wrong to the latter. For ourselves, as a Profession, we can well afford to laugh at such writers, and then fling their publications by. Their dogmatism, verbiage, facile rant, and tedious declaimings cannot possibly hurt us, and may afford us a few moments' amusement; but that these pretenders to a superior purity and refinement, these would-be cultivators of Medicine, should so libel our countrywomen *en masse*, is a most gross and unpardonable offence.

With regard to the latest development of the tactics of the "Female Medical Society," and the correspondence now carried on in our columns between Dr. Eastlake and Dr. Edmunds, we leave them to the consideration of the Profession. They will judge on which side truth and justice lie, and on which side is seen the most of that open, honest fair play that Englishmen so value. We will make only two remarks—first, that the truth of Dr. Eastlake's charge against the midwife seems to be admitted; and secondly, that "an alliance" is formed, or is being formed—we do not clearly gather from Dr. Edmunds's letter whether the negotiations are absolutely concluded—between the "Female Medical Society" and the British Lying-in Hospital, by which the Hospital will sink to the position of a mere appendage to the Society. Supposing that the governors of the Hospital choose to accept this position for their institution, what will Dr. Eastlake's colleagues say to it? What has been their action in the matter up to the present time?

Lastly, we would warn the party who support the Female Medical Society and the Ladies' Medical College that, if they are ever to persuade the English people to cast out the accoucheur and take to their homes the female obstetrician or lady Doctor—if they hope ever to be affiliated in any way to the Medical Profession, they must thoroughly change their tactics. And, as a first step towards amendment, we would recommend some slight cultivation of the charity that "thinketh no evil."

MEDICAL EDUCATION AND THE MEDICAL TEACHERS' ASSOCIATION.

"What will *they* do with it?" we were inclined to ask (slightly altering the title of a well-known romance) on hearing the address of the President of the Medical Teachers' Association. "What will *they* do with it?" Will they take it for their motto, pin it to their standard, and march boldly forward in the path of educational progress and reform? or will they try to bury it in a dusthole, and endeavour to forget that it has ever been spoken? What do the majority of the members of this Association really desire? Are they absolutely in earnest in wishing to do the best that can be done for the improvement of Medical education, or are they only desirous of constituting themselves into a sort of Medical Professors' Protection Society?

If the latter be the predominant motive for the organisation of this Association, then its days are numbered. There are already enough earnest men amongst the Medical teachers of London to make it impossible for a society of this kind to exist unless it gives evidence of a zealous determination to do genuine and earnest work in furthering thorough scientific teaching and putting down all the shams and impediments which now overwhelm and vitiate our whole system of Medical education.

Again and again, in the pages of this Journal, and especially in the "Notes on Medical Education" which we are now publishing, we have urged the adoption of most of the reforms which Mr. Simon has stamped with his authoritative approval. We are glad to think that our labours in this direction have not been without their due influence. We are now able to enumerate a goodly number of genuine reformers amongst the ablest of the teachers in the metropolitan Medical Schools. Such names as Beale, Huxley, Odling, Russell Reynolds, George Johnson, Christopher Heath, Anstie, Handfield Jones,

and others, swell the ranks of the reformers. Where shall we find more earnest or able teachers than these?

There can be no doubt that great and radical changes in the system of Medical education in this country are at hand—changes which *will inevitably* come whether this Association takes the part of promoting or opposing them. A spirit of active public inquiry is at work examining and testing all our existing educational systems, and Medicine must keep pace with the stirring temper of the age, or be prepared to incur well-merited suspicion and contempt.

The reformers will soon be able to have things their own way. They form a body numerous enough, distinguished enough, energetic enough to found a new Medical school, which, we prophetically venture to assert, would rapidly acquire a success equal to that of the largest schools in London. It may be said that the College of Surgeons would close their doors to the pupils of such a school. Let them do so. They would soon repent of their mistake. There remains the University of London, there remains public opinion, there remains an enlightened legislature, and a tyrannous bearing on the part of the College of Surgeons would soon prove fatal to the influence of that venerable body.

But we are by no means satisfied that all the blame in this matter of Medical education rests with the examining boards, and we think the President of the Medical Teachers' Association dealt scant justice to these bodies. If we urge examining boards to raise their standard, we must at the same time raise the standard of teaching. The teachers themselves must cease to put their trust entirely in mere bodily attendance at their lectures, which they appear so anxious to enforce. They should endeavour rather to induce active thought and attention on the part of their pupils. The teachers now throw all the responsibility on the examining bodies; yet surely some share of this responsibility rests with themselves. "But what are the teachers to do?" we may be asked. We reply—Trust less to formal, routine courses of lectures; examine constantly; make the pupils see, handle, and note for themselves; and, instead of combining, as they have just done, to force the students to be personally present, or rather to get marked at a certain number of lectures, let them rather *combine and agree to refuse to give certificates* to those who, on examination, show that they have learned nothing. This is surely within the power of the teachers themselves. Men cannot present themselves to the examining boards without certificates from their Professors; it is the duty, therefore, of those Professors to see that their pupils are fit to present themselves for examination before they grant them the necessary testimonials. Supposing the examining boards retort on the teachers—supposing they say, "You, on your part, undertake to teach these men the various branches of Medical science; you make a bargain with the public to do so. Carry out your part of the compact, and don't send us men, fortified with your certificates, whom you have never taken any pains to teach, whom you have never yourselves examined in order to ascertain if they are fit to receive your testimonials before sending them to us. What is the use of our raising our standard if you will not raise yours?" There is an evil, no doubt, in the competition of examining bodies, but there is a still greater evil in the competition of schools. The various examining boards have already done much to improve the standard of Medical education. Have the Medical schools done as much? The Medical Council, too, have not been inactive. They have visited all the examinations of the various licensing bodies, and they have already succeeded in effecting many salutary improvements.

During the last year or two a marked improvement has taken place in the examinations at the College of Surgeons. Microscopes have been introduced at the primary examination, and at the second examination the practical application of Surgical apparatus, the actual examination of patients, and, quite recently, an examination in Medicine, have been adopted. The Apothecaries' Hall has not been behindhand; indeed, that Society has always shown a praiseworthy anxiety to be found in the van of educational progress. The recognition of objects under the microscope and the examination of actual cases of disease have been introduced into their examinations, and, in order to obtain the licence of this body, it is now necessary to undergo two examinations, each occupying several hours, and consisting of written work and *viva voce* tests.

We cannot help thinking, then, that the teachers themselves are more at fault than the examining boards. If they were not to grant certificates to men with the facility they do, if they were to take pains to ascertain that their pupils knew something before they sent them up for examination, they would only be doing their duty, and the examining bodies would then be free to act more energetically than they can at present.

Compulsory attendance on lectures—this is the great work that the Medical Teachers' Association has set itself to perform. We regret exceedingly that the majority of its members should have made this their starting point, instead of combining together to alter the whole of the present system of granting certificates, which rests on an entirely false basis. On this and other subjects the voice of the President gave forth no uncertain sound—thorough sweeping reform is the burden of his address.

It is yet in the power of the members of the Medical Teachers' Association to be the pioneers of a better system of Medical education, but in order to do this they must apply themselves heartily to bring about the following much-needed reforms:—

1. The substitution of frequent examinations for enforced attendance on lectures.
2. The abolition of duplicate courses of lectures.
3. The promotion of clinical teaching, not only by set lectures, but in the Hospital wards.
4. The concentration of the teaching of, at any rate, the purely scientific branches of Medical education in a small number of schools.
5. The general adoption of a fully developed tutorial and demonstrative system of teaching as supplementary to professorial courses.
6. The promotion of a better system of examination by the licensing bodies, and a reconstitution of the examining boards, especially that of the College of Surgeons.
7. The institution of pass examinations at the *end of each year* of Medical studies, as in the Continental schools.

These are a few of the objects which this Association might usefully attempt to promote. Whether it does so or not will depend on the earnestness of the majority of its members.

MR. LOWE ON THE UNIVERSITIES.

In our last number we took a hasty view of the scheme recently ushered into the world at Liverpool for regenerating the shopkeeping class in this country by means of French novels, synthetical mathematics, and the rudiments of physical science. We are now to learn where this new *trivium* is to be gone through.

A well-informed statesman, who has made popular education his study—a man, moreover, who has had an intimate acquaintance with the ordinary life of Oxford—tells his audience that "the endowments which were originally intended for the middle classes have one by one been filched from them. The first object will be to get them back. The Universities, which were originally established for the poor, have been closed to them." It must be borne in mind that the middle classes, as defined by Mr. Lowe in this speech, are the shopkeeping classes, who do not desire the higher education. The propositions, therefore, which the speaker intends to maintain, are that the Universities were established to supply an inferior grade of education, that they ought now to be

filled by the shopkeeping class, and that no class above this has, or ever had, any right to frequent them. Statements so preposterous, coming from a man whose words carry so much weight, fully justify the discredit which in another part of his speech he tries to throw on the study of history. If that study has done no more for him than this, time spent upon it has indeed been thrown away. The early history of the Universities is obscure and fragmentary; but one thing is, at all events, clear in it—namely, that what people sought there was the highest education known in their time. It is also quite beyond doubt that the studious of all classes flocked to them, and that there was no special provision for poor men. Indeed, the object with which most of the Colleges were founded was that persons bred in the particular district favoured by the founder, and unable to pay their way in the University, might have board and lodging provided for them free of expense. But even in the statutes of the Colleges, which contain the strictest requirements that their members shall be "pauperes" and "indigentes," there are passages which imply that they must possess some private means. It is unnecessary to prove that the shopkeeping class did not possess an exclusive right, nor even a limited share, in the Universities in the earlier period of their history, for the simple reason that the class had absolutely no existence. On the whole, we need not hesitate to assert that the same class which takes most advantage of the University course now—the class of highly educated men who work for their living—is precisely the same relatively to the rest of society as that which filled Oxford and Cambridge four, six, or eight hundred years ago; and that men who wish for the highest education for its own sake, or as a preparation for a profession, may seek it there with a clear conscience, and without feeling that they are occupying a place that belongs of right to some one of a class below them.

It is necessary to remember the relation which the Colleges bear to the Universities. The statutes of both Oxford and Cambridge require that before a man can become a member of the University, he must have been admitted a member of some College in it. But the University of Oxford is a thousand years old, this law only 230 years, and if all the Colleges were abolished to-morrow, the University would not be in the least degree affected by their disappearance. The Colleges were originally hostels for poor students, and very few of them (and they small foundations) are more than 500 years old; but they became, at the beginning of the seventeenth century, numerous enough and strong enough to strangle the rest of the University, and in 1636, under Laud's chancellorship, a body of statutes containing the provision above mentioned was passed into law with discreditable haste. Much the same thing happened at Cambridge. It is this provision which Mr. Ewart's Bill, now before Parliament, is intended to repeal; and in desiring the passage of that measure, in the interests of the Universities and of our own Profession, we are glad to agree most fully with Mr. Lowe. A University is properly a place of exchange for knowledge—a centre to which a man who has something to teach may come to find hearers, and to which a man who wishes to learn may look for the best teacher in whatever branch of knowledge he requires. But Oxford and Cambridge are collections of boarding-schools, the pupils of each of which are driven through a limited curriculum which is fixed by the managers of the schools collectively. In other words, each college makes its inmates learn what its tutors have to teach; and the tutors themselves, having a complete monopoly, settle in common what shall be taught. There is a large staff of professors, but unless their lectures have some bearing on this curriculum, nobody attends them. It is true that some side paths have been opened, in which Professors' lectures are more available than they formerly were; and that the absurdity has been committed of giving a degree in arts—that is to say in "literis humanioribus"—for knowledge of the bones of a cat or the bowels of a fish, and other portions of natural science; but the effect of these alterations has been only to dilute the former unmixed quality of the arts degree. If more faculties were established, it would not be necessary to give a man a degree in one subject for proficiency in another. We do not believe that there will be any great delay on the part of the University in accepting the principle of Mr. Ewart's Bill, notwithstanding the opposition of the College tutors, inasmuch as we know that a member of the Hebdomadal Council of some weight, usually classed as a Tory, lately expressed in a full congregation his opinion that the fair and just and wise course for the University to pursue was to repeal the provision of Laud's statutes.

With regard to endowments, the principle on which they are now distributed—a principle enforced in its fullest extent by the late University Commission—is no doubt a most mischievous one. To pay a man for learning or for having learnt a particular thing degrades his knowledge and damages his self-respect. The use of these endowments should be to enable men to devote their time to study, not to pay them for having done so at some past time. In this we go further than Mr. Lowe, and think that the whole system of election to fellowships and scholarships is faulty and needs complete revision; and by any fair scheme of redistribution there is no doubt that the study of Medicine, which is now scantily helped by these means, must profit largely.

THE WEEK.

TOPICS OF THE DAY.

We hear that it is proposed by the Court of Examiners of the Apothecaries' Society to introduce some important changes in the conduct of their examinations. In addition to the written and *vivâ voce* examinations, a practical examination will, as far as possible, be given in every department. This has already been done to some extent, but it is intended still further to develope plans for testing practically the candidate's knowledge in all the subjects in which he is examined. Another improvement contemplated is the introduction of the numerical method in determining the merits of the candidates and the results of their examinations.

Mr. Skey, as the Chairman of the Contagious Diseases Committee, and as the veteran Surgeon of St. Bartholomew's Hospital, has undoubtedly a right to be heard when he addresses the male public on the subject of the social evil. We give him the credit which is really his due for endeavouring to arouse feelings of pity towards the female outcasts of society, and we believe that there is a certain amount of truth in his representations. But he has spoiled the effect of his picture by over-colouring. All prostitutes—nay, the majority—have not been the victims of the seducer. Some are undoubtedly tempted to evil courses by poverty, but, as the Chaplain to the Magdalen Hospital asserts, a very large proportion have really their own idleness, wilfulness, and love of dress and pleasure to thank for their degradation. Again, unchastity in women is not, and cannot be considered, in English society a small or an easily pardonable crime. The whole structure of English domestic life and happiness rests upon the virtue of English women, and we cannot afford to visit lightly errors which would sap the foundation of all we prize most highly. With regard to the propriety of providing reformatories for fallen women out of the public revenue, it appears to us a proposal not a little unjust and wholly chimerical. These women are doubtless fit objects for charity, and much is being done by charitable people to help and reclaim them, but to propose that their reformation should be paid for out of the local or imperial revenues whilst honest labourers, as long as they are able to work, are taxed to provide those revenues, and when

unable are handed over to the tender mercies of the relieving officer, seems to us subversive of the first principles of ordinary justice.

A new Children's Hospital has been started, under good auspices, for the East-end of London. Our readers know that we are not in favour of the indefinite increase of public Medical charities, but we have every reason to believe that the East London Children's Hospital will prove an institution of great value amongst the swarming and starving population of the East-end. It is placed in the very poorest district of the East, at Ratcliff-cross, in the Limehouse district, where the committee have received from a gentleman a grant of the use of two houses for the first year. Almost the only Hospital provision for a population of 1,000,000 has hitherto been the London Hospital, and the benefit which may be rendered by a well-managed Hospital for children is enormous. We wish it every success. The Resident Medical Superintendent is Mr. N. Heckford, with whom will be associated Dr. Barnes and Mr. Buxton Shillitoe as Consulting Physician and Surgeon, and Mr. George Cowell as Ophthalmic Surgeon.

An unfortunate Poor-law case has recently occurred at Poplar. An inquest has been held there on a pauper woman who died from unrelieved strangulated hernia under circumstances which, nevertheless, led the jury emphatically to pronounce that the parish Surgeon, Dr. Gale, was entirely free from blame. It was shown that Dr. Gale had been overworked to an enormous extent, that his list of patients to be seen had risen to nearly 170 a day, and that the Guardians had turned a deaf ear to all his applications for help. They formerly granted him a qualified assistant, but this aid has been withdrawn, and the scanty pittance Dr. Gale receives scarcely enables him to get unqualified help. Dr. Gale said that he had several times warned the Board that some accident would occur, and that he could not be responsible for it. The facts of the present case were that the poor woman had been seen by Dr. Gale's unqualified assistant, who, however, did not detect the hernia, and that after two or three days' illness she died. The Coroner's jury, as we have said, completely exonerated Dr. Gale. They took the just view of the matter that no one man could possibly attend to 170 patients a day and be responsible for all; but in thus doing they threw the blame on the Board of Guardians. The latter have endeavoured to shift their responsibility by suspending Dr. Gale until the Poor-law Board has pronounced on the case. As we have thorough confidence in the impartiality and justice of the central authority, we can confidently leave the matter in their hands.

At the quarterly meeting of the Metropolitan Poor-law Medical Officers' Association, which was held on the 31st ult., the principal subject of discussion was the effect of the clause of Mr. Hardy's Metropolitan Poor Bill which directs that all drugs and Surgical appliances supplied to the poor shall be repaid out of the Common Poor Fund. Does this clause apply to pre-existing contracts? A correspondence on the subject has passed between Mr. Clarke, the Surgeon of the East London Union Workhouse, the Guardians of that Union, and the Poor-law Board. The Board seem to be of opinion that the section of the Metropolitan Poor Act in question does not intefere with existing contracts, the terms of which should be complied with whilst the contracts are in existence. The meeting, by resolution, expressed themselves disappointed with the opinion expressed by the Board, and requested the Council of their Association to memorialise the Board "that they would be pleased to exercise the powers vested in them by the Act, and to vary the existing contracts so as to give effect to the intentions of the Legislature." It seems to us simply a question for lawyers to determine. Does an Act of Parliament on Poor-law Medical relief override existing arrangements between boards of guardians and their Medical officers? The questions mooted at a previous meeting as to the payment of Metropolitan Poor-law Surgeons on a uniform basis, and as to permanence of appointment, are left for the consideration of the Poor-law Board. We shall be glad to hear that the suspension of Dr. Rogers, the President of the Association, by the Strand Union guardians, has been adjudicated by the same authority. In his opening address, Dr. Rogers said "he invited the fullest public investigation into the whole of his conduct as a Poor-law Medical officer; and if such were granted, he felt there would not be the slightest doubt of the result—viz., an honourable acquittal on the charges brought against him by a majority of the guardians."

The Chair of Physiology at the Charing-cross Hospital has been conferred on Dr. T. Claye Shaw, one of the Resident Medical officers of Colney-hatch. Dr. T. H. Green succeeds to that of Pathology, vacant by the resignation of Dr. J. Pollock. Dr. Chowne has resigned the Physiciancy to the Hospital; there is consequently a vacancy for an Assistant-Physician. The only candidate at present in the field is Dr. Silver, the Lecturer on Forensic Medicine and Toxicology in the Hospital School.

The advertisements of three candidates for the coronership of West Middlesex have appeared in the *Times* this week. They are those of two Medical candidates, Drs. Hardwicke and Diplock, and of one legal candidate, Mr. F. J. Hand. We believe we are expressing the general feeling of the Profession when we say that we regret exceedingly to see the Medical interest still divided. We hope that before the election takes place other counsels will prevail, and that one of the Medical candidates, by the retirement of the other, will be returned by a triumphant majority. We should propose that the relative chances of success of the two Medical candidates should be compared by some impartial arbitrator, and that the gentleman whose chances are inferior should retire in favour of his opponent, the latter defraying all the expenses incurred by both parties.

The electors of the University of London will before long be addressed by Mr. Lowe, who, at the request of two hundred and forty of the graduates, has consented to become a candidate for the representation of the University in Parliament. If it be the object of the University to secure an accomplished scholar, a thorough politician, and a debater of the first water, they cannot possibly choose a man who unites these qualities in a higher degree than Mr. Lowe. We confess that we should gladly have seen the interests of our Profession and of science directly represented in the person of the member for the University of London. But if the majority of the graduates wish a brilliant scholar and debater, who will confer *éclat* on his constituents, they cannot find a man who will more certainly do so than Mr. Lowe.

By the resignation of Dr. Charles Mayo, of New College, the coronership of the University of Oxford is vacant. There are one Medical and two legal candidates in the field. The Medical is Mr. Frederick Symonds, the well-known Surgeon of Oxford; the legal are Mr. J. M. Davenport and Mr. F. Morrell, of St. John's College. The Professional claims of Mr. Symonds are so undoubted, and he is so well known and respected in the University, that we should hope his success would be a matter of course. The election will take place on Saturday, February 22.

A case of accidental poisoning by nitric acid is reported in the papers. The deceased, an old man, was in the habit of taking a few drops of strong nitric acid on sugar, to relieve a pain in his chest. It appears that, a short time before his death, he had taken half a pennyworth. Symptoms of poisoning followed, and he soon sank. The post-mortem is said to have disclosed the effects of the acid, together with a diseased heart. It seems difficult to conceive how a person could voluntarily take a sufficient quantity of nitric acid to produce death without a suspicion that he was harming himself.

PROFESSOR HUXLEY'S LECTURES ON THE INVERTEBRATE ANIMALS AT THE ROYAL COLLEGE OF SURGEONS.

On Monday last Professor Huxley commenced a course of twenty-four lectures on the organisation of the several groups of invertebrate animals. He began by pointing out the sharp line of demarcation which separates the vertebrate from the invertebrate sub-kingdoms, no transitional forms between the two having ever yet been discovered. It was not so with the animal and vegetable kingdoms; here no sharp boundary line could be traced; the transition from animal to vegetable through intermediate forms was so gradual, that it was difficult to frame any definition which should include every creature belonging to one kingdom, and exclude all those belonging to the other. Perhaps the most fundamental difference between animals and plants was this. In the primary vegetable cell there was always found an outer wall of *non-nitrogenous* matter, of the nature of *cellulose*, enclosing and shutting off the living protein cell-contents. No such outer cell-wall could be found in the tissues of animals. Another distinction between animals and plants which was very much relied on was this. Vegetables always derived their food from *inorganic* substances, and they were the only living things that had the power of building up composite protein and other compounds out of the ammonia and carbonic acid, etc., of the soil and the atmosphere. But even this distinction seemed on the point of breaking down, for it had been lately discovered that certain *fungi* were dependent on *organic* substances for food. Ecker had attempted to obviate the difficulty by creating a third kingdom, which should include all those creatures which presented intermediate characters between animals and plants, but the learned Professor thought that this would make matters worse instead of better, as it would give rise to two difficulties in the place of one. The lecturer then passed on to the general subject of classification. He observed that all our present classifications were but provisional, and should all be regarded as subservient to the highest object of all classifications—viz., the arrangement of animals according to their real *genetic* relations.

On Wednesday Professor Huxley commenced a description of the Foraminifera. After giving a general account of the composition, structure, and form of their shells, or, as he preferred to call them, their *skeletons*, he proceeded to speak of their classification. He rejected D'Orbigny's classification as utterly useless, and founded on fallacious observations. He accepted, for the present, that suggested by Dr. Carpenter and Mr. Harper—viz., their primary division into two groups—those with (*a*) perforated and those with (*b*) imperforate skeletons; and these are each again separated into three orders. As to defining precisely genera and species amongst the Foraminifera, it was impossible. In speaking of the habits and distribution of these animals, he mentioned the remarkable circumstance that although they were found in abundance in the oldest geological formations of the earth's crust, and that their existence, therefore, had spread over a period of time inconceivably great, they never presented any evidence of advancing modifications of structure, and many of the oldest of their shells were specifically identical with those existing at the present day. These Foraminifera had played a most important part in building up the surface of the earth—they were rock-builders of the highest importance. This was strikingly shown during the survey of the sea-bottom between the west coast of Ireland and the east coast of America, which preceded the laying the Atlantic cable. This survey had been carried out very effectively. The bed of this part of the Atlantic turned out to be one of the largest plains in the world. Along the whole sea-bottom between the coast of Ireland and that of Newfoundland, there is not a hill or even a hillock. As to the nature of the sea-bottom, it consisted of a greyish mud, a kind of grey chalk, and was made up of 96 per cent. of the shells of one species of Foraminifera, the Globigerina, the composition of which is entirely calcareous. The remaining 4 or 5 per cent. was composed of the siliceous shells of Polycystinæ, Diatomaceæ, etc. It was curious to consider how these shells got there. Every one of them must have fallen to the bottom from the upper surface of the ocean. How long could they have taken to fall through from ten to fifteen thousand feet of sea-water? That they must have so fallen is evident, for they could not have lived, grown, and died at the bottom of this ocean, for the darkness at this depth would be so absolute that it would be impossible for any vegetation to live there upon which they could feed.

THE JELF TESTIMONIAL.

A large and influential meeting of Professors, and of past and present students, and others, was held in the large hall of King's College on Friday last, for the purpose of organising a committee to carry out the proposed testimonial to their revered Principal, who retires from this office at the end of the present academical year, after a connexion of twenty-four years with the College. The Bishop of London presided. He was supported by Dr. Stanley, the Dean of Westminster, and by the following distinguished Medical men:—Sir Thos. Watson, Bart.; Sir Wm. Fergusson, Bart.; Profs. W. A. Miller, Bentley, George Johnson, Priestley, etc. The Archbishop of Dublin, the Right Hon. W. E. Gladstone, the Right Hon. Lord Stanley (an old student of King's College), and many other distinguished persons, had written expressing a wish to become members of this committee. It was resolved that a committee should be formed, and should be composed of members of the Council, members of the Professorial staff, old students selected from the different departments of the College, and a certain number of present students; and that the committee already organised by Mr. Worms should be amalgamated with, and included in, this one. Mr. Worms himself was present, and supported this proposal. This fact is worthy of notice, because it contradicts in a remarkable manner a very ill-natured paragraph which appeared in one of our contemporaries last week on this subject. It is there stated that the Professors, "influenced, apparently, by the success" of Mr. Worms's efforts, have started a "*rival* testimonial scheme," and that it was an endeavour to "take the wind out of the sails of the originators." We need only point to the names of those who took part in this public meeting to prove the bad taste and falseness of this accusation. The truth is this—Dr. Jelf's notice of resignation was sent round to the members of the College staff during the Christmas vacation. The Professors were away from the College, many of them at some distance. It was perfectly understood that on their return some steps would be immediately taken to organise a committee for the purpose of presenting a suitable testimonial to the retiring Principal. In the meantime Mr. Worms, with characteristic promptness and energy, summoned around him a certain number of old students, and formed them into a committee. From the first it was felt that it would be more desirable to have one united committee than two committees working independently for the same object. The College was the natural head-quarters of such a movement, and it was not to be expected or desired that the collegiate staff, the Council, and the other distinguished men who desired to take part in the presentation of a testimonial to Dr. Jelf, should throw themselves into the Worms committee of old students. This was evident to Mr. Worms, as well as to most others, and on the day of the meeting this gentleman attended, and expressed his desire to co-operate with the committee then formed. The Bishop of London is to be President of the Committee; Sir Wm. Fergusson and Professor Hall, Vice-Presidents; J. W. Cunningham, Esq., and Henry Worms, Esq., Treasurers; and Professor Plumptre, Professor Bentley, and the Rev. B. W. Gibson, Honorary Secretaries.

THE FEVER AT TERLING.

THE condition of Terling is still a deplorable one; the work of cleansing and removing nuisances is at a standstill for want of workmen. The privies and cesspools, which were supposed to have been emptied, are almost in as filthy a condition as ever. The well which had been begun to be sunk by order of Lord Rayleigh, is abandoned, as, after sinking about thirty feet, they could not find water, and it was estimated that a hundred feet more digging would not then be followed by water, but would require an additional boring of two hundred feet. This is what one would naturally expect in such a formation, as the clay would have to be penetrated before the chalk could be reached. However, the water supplied to the reservoir at the inn is a great boon to the inhabitants. The schoolroom is filled up with beds for between thirty and forty children, who are attended by the Sisters of Mercy and others. The poor women are anxious to leave their pestiferous homes and be removed to a temporary fever Hospital made of iron; but although the authorities have been advised to erect one for more than a month, no such accommodation exists. This is most unjustifiable. Had an infirmary of this kind been erected in the first instance, it is more than probable that half the lives might have been saved. If the healthy part of the inhabitants were to encamp at some distance from the village while their houses and cottages are being set in order, much good might accrue even at this time of the year. Such a plan was adopted in Somersetshire, when the gaol fever broke out in one of the assize towns, and was followed by the happiest results. This was done in midwinter. From January 24 to 31 there were six deaths from fever at Terling. A correspondent who has borne the brunt of this fearful epidemic, and to whom we are much indebted for information, writes:—

"There seems to be no chance of our seeing the end of this fearful epidemic, unless some very active means are adopted to stamp it out, for fresh cases are occurring almost daily. I think, however, something will be done with regard to the iron Hospital, as we have got the ladies on our side."

Mr. Haviland has proposed to send a gang of thirty or forty able-bodied labourers from Poplar down to Terling to do the work of cleansing thoroughly and promptly. The Chairman of the Board of Guardians has kindly consented to see the men on the subject, and as soon as their consent is obtained, the authorities at Terling will be communicated with. There has been enough death as the sequel of delay: we heartily hope there will be no more.

THE CONSTITUTION AND RECONSTRUCTION OF OUR ARMY MEDICAL SERVICE.

WE may direct the attention of our Army friends to the correspondence which has lately appeared in the *United Service Gazette*. The reconstitution of the Army Medical Department, and the placing it upon a new footing similar to that of the other scientific corps, have frequently been advocated, and very considerable difference of opinion has been expressed. We believe that there are many thoughtful Medical officers who view the scheme with favour, but it is not generally popular. There cannot be two opinions, we imagine, as to the increase of power and status which it would give to the department, and the saving to the State which would be effected by it. But this reconstruction must go hand-in-hand with the general Hospital system, and it is not too much to say that that system, as at present established, is most repugnant to military Medical men. The machinery — composed of a Governor, Captain of Orderlies, Superintendent of Nurses, and what not — is an expensive and cumbrous system of circumlocution. The Medical element, which ought to possess supreme authority, one would think, in an Hospital above all places, is subordinated so as scarcely to exercise any executive power; and the result is that no sooner is this question mooted than men shrug their shoulders, mentally cast up their experience of the general Hospital system in this country, balance it against the comfort and workability—to coin a word—of the older regimental system, and tenaciously adhere to the latter rather than encounter any change. What we want to obtain is that system which shall be the best for the interests of the soldier, the general good of the service, the economising of the taxes, and the efficiency of the Medical service as an integral part of the Army. And when we say the efficiency of that service, we have in view not only its ordinary operation during times of peace, but its ductility and capacity for extension which shall best fit it for meeting any sudden and great strain, such as it must necessarily undergo on the occasion of a large war. We have already touched on these important subjects on more than one occasion, and we regard the objects involved as deserving a very mature and calm consideration. It is not improbable, therefore, that we may have occasion to discuss the matter more fully hereafter.

MR. BALDWIN LATHAM ON THE CROYDON MORTALITY.

WE have received from Mr. Baldwin Latham, C.E., President of the Society of Engineers, a note as to the mortality at Croydon. Mr. Latham is one of the first of our engineers in matters connected with sewers, and his opinions are always worth listening to; on the present occasion, however, he sends us facts as well as opinions. From a calculation as to the number of houses in Croydon parish actually inhabited, and the average number of people found to dwell in each, he arrives at the conclusion that there are now 50,755 people in the parish; the annual number of deaths is 843, making a mortality of 16·60 in the thousand. In 1861 the inhabitants numbered 30,240, with an actual mortality of 557 and a percentage of 18 in the thousand. Mr. Latham also tells us, but without giving us his calculations, that for thirteen years previous to the introduction of any works the average mortality was 23·66 per thousand, but that for the next thirteen years it was only 18·64 per thousand, showing a saving of 5·02 in the thousand; further, that the year before the drainage works were opened, the mortality was 28·16 per thousand; last year, as said above, it was only 16·60. We need hardly say that Mr. Latham is quite aware of the necessity for sewer ventilation. In fact, he insisted on this in a special manner in his inaugural address at the Society of Engineers.

CHOLERA AT BUENOS AYRES.

A TERRIBLE epidemic of cholera has been devastating Buenos Ayres, and has swept away immense numbers of the population. As usual, the neglect of all sanitary regulations seems to have been associated with the pestilence. Sewerage and water-supply were of the most primitive character, and during the continuance of the cholera the panic which seized upon the people rendered all efforts to subdue the epidemic absolutely unavailing. The tale, as told by the Buenos Ayres *Standard*, is full of the most revolting incidents. Funerals were in every street, sickness was in every square, and coffins were carried wholesale in furniture vans. At the public cemeteries might be seen coffins piled in heaps waiting for interment. Hands could not be found in sufficient number to dig the graves. The filth and refuse from the houses lay in boxes before the doors; and thus, panic-stricken and paralysed, the people were struck down in thousands. At last a safety committee was appointed, and, under judicious sanitary measures, the violence of the epidemic was diminished.

ROYAL MICROSCOPICAL SOCIETY.—The annual meeting of this Society will be held on Wednesday evening, February 12, at 8 p.m.

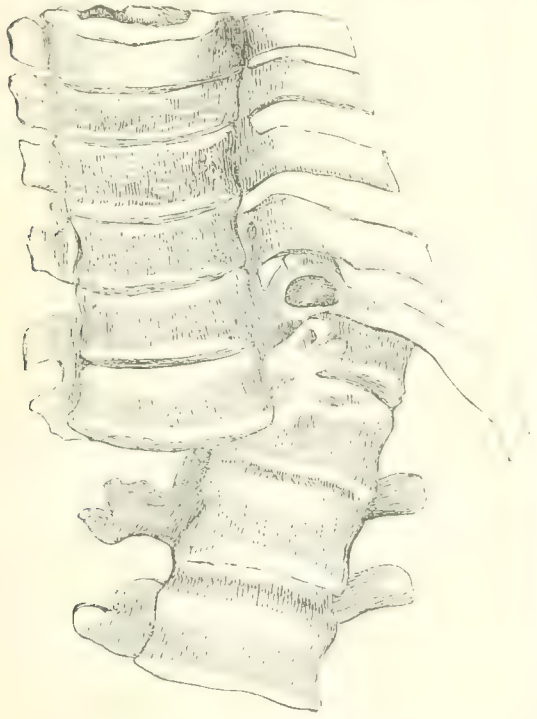
NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

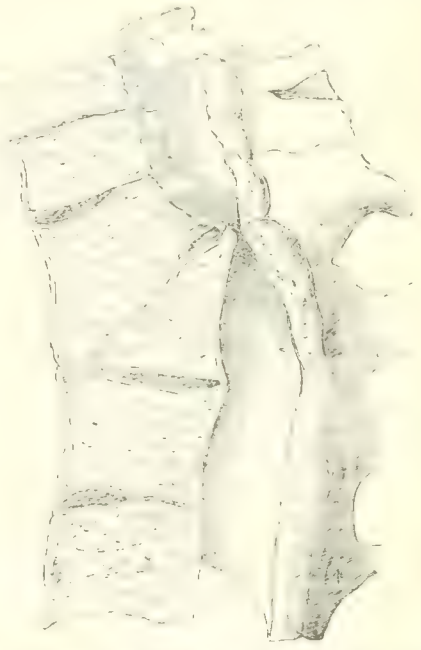
(Continued from page 127.)

The Dupuytren Museum—Fractures of the Spine—Dislocation with great Displacement—Fracture and Displacement, with apparent Permanent Narrowing of the Canal—La Charité—Chopart's Amputation, etc.—Hospital for Sick Children—M. Giraldès' Clinique—Excisions of Joints—Ophthalmia—Rape on Infants—Mal-union of Fractures and subsequent Operations—Dr. Liebreich's Consultation-room—Strabismus Operations—Black Cataract—Hôtel-Dieu—M. Maisonneuve—Treatment of Fractures—Ovarian Dropsy and Treatment by Injections.

December 31.—*Musée Dupuytren.*—Amongst the fractures of the spine, I of course sought with much interest for specimens which might favour the practice recently recommended by some Surgeons of endeavouring to relieve the paraplegia which attends such cases by trephining the vertebræ. Such specimens, however, do not exist either here or elsewhere. All here, excepting two, show the more usual condition of things—that, namely, in which the bones after fracture have returned almost to their normal position, and have left the spinal canal of almost normal size, and the crushed cord free from compression. The two exceptions are very remarkable specimens. In one the vertebræ have been wrenched com-



pletely away from each other, and displaced to such an extent that one is on a level of two inches above the other. The displacement occurs between the first and second lumbar vertebræ, and the deformity during life must have been extreme. There are appearances which suggest that the patient lived some time. The cauda equina must of course have been torn through. Extension by pulleys might possibly have done something to reduce the displaced bones, but there is nothing for the trephine to do (No. 4A, M. Cassius, 1863). The other specimen (5A, M. Fano) shows a permanent displacement at the twelfth dorsal. The body of the vertebra above is carried forwards, so as to crush the front part of that below it, whilst the posterior part of the latter projects backwards into the spinal canal and narrows it very much ("reduit à deux millimètres"). In this the cord must have been crushed and permanently compressed, but the compression is not due to any depression of broken laminæ, but to the angular bend of the whole column, and ought to have been rectified, if at all, by extension of the trunk, and not by trephining. The bones are dry, and in section present the condition shown in the appended woodcut.(a)



January 1, 1868.—Went through M. Gosselin's wards in La Charité. There were three or four patients under treatment for fracture of the patella, and in all the two fragments were very close. It is still the custom here to elevate the limb. One man had bands of india-rubber crossed obliquely over the fragments in the same way that we usually employ plaster. There was a case of cataract, in which extraction had been performed, and also several other eye cases. I was interested to observe that although Chopart's amputation has been written against in French journals, yet that it is still practised. M. Gosselin has a boy under his care in whom the foot has been removed by that method on account of disease of the anterior tarsal articulation. The stump promises to be a very good one, and the heel is not retracted.

January 2. At the Hospital for Sick Children in M. Giraldès' clinique. No Surgeon visiting the Paris Hospitals should omit this one. It is large (600 beds), and exceedingly well managed. M. Giraldès has as his Surgical share no fewer than 120 beds. The grounds, garden, etc., are very extensive and well planned. As there is a large department for chronic cases in which patients often remain several years, a school is attached, and also a large gymnasium. There are three country convalescent institutions in connexion with it—one at the sea near Boulogne, and two inland.

M. Giraldès, who evidently takes a most keen interest in his Hospital work, showed me many important and very interesting cases. He has tried excision of the knee-joint and resection of the head of the femur in a considerable series of cases. He joins, however, with other Paris Surgeons in not speaking at all favourably of either operation. Yet the wards of this Hospital leave little to be desired in the way of sanitary advantages. There is at present one case under care, and doing well, in which the head of the femur has been removed. In a bed near it is a child whose lower extremity has been amputated for disease of the knee, and who, as usual after that operation, has made a rapid recovery. Lithotomy is a frequent and successful operation—six or seven cases a year, with a mortality of only one in thirteen or fourteen. I was astonished at the large number of cases of chronic ophthalmia, many of

(a) I have allowed the above to stand as I wrote it at the time. The [illegible] I obtained permission to have the specimen out and examine it. I found that the narrowing of the vertebral canal was [illegible] appearance being due to the position at which the section had been made. Close to the right of the line of section the canal accommodated a forefinger quite easily. The description appended to the [illegible] which does not allude as regards the place of section, is misleading as to fact; and we have here no exception to the general rule, that the spinal cord is not permanently compressed after fracture.

them with granular lids. Of these I saw a series of fifteen or twenty, most of them under treatment by nitrate of silver. There was also a large group of cases of ulcer of the cornea, and one of diphtheritic ophthalmia. M. Giraldès told me that he had treated thirty cases of the latter class during the year, the disease having been epidemic.

I saw a child of 8 under treatment for vegetations on the vulva, the result of intercourse. She was evidently of precocious development, but the case did not seem to cause much surprise, and Dr. Giraldès told me that he had admitted a child of 4 on account of injuries caused by attempted rape.

There was an extreme case of rickets, attended, I think, with more deformity than I have ever seen. The wrists were so much displaced forwards as to simulate congenital dislocations. Casts had been taken of them to illustrate this peculiarity.

Dr. Giraldès showed me the plaster casts of two very interesting cases of deformity after fracture of the tibia and fibula, in each of which he had performed resection. In each the bone was bent at the site of union almost to a right angle; in one, the worst, it was quite so. In the first case the patient had left the Hospital cured by the operation; in the second the child is still in. The limb is now straight, and the wounds healed; but although the periosteum was carefully preserved at the time of the operation, union is as yet not perfect. There were, of course, numerous cases of disease of the hip, spine, etc., and of deformities after burns, etc. I was interested to note the comparative absence of cases of congenital syphilis.

Only one case (an instance of condylomata in a child about two years old) was shown me.

At noon I had the pleasure of attending Liebreich's consultation room in Rue Git-le-Cœur for diseases of the eye. Amongst many other cases I saw several in various stages of cure after operations for strabismus performed according to the modified method recently introduced by this distinguished ophthalmic Surgeon. The results in several were certainly all that could be wished. The advantages claimed for it are that it is more certain and more effectual than the subconjunctival method ordinarily performed, whilst it is not liable to the risks of the old plan—that the eye may be everted, or may become prominent, or that the caruncle may be lost. In several of the patients shown it was impossible, excepting by the most careful scrutiny, to observe any evidence of the operation.

A very interesting case of so-called "black cataract" was operated upon. The nucleus of the cataract was exceedingly dark, whilst its periphery was of the common grey-white tint. The patient had lost the other eye by an accident some years ago, and in the cataractous eye he had also by an injury suffered displacement of the pupil upwards. Dr. Liebreich explained before the operation that the black condition of the lens was a sign of bad augury as regards the soundness of the eye—that very often in such cases the patient was amaurotic also, and the vitreous diseased. He proceeded to operate after Graefe's method, making a section downwards; but his fears were, unfortunately, only too well grounded, and the vitreous proved to be fluid, and ran out. This awkward complication necessitated the use of a spoon, by aid of which the lens in its capsule was removed. It proved to be a beautiful specimen of the "cataracta nigra," so far as its nucleus was concerned. Dr. Liebreich made some interesting clinical remarks on this case and on others. His clinique was attended by a considerable number of students, about half of them being Germans.

Friday, January 3.—At the Hôtel-Dieu, in M. Maisonneuve's wards. The following were among the more important points noted:—His present rule of practice in fractures seems to be to apply, from the first, plaster of Paris splints. These do not encase the limb, but merely fit its sides. I saw three fractures of the tibia, one of the femur, and one of the fibula under treatment by this plan, and not any in which wooden splints were used. I saw two cases of fracture of the neck of the femur in old persons treated by merely placing a pillow under the knee without using any splint, and was told that this was the usual plan. A case of cancer of the breast had just been admitted, for which M. Maisonneuve stated that he intended to adopt the chloride of zinc method of destruction. The plan of thrusting long sticks (*flèches*), consisting of chloride of zinc paste, into cancerous tumours is one for which Surgery is, I believe, indebted to him, and it is one still [illegible]. He spoke in a [illegible] very warmly as to its advantages, its efficiency in destroying large and [illegible] its freedom from the risks which attend excision in respect to hæmorrhage, erysipelas, etc.

In the women's ward there was a patient under care on account of ovarian dropsy, for which injections with iodine had been practised. The tumour had, however, refilled; to-day she was taken into the theatre, and again tapped, after which nitrate of silver in an armed probe was introduced into the cyst. M. Maisonneuve stated that he believed the cyst to be unilocular, and that he considered nitrate of silver to be more effectual than iodine in setting up a fibrinous inflammation in serous cavities.

Lastly, I listened with interest to a clinical lecture by M. Maisonneuve on the general treatment of ovarian dropsy, and on that of cancerous tumours. Of this, however, as it resulted chiefly in the recommendation of the measures I have already mentioned, I will not attempt any abstract. His visit, lecture, and operation occupied together from 9 to 11.20.

(*To be continued*)

LECTURES IN GRESHAM COLLEGE.

By E. SYMES THOMPSON, M.D.

The Gresham Professor of Physic commenced his Lecture on January 14 by observing that for the preservation of health we need, besides pure air and pure water (the subjects of the last lectures), good food. Plants elaborate from the inorganic kingdom material from which the highly organised tissues of animals are built up. English flour contains, besides 60 per cent. of starch, more than 10 per cent. of gluten, which has about the same composition as flesh; and in flesh the proportion of dry nitrogenous compounds may be roughly taken at about 13 per cent. Meat, however, contains much more fat (a non-nitrogenous compound, like the starch in wheat) than is generally supposed; in good beef, mutton, or pork, there is seldom less than three or four parts of fat to one part of nitrogenous constituents. The proportion of fat in the edible parts of oxen, sheep, and pigs varies from 15 to 50 per cent., the dry nitrogenous constituents from 9 to 18 per cent. The fatter meat is, the less water it contains, fat pork being the fattest and least watery, veal the leanest and most watery meat. All kinds of fat are nearly alike in composition. In an Englishman's food most of the fat is animal fat. In nutritive value as food one part of fat is equal to two and a half parts of starch or sugar. Lawes and Gilbert found the proportion of starch—or its equivalent in fat—to one part of nitrogenous constituents to be in meat 8·71, and in bread 6·80. So that flesh diet contains more non-nitrogenous matter in proportion than bread.

Liebig's great mistake in regard to the double function of food was that he maintained that the "flesh-formers" contribute nothing to the production of heat, whereas muscular work may in fact be performed either on an exclusively nitrogenous or an exclusively non-nitrogenous diet. Starch and fatty food are the chief, not the only, sources of force. To be available for muscular work food needs only to be digested and assimilated—it is not necessary to transform it into tissue. All force in the body is generated in the blood. The vessels are in fact the fireplace in which combustion occurs; the blood—a slowly-burning liquid—is the oil in the flame of life. Heat is only one form of force, and work cannot be effected in the body without the simultaneous production of heat. A bare subsistence diet as consumed in the body would yield a force of about 2000 "foot-tons,"—*i.e.*, raise 2000 tons 1 foot vertically. The average diet of adults would yield about 4000 foot-tons per diem; hard work diet 5000. Taking the average, the 4000 foot-tons may be assumed to be thus disposed of in the body:—

	Foot-tons.
In the development of heat, about	3440
Work of heart, lungs, stomach, etc., about . .	375
External work, estimated at daily walk of 10 miles	185
Total	4000

So that the force expended as heat in the body is about six times as much as that expended in work. The above quantity of heat would be sufficient to boil 5½ gallons of ice-cold water, or to raise 172 sacks of coal to the top of the Monument.

The amount and cost of various articles of food required to perform this 4000 foot-tons of work in the body was shown in a table adapted from a paper by Professor Heaton, on "A Hard Day's Work," in *Macmillan's Magazine*. From that it was seen that ¾ lb. of beef fat, costing 6d., is equal in force-producing power to 4½ lbs. of potatoes, or 1¼ lbs. of isinglass, at 28s., is equal to 3 lbs. of bread at 6d. Comparing with

these the caloritic value of coal, we find that equal quantities of force can be obtained by burning 1s. worth of coal, 35s. worth of oatmeal, 6l. worth of butter, or 20 guineas' worth of lean beef. Food is an expensive kind of fuel. Human labour can never compete in economy with steam.

It is probable that only the nitrogenous elements of food contribute to the restoration of tissue. It is doubtful whether the wear of tissues is increased by work. Muscular disintegration is certainly not the cause of muscular work, nor can the amount of tissue disintegrated be inferred from the amount of urea excreted, for a great deal of urea is formed by direct oxidation in the blood.

The quantity of food consumed without increase of weight and without external work is enormous. In the course of a year, a pig weighing 120 lbs. was found to consume 5110 lbs. (40 times its weight) of potatoes. Horses fed on potatoes cannot work. The available labour in a horse or man may be measured by the food consumed. The often-quoted Dorsetshire labourer, supporting his family on 8s. a week, existing on vegetables with a little fat pork on Sundays, would doubtless, if better paid and better fed, compete at less disadvantage with the highly-fed stalwart "navvy."

The influence of national diet on national character has not been scientifically investigated, but some things lie on the surface. Is it not probable that the favourite oatmeal and milk of our hardy Scotch cousins has something to do with that quiet perseverance, steady determination, and what is popularly called clear "grit," which is so marked a feature in their national character? Are not potatoes and whisky answerable for much of the inflation without endurance, the dash without balance, of the Irish? And may we not honour the "roast beef and beer of old England" as generating British "pluck," undaunted placid endurance, and other typical virtues of John Bull?

From illustrative tables conclusions were drawn as to the best and most economical way of supplying the needful nitrogen and force-generating food. Not by eating 2¼ lbs. of bread or 7½ lbs. of rice or potatoes, or 20 lbs. of cabbage, but by adding to these cheese, sugar, beans, or meat, in such quantity as to supply material for tissue restoration, the heat and force-giving food being obtained from the more economical and more bulky sources.

As a minimum workhouse diet the Poor-law Commissioners advise 25 oz. of food. In the Edinburgh Workhouse, however 13 oz. of vegetable and 4 of animal food is considered adequate. The celebrated Cornaro lived to the age of 95 on 12 oz. of food, chiefly vegetable, and 14 oz. of light wine; and life has been prolonged for twenty, thirty, and even sixty days without any food except water. The quantity of food that may be consumed is, on the other hand, enormous. The Siberian Cossacks were very discontented when put on such "short commons" as 8 lbs. of meat a day, their usual consumption being from 12 to 20 lbs. Franklin mentions a young Esquimaux who ate 34 lbs. of food, including candles, in twenty-four hours, and another who, after eating 14 lbs. of tallow candles, seemed ready to consume as many more! An Esquimaux is, indeed, little more than a self-supplying oil lamp!

Scientific research and practical experience alike teach this, that a rational and judicious dietary is absolutely essential to health. The right quantity, the right times of our meals, a due variety, enough and not too much, are necessary if we would secure that greatest of all earthly blessings, *mens sana in corpore sano;* and it cannot be too deeply impressed on us, who dwell amidst the vastest accumulation of human beings on the face of the globe, that this matter of food must not be considered in relation to ourselves alone, to one or another class of the community independently of the rest. It is a vital concern for all; here rich and poor meet together; here the old adage is inverted—"*Reges delirant, plectuntur Achivi;*" here, if the people starve, the princes perish. Nowhere more certainly, more emphatically is the Divine law fully borne out by practical and too often bitter experience. We are all members one of another. "If one member suffer, all the members suffer with it."

Disorders of primary and secondary digestion resulting from badly selected food formed the subject of the remaining lectures. Indigestion was shown to be not a disease, but a sign or symptom of deranged function calling for early care and management, lest structural change be induced. While an excess of vegetable food, whether starch or sugar, leads to fermentation, flatulence, and that general state of feebleness usual to vegetarians, a diet too exclusively animal is oppressive to the stomach and—except under circumstances of great muscular exertion—distinctly injurious to health. An excess of fat disturbs the action of the liver, but the addition of some solid indigestible matter—*e.g.*, sawdust or birch bark—to retard digestion has been found by the famishing Finns this winter to be an invaluable addition to their sparse oily food.

The lecturer showed that mastication is not only mechanically valuable, but the chemical action of saliva upon starch (exhibited by the iodine and copper tests) indicates its importance in the digestion of farinaceous food. Cold water is a good tonic to the stomach, while alcohol retards digestion. Out-door exercise is important at meal times to clerks or warehousemen shut up in close city shops or offices. Hurried meals, insufficient and unwholesome food, prolonged anxiety are among the frequent causes of indigestion; whereas little more than common sense and common caution are needed for the prevention of dyspepsia, deep thought, scientific training, and varied experience are essential for its cure.

The influence of cow's milk, of ass's milk, of mare's milk (as given in the form of khourmese, a slightly intoxicating fermented drink used in the steppes of Tartary), of beef-tea as prepared by the aid of acid and rennet (Marcet), of Liebig's "Extractum Carnis," and other simple nutritious foods, was enlarged upon, attention to diet in deranged digestion being of at least equal importance to medicinal treatment.

After explaining what assimilation is, and what is meant by a blood disease, the Professor spoke of gout as an example of blood disorder dependent on mal-assimilation, and usually developed in those whose digestive organs have long borne, without complaint, an excess of nitrogenous food and stimulants.

If from hereditary tendency or from faulty diet (generally too much meat, porter, or port wine) this disorder of secondary digestion occurs, the blood becomes charged with a material (capable of detection by crystallisation of the serum) which, while floating in the blood current, gives rise to cramp in the muscles, creeping and prickling sensations in the skin, insupportable irritability and peevishness of temper, etc. When a "fit of gout" occurs, the peccant material is localised in a joint, and the blood is for a time freed from its evil humours. In the course of Consumption, the same thing often occurs; a sense of torpor, depression, and general malaise, is followed by a feeling of immediate relief when deposit or softening occurs in the lung: undue hopefulness then takes the place of previous depression, the unnatural activity of the destructive processes gives rise to a sense of active vitality, whereas torpor, with retention of all the secretions and excretions, induced general heaviness and mental despondency.

It is a fallacy to desire an attack of gout as likely to "clear the system." Since we cannot throw off and renew our painful joints as lobsters do their claws, we must not encourage local disease for the sake of relieving constitutional oppression, but try and remedy the blood disorder before it is localised. When once the enemy is entrenched in the citadel, he is sure to renew his attacks on the least defended outposts. Tables were exhibited showing the quantity of alcohol, of sugar, and of acid in different fermented drinks. The effects of porter-drinking on brewer's men and "ballasters," and of various wines and viands among the wealthier classes, were insisted on.

The public demand from the Physician a remedy to cure their complaints without any change or sacrifice on their part. No such remedy exists or will ever be discovered. Moderation and self-control in diet will alone eradicate the evil. Colchicum, even in the hands of the unskilled, will relieve the immediate attack; but, the sufferer will soon find to his cost, it is an "edged tool" not to be played with. Medicine, like food, must be used, not abused, and much judgment is needed rightly to use it. Another common fallacy is to suppose that reading a Medical book enables a man to treat disease. It is easier for one ignorant of arithmetic and algebra to work out a mathematical problem, than for a man who knows nothing of physiology and pathology to work out a therapeutical one. People have often treated themselves for gout in the stomach, who were really suffering from pork in the stomach! Medical books have, it may be observed, a wonderful effect in making the reader fancy himself a sufferer from the disease described. The early premonitory symptoms of most diseases are vague and indefinite, needing practical experience and scientific knowledge rightly to understand them.

The Gresham Professor proposes to give three lectures in Easter term:—1st, on Sleep; 2nd, on Pain; and 3rd, on Hysteria, Hypochondriasis, etc.

ABYSSINIA.

We have been favoured with the following description of the nature of the country already traversed by the troops. Our correspondent mentions that it is mainly compiled from one of the series of able and interesting reports furnished by Assistant-Surgeon Martin, who accompanied Colonel Merewether on the first journey of *reconnaissance* in November. It gives an admirably concise description of the route from Mulkuttoo to Senafé, which has been divided into five stages, as follows:—

1. Mulkuttoo to Komaylee . .	10½ miles.
2. Komaylee to Upper Sooroo . .	12 ,,
3. Upper Sooroo to Undul Wells .	12½ ,,
4 Undul Wells to Rareeguddy .	16½ ,,
5. Rareeguddy to Senafé . . .	8½ ,,

First Stage.—First five or six miles in a westerly direction, along alluvial plain, the traffic on which has already caused a very disagreeable amount of dust; the latter part of the way is along an undulating plain of firmer nature and less dusty, thickly covered with stunted babool trees. Komaylee is at the entrance of a defile formed by the Rareeguddy torrent during the rains. It is about 400 feet above sea level. The first site selected for the camp was objectionable, being too much within the defile, and consequently overhung by the surrounding hills. But the present camp is outside the defile, and a large space has been cleared. The soil is dry and gravelly. Rock formation metamorphic. Nothing in the way of grass, but the neighbouring hills are green with the babool (acacia), now in full leaf. Heat considerable. Maximum temperature in shade of tent 96° to 100°; minimum 63° to 66°. Forenoons close and disagreeable, but the afternoons and evenings are made refreshing by the sea breeze; nights cool, dews moderate. There is here an abundant supply of good water from four or five wells sunk through the rock to the depth of about twelve feet. The water is rather hard from containing lime, but not to a hurtful degree. It is free from organic impurities. There is plenty of firewood. When the railway is completed from this station to Zoola, the landing-place, water can be sent down by rail. It is probable also that pipes for its conveyance may be laid. The supplies are chiefly goats and sheep, and a little milk.

Second Stage.—Through the bed of the torrent, along the banks of which a fair road has been already constructed, with the exception of a few miles which will soon be completed. The defile narrows, and its walls increase in height, and become more rocky and bare, until, at a distance of eight miles, the Sooroo pass is entered. The pass is four miles long, and is bounded on either side by bare precipitous cliffs, some being many hundred feet in height. It is much obstructed by huge boulders of granite-like rock and gneiss. A stream of clear water runs through its entire length, springing from the ground at the top, and sinking again at the bottom of the pass. On emerging from the pass, the defile widens out, and ground for another camp has here been selected on the sloping sides of the left bank. Height above sea level 2060 feet. Days warm; mornings, evenings, and nights cool; dew moderate. Temperature, maximum in shade of tent, 90°; minimum exposed outside, 57°. The utmost attention to sanitary arrangements will be required at this camp—the space is so limited. The water will be very liable to pollution from the numbers of camp followers and baggage animals. There are two ravines which can be used as latrines.

In addition to the stream a plentiful supply of good water can be obtained by digging a few feet. But, from the limited space and the superficial water, we need not be much surprised if we shall find that this does not turn out a very healthy camp.

Third Stage.—A tolerably smooth road, formed of gravel and shingle in the torrent bed, is being constructed. The defile widens out from 100 to 200 yards. It is very winding, and bounded by high rocks of schistose on each side, tilted up at great angles, sometimes nearly vertical. Vegetation becomes more plentiful; but of grass, still, there is none. The [illegible] mostly [illegible] and acacia trees, a few tamarinds, and several of the Rhamneæ.

At a distance of eight miles, a scanty supply of water was discovered; but it had been rendered filthy and quite unfit for use by the dung of goats and other animals. This place is called Barutguddy; it is 2640 feet above sea level. The source of the water is about 400 yards up a steep ravine on the right side. The quantity is so scanty that it cannot be depended on for supply of troops.

Two miles further on the defile spreads out into an open space, where water was discovered in two pools about 300 yards up a ravine on the right side practicable for mules. Quality of the water good, but quantity small, the source being a scanty spring from the rocks; the season, however, has been unusually dry. At Undul Wells, 3460 feet above sea level, the supply of water is so limited as to be only sufficient for a small force of infantry, without baggage animals or many camp followers. Cavalry, if brought up here, must perform the whole journey from Upper Sooroo to Rareeguddy, 28½ miles, in one march, as the supply of water would not be enough for men and horses.

Fourth Stage.—After a few miles a large open plain thickly covered with brushwood and aloe plant is reached; the Euphorbia Kolguol (described by Bruce 100 years ago), with its candelabriform branches, is also very common. Guinea fowl, spur fowl, and two species of deer are found in the jungle. The plateau of Abyssinia becomes visible about four or five miles to the west. Beyond this plain the defile again narrows and becomes very winding. An enormous number of dog-faced baboons here make their appearance. Tamarisk and acacia trees are common, also some trees of the fig tribe. The torrent bed is shingly, but may be converted into a good road. At Henderta, a distance of eleven miles, clear water was found about 800 yards up a ravine. At Rareeguddy the pass in some places is only about five yards wide. There is here a stream of clear good water. Temperature from 83·5° to 29·5°.

Fifth Stage.—Torrent-bed comparatively smooth, but winding. Jungle very beautiful, containing mimosa, juniper, wild rose, Kolguol, fig, sycamore, and wild olive. After a distance of four or five miles, the torrent bed is finally quitted for a path ascending the hill leading up to Senafé; in some places the ascent is very steep, but is fit for camels and mules. It runs between low hills for about a mile and a half, and then opens out into a large space surrounded on all sides by fantastic ranges of low hills, under one of which Senafé is situated. The land appears to have been cultivated last season; the soil is clay, covered with loose stones, the rock cropping out here and there; at the low-lying parts black cotton soil is seen. There is room for a large camp. Water is good and abundant, forage plentiful; supplies, barley, ghee, honey, cattle, sheep, and goats; firewood is scarce, and must be carried two or three miles from the hills. Temperature from 73° to 40° in the daytime; nights bitterly cold.

From Komaylee to Senafé there are no villages along the torrent-bed, as they would certainly be swept away during the rains. The winter rains in December, January, and February are light, and seldom cause much flood above Sooroo; but the regular tropical rains in June, July, and August cause tremendous floods, and convert the passes into roaring torrents. Travelling during these rains through the lower regions would be most dangerous, particularly as the approach of the torrents is so sudden, the sky in the lower parts giving no indication of the rain.

The route above described, notwithstanding its many difficulties, is certainly better than the one through the Hadas torrent-bed, which is about the same length, but is much more obstructed, and the final ascent is much steeper.

Senafé is a miserable village, containing about 200 or 300 inhabitants. They are Mahometans, appear to be of the Arab stock, but in some cases mixed with negro blood, and their legend is that they came from Yemen about 250 years ago. Polygamy prevails among them to a limited extent, but it is considered to be an expensive luxury.

The neighbouring village, Thumaganoo, is inhabited by Christians; both are under the dominion of the ruler of Tigrè. Dysentery is said to be rare and mild, malarial fevers rare, ophthalmia frequent, phthisis uncommon, tænia unknown, leprosy rare, syphilis very rare, ulcers common, especially among the aged. Small-pox breaks out occasionally; the Christians of Thumaganoo are said to employ inoculation. Cholera is said to have appeared at Senafé in 1856, and to have caused seventeen deaths.

The troops at Zoola, the landing-place at Annesley Bay, are in good health. The steamers supply 30,000 gallons of water from their condensers daily; and since this increase in the water supply, combined with other sanitary arrangements,

the mortality among the baggage animals has diminished. The rations for the European troops are of fair average quality, much the same as in India. Beef is the only meat; bullocks can be purchased for eighteen or twenty rupees. The vegetables issued are potatoes and onions daily, and occasionally compressed vegetables. Bread is issued regularly.

There are to be depôt Hospitals at each of the halting-places mentioned above, for the treatment of casual cases among the troops moving to the front. An Assistant-Surgeon has been detailed for each of these Hospitals.

GENERAL CORRESPONDENCE.

CHOLERA.

LETTER FROM DR. C. R. FRANCIS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Cholera may be looked upon now as a resident in Europe. Scarcely a year passes without an outbreak somewhere on this continent; England herself, too frequently, not escaping. The Profession is constantly called upon to engage in encounters with this its most formidable foe, which has led to various treatises on the subject. So much has, in fact, already been written, and so well, about cholera that it may seem an act of supererogation in me to attempt to add anything to the subject. Yet, having had considerable experience in the treatment of the disease, and especially recently, in the wards of the Medical College Hospital in Calcutta (where there is a cholera ward, with some 600 admissions annually, and where nearly every patient is admitted in a state of advanced collapse—the condition which is usually considered so hopeless, but in which a particular plan of treatment has there met with very fair success), it has been suggested that I should publish the result of that experience; and, although cholera is happily not now with us, still its reappearance may take place at any moment, and the opportunity soon occur for testing the value of the treatment referred to. I will therefore ask you to be good enough to give it a place in your columns.

It is unnecessary to enter here into the question of the pathology of cholera, although I should like to take the opportunity of stating that, so far as my own experience has extended, the lungs in this disease are not usually anæmic, as enunciated by Dr. Johnson. On the publication of Dr. Johnson's book, I made a point of holding a careful post-mortem examination in every fatal case, with a view to testing the accuracy of the statement, based, as it was, upon the observations of Dr. Parkes. The general belief amongst Medical Practitioners in India is that the lungs are very apt to be congested in cholera; and this was the condition which I again found—as I had frequently found before in my investigations—quite as frequently as the opposite one of anæmia. A Medical officer whom I asked to assist me in the inquiry, and who had unusual opportunities of making post-mortem examinations, met with the same result. In truth, the lungs appear to share in the general congestion, as has been noted by various authors. Occasionally, indeed, one lung may be more or less exsanguineous (chiefly on the surface), as was seen by my coadjutor and myself, the other being congested; nay, one lung may be quite anæmic and collapsed; but the opposite condition—that of general congestion—was in our experience more common. This condition was intensified in the cases in which death had occurred from secondary causes; but it was common in simple collapse, without any complication whatever. I examined sections of the lung under the microscope, with the assistance of Dr. King, House-Surgeon to the Medical College Hospital, and the first man of his year at Netley, and we found congestion of the capillaries. Dr. Parkes, our great practical authority on the pathology of cholera, states the same thing in his valuable treatise, now unfortunately out of print, and I am quite prepared to endorse all his statements, with this exception—viz., that whereas, in his experience, congestion of the lungs was the exception, in mine, and in that of those who observed with me, it was the rule. Not that this fact would invalidate Dr. Parkes's view of the pathology of the disease. It would prove no more than this—that in my cases the action of the heart was apparently more prolonged than in those which came under his observation, driving the blood more thoroughly into the minute texture of the lungs, but leaving it there. Dr. Parkes, however, believes, if I understand him aright, that the empty state of the lungs, and the accumulation of blood in the right cavities of the heart and in the pulmonary arteries, do not depend upon any want of vigour in the heart (as that organ, he says truly, often contracts to the last, and yet the lungs are empty), but upon some chemical alteration in the blood itself.

Although I am quite prepared to agree with Dr. Parkes in believing that the true pathology of cholera is to be found in some occult condition of the blood which leads to a separation of its elements, at the same time I certainly think that a part of our treatment should consist of remedies to stimulate the heart's action, with a view to its assisting in propelling the blood through the lungs, and so removing a condition which prevents its purification. But it did not require any observations to show that Dr. Johnson's view of the pathology of cholera must be incorrect. He bases his argument upon the constantly anæmic condition of the lungs (quoting Dr. Parkes), which proves, he says, that the pulmonary artery must be closed by spasm. But Dr. Parkes says that the lungs are sometimes congested. In these cases, then, there would be no spasm. Spasm of the pulmonary artery cannot, therefore, be the pathology of cholera. One word more, and I will leave this part of the subject. Dr. Parkes has, in part, based his conclusions as to the anæmic and collapsed condition of the lungs upon the fact that there is a great reduction of weight in the lungs of those who have died of cholera. He states, indeed, that he believes these organs to be uniformly so reduced in Europeans living in India. From some observations which I made myself, I am satisfied Dr. Parkes is right, and I quite believe that the reduction in weight is much greater than he expected. I have not my notes with me, so I am not prepared to commit myself to any definite statement beyond this, that I have weighed the lungs of many Europeans who have died of other diseases than cholera, and that the weight has been generally nearer twenty ounces than thirty ounces. The weight of the lungs, it will be remembered, as given by Clendinning and Reid, is from forty-two ounces to forty-five ounces. The cause of this reduced weight is an interesting physiological question. It is doubtless owing to diminished activity of the organs. As the livers of Europeans in India are apt to increase in size with increased function, so would their lungs decrease from the diminution of function. The weight of all the internal organs in India should be ascertained; and I believe the inquiry has been instituted in the Medical College Hospital at Calcutta.

Having said thus much as to the pathology of cholera, I will now speak of the treatment.

Considerable advance has been made in the treatment of this disease during the past twenty years, notably in withholding opium, and in not withholding water. I speak of the collapsed stage especially; opium is admissible and beneficial in the earlier stages, but these are comparatively manageable; in collapse it is poison. Still there is a great want of uniformity of action in the treatment of cholera, doubtless owing to the absence of uniform efficacy in any of the thousand and one vaunted plans which have been given to the world. I do not pretend to say that my plan is superior to that of others; at the same time, my sphere of observation has been a very wide one, and the class of cases which have come under treatment have been most unpromising, nearly all being in a state of extreme collapse; and the mortality has been so uniformly low under this treatment, varying from 25 to 35 per cent., that it seems, *primâ facie*, to be worthy of a trial. But with the treatment must be associated an amount of care, nursing, and watching, that will test the patience of the most assiduous. Yet it is essential, for without it no treatment will avail. I would premise by saying that I do not offer to the Profession what has not been tried by others; on the contrary, sceptical members of the Profession in India have had recourse to it, and can testify to the efficacy of the system. Nor do I pretend to any originality in it. I am much indebted for the calomel part of the treatment to my friend, Dr. D. B. Smith, late Professor of Midwifery at the Medical College in Calcutta, who had himself become a convert to it after witnessing its success in the hands of Surgeon Lithgow, of the 75th Highlanders; and to Mr. F. Webber, late Civil Surgeon in Assam, for his views about cantharides, the successful administration of which first drew my attention to the value of a diuretic in the treatment of cholera. The principles of treatment which I venture to advocate in this disease are as follows:—

1. Keep up the flagging action of the heart by diffusible stimulants. This I believe to be best effected by twenty minims of

sp. æther. nitrosi, combined with the same quantity of sp. ammon. arom. and a little water. This draught should be frequently repeated—every half-hour, or even every quarter of an hour, until the pulse is felt at the wrist. Then it may be given at longer intervals. Brandy I object to, as it leaves a narcotising effect behind, which the diffusible stimulants do not. Opium is quite out of the question in collapse, as it complicates matters, and helps to induce uræmia; and I am inclined to believe that brandy has the same effect. Some Practitioners give carb. ammoniæ, but it must be avoided when prescribing the acetate of lead as an astringent, on account of the carbonate of lead which would be formed. It is astonishing how large a quantity of the ether and ammonia mixture can be borne. I have known several ounces given in the course of thirty-six hours, with none apparently but a beneficial effect.

2. Water must be given freely—short, of course, of producing nausea. The object of this is obvious. The watery constituents of the blood have drained away, leaving only a thick tarry fluid, which, on account of its viscosity, cannot circulate through the different organs, which hence become gorged with blood, are unable to perform their ordinary functions, and so constitute the serious secondary lesions from which patients die quite as frequently as they do from the original disease. It is marvellous to think of our forefathers withholding water in cholera. Nature—the *vis medicatrix naturæ*—is prepared to destroy the effects of the poison as soon as may be, and to re-establish the human machine in her integrity; and nothing will facilitate her efforts more than restoring the vital fluid to its natural consistence, at any rate. So much is undoubtedly due to good pure water in this respect, that we cease to wonder at the marvellous cures effected by those who declare, and no doubt they are right, that they give nothing else.

3. *Astringents.*—Although the benefit resulting from astringents is by no means uniform, still, as the patient's very life-blood is being hurried out of his system in the form of proteine compounds, salts, etc., common sense surely teaches us to endeavour to arrest the discharge. As to whether the severity of the attack and the extent of the discharge stand in an inverse ratio to each other—in other words, that the more evacuations a patient has the more poison will be eliminated, and so much the less severe will the attack become—must remain a disputed question; but all who have had large experience in cholera can have but one opinion—viz., that such an idea is not borne out by facts. On the contrary, so far as my own experience goes (and I have treated about 1000 cases), although I have certainly met with some which appear to bear out the above view, I will venture to assert that the greater the purging the worse for the patient. The best astringents, I think, are sulphuric acid and sugar of lead. I would give one or the other. If sulphuric acid be prescribed, thirty minims every half-hour, with some warm tincture, should be the dose.(a) It is a common practice to give an astringent after each purging. I prefer giving it before, so as to anticipate mischief. If sugar of lead be preferred, give it in doses of from two to five grains in vinegar and water. The "sugar of lead and opium" pill, which acquired so much celebrity when first introduced to the Profession by Dr. Graves, is not admissible in the collapse of cholera—*i.e.*, the lead may be given, but not the opium. Before collapse this combination is invaluable. For the natives of India I would add to it two grains of assafœtida, one of cayenne, and one grain of black pepper. And, as a prophylactic measure, such a pill is regarded there quite as a panacea. It is admirable, in this sense, for Europeans also. I confess I have less confidence in astringents than in other parts of the treatment. Together with stimulation and cold water I look upon calomel and cantharides as the staple upon which most reliance can be placed. We hear it continually said by sceptics, with regard to calomel, "one might as well give so much whitewash." True, a great deal of the calomel remains unabsorbed, but some is taken up into the system during the period of absorption, and nothing so surely equalises the circulation and promotes the secretions (which are suspended in cholera) as this mineral. When once a green or bilious evacuation appears, the patient, as a rule, is safe. Over and over again have I sat by the bedside of one supposed to be dying from cholera—no pulse at the wrist, features cadaveric, that frightful restlessness so characteristic of the disease, all noting the apparent rapid approach of death—and, seeing the bilious stool appear, have felt that the danger was past. Others will say that they have done the same, but with different results. I do not say that all my patients have recovered, but 70 per cent have, which — from 50 to 60 being the ordinary average — tells forcibly in favour of the treatment. I am quite inclined to believe, however, that calomel alone will not produce the same satisfactory issue that calomel *plus* cantharides will do. I prefer giving calomel in large doses at longer intervals in preference to the plan advocated by Dr. Ayre, of Hull—viz., grain doses at much shorter intervals. I give as much as 30 grains or 40 grains to begin with, and repeat it every two, three, or more hours up to 150, 200, or 250 grains. In only one case, out of hundreds, have I seen salivation follow; and it yielded readily to treatment. Dysentery is to be watched for with all this calomel in the intestinal canal, and therefore it will be well to give castor oil in small quantities for two or three days after the attack is over. I do not advocate castor oil on Dr. Johnson's principle. One great benefit which, humanly speaking, is almost sure to follow its exhibition, is that there will be no uræmia. With the returning secretion of bile comes that of urine, slight at first, but soon very plentiful. The calomel should be given in powder. It is easily retained in most cases.

A curious fact is mentioned by Dr. Parkes in his work on cholera, and by Dr. Joseph Ewart in his "Vital Statistics of the British Army in India," which shows that the mortality from cholera in the earlier days of our acquaintance with the disease was much less than in succeeding years. Neither of these authorities accounts(b) for the fact; but when it is remembered that, in those days, calomel was much more used than it is now, we shall have, I think, some clue to the mystery. Epidemics of cholera were quite as severe then as now, and yet the mortality was as low as from 25 to 35 per cent.

Diuretics.—I question whether sufficient attention has been drawn to this class of remedies. The prevailing idea is that, there being no absorption, to give medicine with a view to increasing or promoting the secretion from any organ is next to useless, as it will only act as a foreign body, and be a source of mischief rather than of benefit. And if this be said of comparatively harmless remedies, how much the more of such violent measures as prescribing cantharides! Will not the kidney be excessively irritated, is asked? Already congested, to act upon it thus will surely produce violent inflammation, or some very serious mischief. What will be said when I state that I have given the tincture of cantharides in five-drop doses, till between two and three drachms have been taken in from thirty-six to forty-eight hours, without a bad symptom? An early secretion of urine has followed its use, without any affection of the kidney whatever. And, in fatal cases, I have never met with any condition in this organ different to what is ordinarily seen in it in death from cholera. I observe that, within the last year or two, diuretics have been advocated by more than one author, and I conceive that this is a step in the right direction. Few would venture upon so powerful a diuretic as this; but let me assure those who pause that they may do it with perfect safety. Mr. Webber, Civil Surgeon in Assam, has used it for a longer period than I have, and his experience of its efficacy and harmlessness is even greater than mine. It is well to combine a warm tincture with the tincture of cantharides and a little tinct. lavand. co. and sp. ammon. arom. and ether; and, looking upon cholera as a disease of malarious origin, I have always added a few drops of liq. potass. arsenitis to each dose, following it up, in convalescence, with quinine, with a view to avoiding all chance of a relapse, for relapses are occasionally not uncommon.

With regard to frictions, if agreeable to the patient (and they often are in spasm), I would encourage them. As I said before, good nursing is a *sine qua non*. So much may be expected from this, that a Professional friend well known in Medical literature once said to me that if he were ill with cholera he should like to be put under the care of some maniac (some one with peculiar views of his own), because such a one would be sure to surround him with all the comforts of a sick chamber, and himself see that his instructions were fully carried out!

I hope, Sir, that when cholera does appear again, some one will be found who will give the above treatment a fair trial. It too frequently happens that patients at these times are merely made the receptacles for drugs. In the crisis of an epidemic, "incoherent therapeutical experiments" are

made, with no result. We learn in sanitary science, but in the treatment—the Medical treatment—of cholera we learn nothing. Some there are who deliberately do nothing when a patient is in extreme collapse. They say—"Oh, why worry him? let him die in peace!" Dr. Balfour, when advocating the use of strychnine in cholera, says:—"God help those who fall into the state of collapse!" Now, it is just in this very condition that I have found the treatment above defined so successful.

It may be presumed that, in the course of a long residence in India, I have had opportunities of testing the efficacy of various so-called cures for cholera. It is so; and I may safely say that, in collapse in cholera, I have found nothing equal to this plan of stimulants, water, calomel and cantharides, and unwearied watching. Cholera, before collapse has set in, may be combated in various ways, according to the nature of the epidemic or of the case and the constitution of the individual. I would add, in conclusion, that great care must be taken in these collapsed cases to ascertain the condition of internal organs. Patients, when apparently recovering, will be dying, it may be, of pneumonia, without any external manifestation of the latent mischief. Dysentery is a very common secondary disease, requiring early detection. Recovery from collapse will depend very much upon the normal condition of the heart. If this organ be in any way diseased, it may be unequal to the occasion. Collapse in scrofulous patients or in those suffering from any constitutional affection is rarely, or with great difficulty, recovered from. But where there is nothing of this kind, and where all the organs are healthy, the chances are favourable, being, in my experience, as 3 to 1; and if I have found it so in Europeans in India, as well as in natives, may not results equally successful be expected in Europeans who have never left their native land?

I am, &c. CHARLES R. FRANCIS, M.B.,
Late Officiating Professor of Medicine at the Medical College, and Physician to the Hospital, Calcutta.

Rochester, January 4.

THE CLINICAL SOCIETY.

LETTER FROM DR. STEWART.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your report, otherwise very accurate, of the discussion on acute rheumatism in the Clinical Society on January 24, there is one important error. I am made to say that, in the last case related by me, "the temperature shortly before death was 100·6°," instead of 110·6°, the highest temperature, so far as I am aware, yet recorded in any of these remarkable cases. This observation was made, with his usual care and accuracy, by my friend Dr. John Murray, who was then my clinical assistant in the Middlesex Hospital, on July 13, 1866.

I am, &c.

Grosvenor-street, February 3. A. P. STEWART.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 28, 1868.

MR. SAMUEL SOLLY, F.R.S., President, in the Chair.

MR. T. BRYANT read a paper

ON A CASE OF VESICO-INTESTINAL FISTULA, FOR WHICH COLOTOMY WAS PERFORMED; WITH REMARKS.

The case was one which Mr. Bryant was asked to see by Dr. Habershon in Guy's Hospital in March, 1867. The patient was 49 years of age, married, and the father of ten children. Twenty-seven years previously he had been in the West Indies, where he had yellow fever and ague. He returned home after five years in good health, and remained well for twenty-one years, or till two years before his admission, when he was seized with a violent attack of purging, and the passage of a quantity of blood. From that time he had passed at uncertain intervals slime and blood in small quantities with his motions. Eight or nine months since he passed some ounces of blood from the bowel, and seven months since he began to have pain across the hypogastrium and about the anus. Six weeks after noticing this pain, he observed flatus and a small quantity of blood and fæces pass with his urine. Of late he has suffered from difficulty in defecation, and frequent desire; but the act has not been associated with pain. His motions have, however, never been well-formed since his illness. He has never had syphilis. When coming under observation his abdomen was natural; no swelling or tumour could be detected in it. Urine was loaded with feculent deposit, and the act of micturition was most painful. On making a local examination of the rectum, extensive ulceration of the lower bowel was readily made out, and an apparent stricture high up. This ulceration was, however, free from all adventitious deposit. As the case appeared to be one of simple ulceration of the bowel, with a fistulous communication with the bladder, colotomy was suggested and performed on April 27, with the view of affording a free outlet for the intestinal contents above the seat of the disease, and the hope that the fistulous vesical communication would subsequently close, and the ulceration of the bowel heal; the certainty existing that relief to the patient's suffering would be afforded for a time, if not permanently secured. The operation was performed without difficulty, Mr. Bryant making an oblique incision from above downwards and forwards, its centre passing across the middle of the external border of the quadratus lumborum muscle; the object of this incision being to give plenty of room. Immediate relief was experienced by the patient. In two days the urine became clear, and was passed without pain. An abscess subsequently formed in the perineum, which was opened by a deep incision; but this soon healed, and everything went on well till June 20, when a change took place. Abdominal pains appeared in the region of the bladder, and some constitutional disturbance. On June 25 these symptoms were relieved by a sudden rush of fæces into the bladder, and their passage with the urine. The fæces were thin, and evidently from the small intestine. From that time the man's power gradually gave way, and he sank on August 27, four months after colotomy had been performed, and two after the reappearance of fæces in the urine. After death it was discovered that the bladder, large intestine, and small intestine communicated with an abscess at the base of the bladder, and that all signs of ulceration of the intestine had disappeared, with the exception of the fistulous opening into the abscess. The left kidney was completely disorganised, and was full of thick greenish pus, as were the ureter and bladder. Mr. Bryant, in his remarks on the case, said it would be read with interest by those who had studied Mr. Holmes's paper in the last volume of the Society's *Transactions*; for it tended to support the conclusions which Mr. Holmes had drawn from the consideration of his own and other cases. It supported the conclusion "that ulcerated openings sometimes take place between the bladder and either the large or small intestine, many of which have no connexion with previous stricture of the gut, still less with disease; that in those cases in which the fæces discharged into the bladder came from the lower gut, and are consequently more solid, great suffering is produced;" and "that in such cases as are not dependent on malignant disease, colotomy, by diverting the fæces from the fistulous channel, may enable the latter to close, and thus relieve the patient's sufferings, and restore him to a condition of health and of comparative comfort." For in Mr. Bryant's case all these points were well supported; relief to the patient's sufferings was afforded, and the healing of the ulceration in the bowel followed the operation. Mr. Bryant closed his paper by making some remarks on the value of the oblique incision over Amussat's transverse and the vertical of other Surgeons. He believed it gave more room for manipulation in cases in which there is a strong probability the colon is empty, and may have to be looked for towards the pelvic brim; it takes the line of the nerves and vessels which pass from the lumbar region; it follows the ordinary integumental fold of a patient when assuming the recumbent position, and possesses all the advantages of any other line of incision.

The PRESIDENT thanked Mr. Bryant for bringing this operation again before the notice of the Profession. It had been too long neglected; in itself it was neither dangerous nor difficult. He thought that the oblique incision suggested by Mr. Bryant added greatly to the value of his paper. The great mistake in these cases was putting off the operation too long.

Dr. HABERSHON took the opportunity of correcting a slight mistake in Mr. Bryant's paper as to the condition of the man's

lungs. There was in reality slight flattening and imperfect resonance at the apex of the lungs. He could bear testimony to the great amount of relief afforded the patient by this operation.

Mr. Moore said that he did not rise to speak of the operation, which was now proved to be slight and satisfactory, but rather to make some suggestions as to the mode in which the opening into the bladder was produced. He had encountered certain cases which tended to illustrate this point. He thought there was first a small adhesion at one spot which subsequently became the seat of ulceration. Examples were frequent.

Mr. Christopher Heath said that matters were surely quite the reverse—that the ulceration came first, then the adhesion. This adhesion was merely a provision of nature for preventing death. Eighteen months ago a case came under his care in which, although the urine passed into the bowel, the fæces did not escape into the bladder. He used the rectal endoscope, and was surprised to find the large extent of gut thus displayed. Still, in this instance, no mischief could be seen. In some cases the instrument might be of service, as in the application of the actual cautery.

Mr Nunn referred to his interesting case of a sweep who suffered so much from the pain of a similar opening into his bladder as to cut off his penis to relieve it. The case was brought before the Pathological Society, and fully detailed in our columns. He declined to operate.

Mr. J. Wood would ask a question. The patient was clearly strumous, yet there was no account of looking for the tubercle. Was it the origin of the ulceration? As aiding the diagnosis of the site of ulceration, the nature of the discharge was important; this also bearing on the propriety of performing any operation. Colotomy at best was only a palliative; most died after it. There was a patient now under his care who had been ill two or three years, and by the constant and skilful use of the rectum bougie he had been able to secure closure of the opening. If the opening was low down, this procedure was best; if it was high up, it was a question whether colotomy should be employed. As to the method, he thought that the oblique incision was likely to expose more of the kidney than the old one. This it was advisable to avoid. In other respects it was good. He attached no great importance to the cutting of nerves; they soon reunited, as in one of his cases where there was perfect union of the cut ends of the median.

Mr. T. Holmes remarked that Mr. Bryant's case much resembled his, the patient dying in much the same way. There was no connexion with tubercle in other parts of the body so far as he was aware, but the post-mortem examination had been made out of town. Mr. Heath's observations were strictly borne out by his case, as there was a third ulcer in the intestine without adhesion. Mr. Wood remarked on the diagnostic value of the discharge; in his case this was well shown by the discharge of urine. He did not think much of the endoscope in such cases. The diagnosis was usually tolerably clear, but a reserved opinion ought to be given as to the danger of operation. One of his cases had done well; in another the patient died in forty-eight hours. He was willing to try the oblique incision, as he did not fear exposing the kidney.

Mr. Bryant, in reply, thanked the Society and the President in an especial manner. He said the Surgeon was too often called too late to do any good. He thanked Dr. Habershon for his correction, and Mr. Wood for his criticism. There was no appearance of tubercle near the diseased spot, and if no greater objection could be brought against his incision than the fact of the kidney being thus exposed, he was rather pleased to see it than otherwise. He considered it important to separate cases of cancerous disease from those of simple ulceration, as colotomy was most likely to succeed in the latter class of cases.

The President thought men should not be deterred by tubercle, the relief was so great.

Public School Education.—The address delivered on Friday night at the Royal Institution dealt skilfully with the evils of our present methods. The Rev. W. Farrar boldly exposed the wretchedly unphilosophic system by which boys' heads are now-a-days crammed like "badly packed portmanteaus," and pointed out the basis of a proper scheme. We trust Mr. Farrar will publish his lecture in some of our monthly periodicals.

OBITUARY.

DR. JOHN DAVY, F.R.S.

By the death of Dr. John Davy the English School of Physic has lost one of her ablest scholars; and not this only, but a scholar in that narrow borderland which connects Medicine with science and saves her from drifting away into the wide and wanton ocean of speculative competition—the mere adaptation of routine practice to the ignorant clamours, praises, and criticisms of the herd of folly and fashion. The brother of the great Sir Humphry, inheriting with him a love beyond prejudice for simple truth in nature, trusting firmly in nature, learning directly of her, having reserved faith in all observation, and no faith in beliefs cultured without experiment, John Davy was of a verity a reliable man; and if he did not possess the insight of Sir Humphry, the grasp, the prescience, and all else that makes up what is called genius, he held as his own every one of those other qualities without which even genius were, and is, a stumbling-block — industry, perseverance, patience, zeal, devotion. Nature opened her secret life to him because, if not a brilliant suitor like his brother, he was equally honourable to her and equally sincere.

Dr. Davy was born at Penzance in the year 1791. He studied Medicine in Edinburgh, and graduated as Doctor of Medicine in 1814. At this time Sir Humphry was in the height of his reputation, had been knighted nearly two years, was busy about the discovery and construction of the miner's safety lamp, and saw future honours still in the distance. We have heard discussed why at this period John Davy did not come forth in the world of general science under the direction and under the patronage of his brother; and we have heard also reasons assigned why not, which need give no trouble, and which require no refutation. The whole truth is that John Davy, with the keenest admiration of Sir Humphry's greatness, was too conscious of his own inability to reach the level of that greatness, and was far too independent to shine by the borrowed light even of his own flesh and blood. And so he marked out his own path, made Medicine his social basis and standing-ground in the world, and won, unaided, his own reputation. If there had been no Sir Humphry Davy, there would have been in John Davy the same man who has been and has newly gone. Choosing the public service for his career, Davy became a Surgeon soldier, and threaded his way up, in his official capacity, to become Inspector-General of Army Hospitals. He passed considerable time in the West Indies, visited India, and was on the Medical staff in Ceylon from August, 1816, to February, 1820. He does not seem ever to have been attached to any regiment, but served on the staff attached to general Hospitals. He was so attached in Brussels during the campaign of Waterloo. Wherever he went he was at pains to observe such new truths as came before him with rigid care, and to narrate them with a simplicity of style as remarkable for its crystal clearness as for its studied brevity. His essays are the scientific despatches of a Surgeon soldier.

Dr. Davy's contributions to science speedily made him widely known, and the Royal Societies of London and Edinburgh opened to him readily, to their own honour. His range of knowledge was so great, his tastes so wide, that when we speak of him as a physiologist, we incline to forget physiology in the current and contracted sense of the term, and to let it revert to its first and its natural meaning—the philosophy of nature. He began to write in 1811; his first essay was published in *Nicholson's Journal* for that year, and was followed by several others in answer to Murray's attacks on the views of the then Mr. Humphry Davy as to the composition of oxymuriatic (hydrochloric) acid. His contributions to science are, indeed, as various as may be, but with a singular unity, after all, in them all. He has papers chemical, physiological, sanitary, geographical, common historical, natural historical, pathological, and biographical; and when they are measured by each other they are intrinsically equal, and equally good. Of these subjects, *the one*—if he may be said to have had *one*—was animal temperature. His earliest paper on this subject, written in 1814, and sent to the Royal Society, detailed with extreme minuteness the difference in temperature of arterial and venous blood: the facts here

illustrated were that the blood of lambs, sheep, and oxen is from 1 to 1·5° warmer in the carotids and in the left ventricle of the heart than it is in the veins of the neck and in the right cavities of the heart. These observations he confirmed in 1838, and added some further researches showing the temperature of the pleural cavities.

The most elaborate of his inquiries on animal heat were those in which he fixed the mean temperatures of animals of various kinds. We may venture to say that no working physiologist of any country or time has laboured out this question so sedulously, and it would hardly be going too far to assert that he reduced this department of animal physics to fixed principles. Nothing requisite to insure certainty of result was omitted in this work. The temperature of the surrounding medium, the state or condition of the subjects operated on, and the temperature of similar animals in varying states, were all made matters of study, and the inferences drawn were based on a breadth of knowledge which admitted of no doubt and left no desideratum. In the human subject 114 observations were carried out; members of both sexes, at different ages, were submitted to inquiry, and the experiments were conducted not in one part of the world, but from the colder parts of the temperate regions onwards to the tropics. Amongst animals of the inferior classes the mean temperatures determined by him were so numerous that a large table would be required to condense the facts. The jackal, the leopard, the tiger, the Indian elephant, the elk, the shark, the tunny fish, the flying fish, the adder, were amongst these lower and not over-agreeable earth-mates into whose capacious mouths his inquisitive thermometer found its way. In these modern times, when the thermometer is becoming an instrument of as much value to the Physician, as the stethoscope, these pioneering labours of John Davy deserve special notice. He familiarised the minds of his brethren with the process of measuring the animal heat more than any man either before his time or in it.

As, in writing this notice, we allow ourmemory of his many works to call up details, we feel it the more necessary to cease, lest we be tempted to extend a necessarily brief record into what we hope will become, in better and less occupied hands, a perfect critical memoir. But there are three other labours of his we must at least name. We refer to his discovery of the connexion of the electric columns of the torpedo with the organs of respiration; his important note that in tropical temperatures, where there is a mean of 80° Fahr., the venous blood of the mammalia is not distinguishable by colour from the arterial blood; and his refutation, or rather correction, of the statement of Hunter that the coagulation of blood is prevented by lightning shock and some other sudden and violent forms of death.

Turning from the works of the man to the man himself, we may tell of him that in figure he was slight, in movement active, in manner retiring, sedate, courteous, in thought and expression careful and slow. His voice was low and even tremulous; his eyes penetrating and beautiful; his hair dark; his features well set, firm, and expressive. If we may credit a portrait of Sir Humphry, the brothers Davy must in face have been much alike.

An occasional touch of sharpness in John Davy led some to consider him hasty and disputatious. It is true he was ready generally for argument on his own ground, but he was profoundly just even when firmest in opposition. We, who have crossed a lance with him more than once, never lost friendship by the contests, but always left them feeling better for them, and recalling them often afterwards with nothing but pleasure.

The State might have conferred on Dr. Davy more honour than it was willing to offer; and it loses by the negligence more than he lost. He, for his part, recognised by all men of science in his true and self-earned position, lived these many years past in quiet retirement at Ambleside, receiving his half-pay as Inspector-General, and working unobtrusively up to the last at his favourite and life-long pursuits. Sometimes he moved a little from them to matters of local interest; and once we remember publishing for him, in a work of ours long since consigned to the Capulets, and as dead now as any of that unfortunate family, an excellent account of "Coke poisoning in a church" near to his house, which account gave, we heard, some offence, but stopped the recurrence of an accident nearly fatal to many of the congregation. In the same work we also published a short and able essay by him "On the Sanitary Concerns of the British Army."

The last most public appearance of Dr. Davy was at the meeting of the British Association for the Advancement of Science held at Dundee in 1867. He was a constant attendant of the Association, and presided over the Physiological Section several times. At Dundee he acted as Vice-President of the Biological Section, and read two or three papers and took part in the debates, but he was noticed to be less vigorous than in days past; he said to us he was "growing old."

His last illness began on January 15 or 16, with what he considered merely a bad influenza. Eight days before his death he was seized with a severe rigor; for two days he declined to trouble any Medical friend. Mr. Harrison, of Ambleside, however, saw him on Sunday, the 19th, and on Tuesday, the 21st, his son-in-law, Professor Rolleston, of Oxford, was with him, greatly to his comfort. His illness continued to Friday, January 24, when it ended in death. He had no pain, no struggling contest with the arch-enemy. His mind was clear almost to the last. At the time of his death Dr. Davy was in his 78th year. He was buried, amidst profound marks of respect by the inhabitants of Ambleside, in the churchyard of that place. He leaves behind him Mrs. Davy, one son, and one daughter (Mrs. Rolleston).

There are none of her science children of whom England may be more justly proud than of her advanced scholars in Physic. From the days of Harvey this country has been a first nursing mother—not, truly, of the most maternal instinct, but perforce the mother—of the few who have made Medicine what it practically is. The circulation of the blood, the discovery of vaccination, the discovery of anæsthesia (first associated with the honoured name of Davy), the discovery of animal combustion, the unraveling of the nervous system, the foundation of the statistics of life and death, the advancement of sanitary inquiry as a branch of positive knowledge—these, and many other works kindred to them, are the emanations of the English mind. The tomb of John Davy, M.D., F.R.S., now closed, enshrouds a man who, in advances of this kind, was essentially a representative man; and while we claim not for him that he was of the first of his class—while we admit that he failed to differentiate importances, and was content to leave a life history great only in the sense of being made up of many laborious, and perhaps, by comparison, minor efforts—while we pronounce his name with no immense discovery, and while we grant that most men might, with equal industry, do as he did,—we read in his labour a noble lesson; in his character, as an observer, the very soul of truth; and in the direction of his research, the only right royal road to perfect knowledge, in our as yet unwritten art.

NEW INVENTIONS.

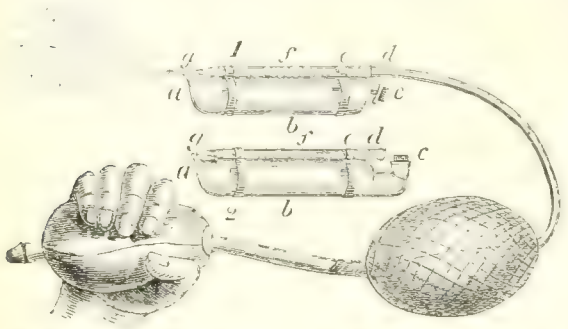
A NEW AND PORTABLE FORM OF SPRAY-PRODUCER.

By David J. Brakenridge, M.D., F.R.C.P., L.R.C.S. Edinburgh.

The advantage of applying medicinal substances in the form of pulverised liquids to such mucous membranes as those of the lungs and air tubes has led to the production of a great variety of spray-producers. In selecting one for myself, I felt that, for Medical purposes, those were practically useless which could not be carried in the pocket conveniently, and without the risk of being broken. All that I have examined, with one exception, are too large and awkwardly shaped. The exception is a very neat one, patented by Mr. Gardner, of this city. It gives a strong spray well suited for such cavities as the ear, vagina, or mouth, but not sufficiently fine for inhalation. To supply what was, therefore, still felt to be a want, I have designed one, two modifications of which are figured overleaf.

It gives a fine vapoury spray, admirably suited for inhalation or local anæsthesia, and with sufficient force for injection into any cavity. With a neatly fitting leather-case it can be carried in the waistcoat pocket without danger of being broken. Its construction, which is very simple, will be easily understood from the illustrations. That represented in the lower figure is the more perfect instrument, as it can be used when the cork is out with less risk of spilling the liquid; but I have made considerable trial of both, and find the other almost equal to it practically, because, when used, the bottle is inclined downwards in front; so that, if properly made, when nearly full, no liquid will escape. I have made a third, with an opening for introducing the liquid on the principle of the excise ink-

bottle, the short inner tube turning upwards and terminating near the upper level of the bottle in a horizontal opening. In this the



Two forms of spray producer with the ordinary bellows. The air tube (*g, f, d*) ends anteriorly in a fine air jet (*g*), posteriorly in a projection (*d*), to which the elastic tube of the bellows is attached. The liquid bottle (*a, b, c*) terminates anteriorly in a fine liquid jet (*a*), and posteriorly in the mouth of the bottle (*c*). The two are adjusted, cemented, and united by two bands (*e*), which may be of wire, zinc, silver, etc., as preferred.

liquid cannot escape, but, of course, in emptying the bottle the last few drops must be blown out through the anterior jet. Mr. Gardner, 46, South-bridge, has made the various forms of my spray-producer for me, and those sold by him may be depended upon for efficiency, as he has been most obliging and painstaking in carrying out my wishes with regard to the details. They will be made about four inches in length, including the case, but the size can be altered according to taste.

RIGOLLOT'S MUSTARD LEAVES.

23, *Henrietta-street, London.*

This preparation has the advantage of being portable, cleanly, convenient, and effective; we believe, too, that it is what it pretends to be—that is, a real preparation of mustard. A specimen happened to reach us just at the moment when a member of our household happened to be complaining of pain in the back. *Fiat experimentum* was the order of the day, and one of the leaves, about five inches by three, was moistened with tepid water and applied at once. It took effect immediately, and in five minutes the patient cried "Hold, enough!" and presented a vivid red patch at the place from which the leaf was removed. Wherever mustard poultices are much in request, the convenient, effective, and, we think we may add, cheap, preparation of M. Rigollot, is sure to become a favourite.

NEW BOOKS, WITH SHORT CRITIQUES.

Neligan's Medicines: their Uses and Mode of Administration. By Rawdon Macnamara, L.R.C.P., F.R.C.S.I., Professor of Materia Medica Royal College of Surgeons of Ireland, etc. Dublin: Fannin and Co. Pp. 234.

*** Mr. Macnamara remarks on the changed title of this book, and specifies of the additions he has made to it. It is well that he has thus distinctly avowed the responsibility of many extraordinary errors or misstatements contained in certain parts of the volume, especially in the appendix of formulæ. We there encounter, in a casual glance over a list evidently intended to secure variety instead of redundancy, Liquor of the Sulphate of Morphia ordered as a purgative; we come across the old term *Mistura Cretæ*, a substance called *Sacc. a* [illegible] *s*, and many other like errors. The book itself has been greatly enlarged, but it has become turgid and long winded, rendered of much less value to the student, it has not been better adapted to the wants of the Practitioner.

First Principles of Modern Chemistry. By U. J. Kay Shuttleworth. London: John Churchill and Sons. Pp. 214.

*** Mr. Shuttleworth is an ardent disciple of Professor Frankland, and employs his notation (no doubt the most advantageous as well as Crum Brown's graphic formulæ, for which he strongly contends. He deals, however, only with the more elementary portions of inorganic chemistry, so that the work is to be regarded as an introduction to the study of the science rather than an extended treatise on it.

Railways in their Medical Aspects. By J. Ogden Fletcher, M.D., F.R.C.S., Medical Officer to the Manchester, Sheffield, and Lincolnshire, and Great Northern Railways. London: Cornish. Pp. 184.

*** We have had papers on most railways, and we have had papers for railways, but Dr. Fletcher's is the only one that has come under our notice which treats of railways as a whole. According to him railway travelling would seem to be rather conducive to health than otherwise. It would be a good thing to get a thoroughly authentic statement on this subject from a perfectly competent authority.

On the Climate of Worthing. By J. Gourlay Baker, M.B. Lond., Senior Medical Officer to the Worthing Infirmary. Second edition. London: John Churchill and Sons. Pp. 95.

*** The new edition differs from the old one chiefly in the additional tables a more prolonged period of observation could supply, and in some comparisons of the climate of Worthing with that of other situations. To the invalid in search of correct and exact information as to Worthing we would highly recommend this book.

An Essay on the Maintenance of Health. By Henry Lowndes, Surgeon to the Northern Hospital, Liverpool. London: John Churchill and Sons. Pp. 70.

*** A sound and practical little book, especially amusing in dealing with, we might almost say demolishing, the teetotal heresy.

Gymnasts and Gymnastics. By John H. Howard, late Professor of Gymnastics, Commercial College, Ripponden, Yorkshire. Second edition. London: Longmans. Pp. 299.

*** This edition is completely revised, many new exercises introduced, objectionable ones expunged, and the whole extensively illustrated by very good engravings.

Guy's Hospital Reports. Edited by Dr. C. Hilton Fagge and Arthur E. Durham. Third Series. Vol. XIII. London: John Churchill and Sons. Pp. 538.

*** These celebrated reports still maintain their ancient reputation, and this we hold to be no mean praise, for it would be difficult to point to any publication at once so long and so worthily known to the Profession. The papers in the present volume are from the pens of Drs. Rees, Fagge, Taylor, Moxon, Stevenson, Braxton Hicks, and Pavy; and of Messrs. Cock, Hilton, Salter, Cooper Forster, Hinton, Bryant, Birkett, Bankart, Durham, and Baden. One we regret to miss, the name of Dr. Wilks.

Handbook of the Sphygmograph. By J. Burdon Sanderson, M.D., F.R.S., Physician to the Hospital for Consumption, Assistant-Physician to Middlesex Hospital, etc. London: Hardwicke. Pp. 83.

*** This our readers will find one of the most useful guides to the use of the sphygmograph yet published, for Dr. Sanderson is not only one of our greatest living physiological experimenters, but one of our most scientific clinical observers. To prove this, nothing is required beyond a reference to a lecture delivered last year at the Royal College of Physicians, and appended to this volume, in which he has brought an entirely new set of facts to bear on some disputed questions as to the action of the heart.

The Surgery of the Rectum, being the Lettsomian Lectures for 1865. By Henry Smith, F.R.C.S., Assistant-Surgeon to King's College Hospital, President of the Medical Society of London. Second edition. London: John Churchill and Sons. Pp. 152.

*** These three lectures on the connexion of fistula in ano with stricture of the rectum; on stricture, cancer, and polypus; on piles and prolapse of the rectum, have been carefully revised, especially the last. The number of illustrative cases is also increased. Mr. Smith, a great advocate for the use of the clamp instead of the ligature, has now employed it in 120 cases with the utmost success.

On Ovarian Dropsy; its Nature, Diagnosis, and Treatment. By J. B. Brown, Surgeon to, and Founder of, the London Surgical Home, etc. Second edition. London: Hardwicke. Pp. 80.

*** This edition, much larger than that formerly published, contains particulars of all the cases operated on by Mr. Brown since he began to perform the operation. Those in which the actual cautery was used are of special interest.

Synopsis of the Pathological Series in the Oxford Museum. Provisionally arranged for the use of students after the plan of the Hunterian Collection. Clarendon Press, Oxford. Pp. 57.

*** One might readily suppose, on reading its title, that this little volume was of a purely local interest, comparatively useless out of its own particular sphere. There could not be a greater mistake. As an introduction to the study of modern pathology, the student will do well to make himself master of its contents, for it is both good in itself, and by its judicious references will enable him to conduct his studies elsewhere to the best advantage.

Researches in Obstetrics. By J. Matthews Duncan, A.M., M.D., L.R.C.S.E., Lecturer on Midwifery in Surgeons' hall Medical School, Physician for, and Clinical Lecturer on, Diseases of Women in the Royal Infirmary, etc., etc. Edinburgh: A. and C. Black. Pp. 467.

*** The value and importance of Dr. M. Duncan's researches are so well known that to praise them would really be a work of supererogation; of that the volume before us is sufficient testimony. Its first part deals with the statics of pregnancy, its second with the pelvis in its bearing with the physiology and pathology of pregnancy and the puerperal state, its fourth with natural and morbid parturition, and its fifth with miscellaneous subjects. The various papers arranged under these heads have been partly published before, partly not, whilst those belonging to the former category have been completely revised, some of them being, in point of fact, new papers. The work is further illustrated by a number of diagrams and some very good cuts.

Obstetric Clinic: a Practical Contribution to the Study of Obstetrics and the Diseases of Women and Children. By George T. Elliot, jun., A.M., M.D., Professor of Obstetrics and the Diseases of Women and Children in the Bellevue Hospital Medical College, Physician to Bellevue Hospital, etc., etc. New York: Appleton and Co. Pp. 458.

*** The large amount of experience which Dr. Elliot must have acquired in his extended practice is here utilised to the utmost. Case and commentary go hand in hand. On one point his observations are of unusual value—that is, on albuminuria as a complication of pregnancy. To that he devotes three chapters. The others are on the ordinary difficulties and operations of obstetric practice. The chapters on the diseases of women treat of their inflammatory complications, and of certain conditions of the bladder. The only one devoted to diseases of children deals with retropharyngeal abscess. A short treatise on kyestein, the work of Drs. Elliot and Van Arsdale, and a reprint, is appended.

Injuries of the Spine. By J. Ashurst, jun., A.M., M.D., Fellow of the College of Physicians of Philadelphia, etc. Philadelphia: Lippincott and Co. Pp. 126.

*** A small but valuable work, containing an analysis of nearly 1,000 cases, as well as to twenty four in which resection was performed. The indications are carefully drawn, but its especial merit lies in the tables referred to.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Thursday, January 30, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Bright, George Charles, M.B. Oxon, 8, Southwick-crescent, Hyde-park
Cavafy, John, M.B. Lond., 26, Pembridge gardens, Bayswater
Cooper, Charles William, M.B. Cantab., 2, Grenville street, Brunswick-square.
Greenhill, Michael Comfort, M.D. Aberdeen, Madeira.
Salmon, Alexander, M.D. Aberdeen, 8, Gray's inn-place.

At this meeting, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Bushell, Stephen Wootton, Bickley.
Groves, Joseph, Carisbrooke, Isle of Wight.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first Professional examinations during the recent sittings of the examiners:—

Alphents, J. Wybrants, Downpatrick.
Dutt, Bessin Behary, Calcutta.
Galloway, Walter, Dalry
Walshe, Denis, Kilkenny.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh:—

Affleck, John, Dumfriesshire.
Alexander, Peter, Dudley.
Campbell, Archibald, Argyllshire
Cory, George, Northampton.
Gass, James Barton, Dumfriesshire.
Horner, Thomas Lyle, Dungiven, Ireland.
Innes, Robert, Aberlour.
Pugh, Joseph, Cork
Ryder, Peter, Liverpool.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery at a meeting of the Board on February 5:—

Douglas, William, Belfast, Diploma of Membership dated January 24, 1868, of the Edinburgh and Belfast Schools
McKay, Hugh Munro, M.D. Victoria College, Toronto, Woodstock, Ontario, January 22, 1868, of St. Thomas's Hospital.
McLarty, Duncan, M.D. Victoria College, Toronto, St. Thomas, Ontario, January 22, 1868, of St. Thomas's Hospital.
Price, Richard Henry, L.S.A., Chichester, January 21, 1868, of King's College.

It is stated that two candidates failed to acquit themselves to the satisfaction of the Board.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen were admitted Fellows of the College at a meeting held on the 3rd instant:—

Cooper, Alfred, London.
Hamilton, Thomas, M.D., London.
Maclaren, Peter Hume, M.D., Lasswade.
Marsden, Alexander E., M.D., London.

The following gentlemen passed their final examinations, and were admitted Licentiates of the College, during the recent sittings of the examiners:—

Campbell, John, Glasgow.
Core, William Scott, County Tyrone.
Roberts, Henry Prescott, Manchester.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 30, 1868:—

Baker, John Penning, 6, York-place, Portman-square.
Berry, Other Windsor, 26, Canonbury-road, N.
Cresswell, Richard, Lewisham, Kent.

The following gentlemen also on the same day passed their First Examination:—

Banks, Richard, Guy's Hospital.
Mason, John Dawson, Guy's Hospital

A NOBLE ADVOCATE.—Lord William Lennox delivered a lecture on Monday evening at the Westbourne Hall, Bayswater, in aid of the funds of the Victoria Hospital (Chelsea) for Sick Children, of which excellent institution the Duke of Richmond is President.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARNES, R., M.D.—Consulting Physician to the Children's Hospital for the East of London.

BELL, A., L.R.C.P.Ed.—Surgeon to the Hospital for Diseases of the Skin, Newcastle-on-Tyne.

BOWLBY, T. E., jun., M.R.C.S.E.—House Surgeon to the London Hospital.

COWELL, G., M.R.C.S.E.—Ophthalmic Surgeon to the Children's Hospital for the East of London.

DAVIDSON, Dr. JOHN H., Medical Officer at the Birmingham Borough Lunatic Asylum—Chief Superintendent of the Cheshire County Asylum.

BECKFORD, N., M.R.C.S.E.—Resident Medical Superintendent of the Children's Hospital for the East of London.

HINGSTON, J. TREGELLES, M.R.C.S., M. and L.S.A., House Surgeon General Lunatic Asylum, Northampton—Medical Superintendent of the Isle of Man Lunatic Asylum.

MURRAY, W., M.D.—Consulting Physician to the Hospital for Diseases of the Skin, Newcastle-on-Tyne.

SHILLITOE, B., F.R.C.S.E.—Consulting Surgeon to the Children's Hospital for the East of London.

NAVAL AND MILITARY APPOINTMENTS.

BECHER, E., M.D., Assistant-Surgeon 104th Foot—Staff Surgeon.

BONER, T. G., M.D., Staff Surgeon Ceylon Rifle Regiment—Surgeon.

COWEN, H. L., Surgeon Major, Ceylon Rifle Regiment—Staff Surgeon Major.

CURRIE, S., M.D., C.B.—To the temporary rank of Inspector-General of Hospitals of the Abyssinian Expeditionary Forces.

MALCOLM, J. V. T., Staff Assistant-Surgeon 7th Hussars—Assistant-Surgeon.

MOORHEAD, Staff Surgeon Major—To the honorary rank of Deputy Inspector-General of Hospitals.

O'NEILL, C. J., Staff Assistant-Surgeon 104th Foot—Assistant-Surgeon.

SMITH, W. P., Assistant-Surgeon 35th Foot—Staff Assistant-Surgeon.

TATE, R., M.D., Staff Assistant-Surgeon 2nd Foot—Assistant-Surgeon.

THORNHILL, T. A., M.B., Assistant-Surgeon 7th Hussars—Staff Surgeon.

BIRTHS.

DIVERS.—On January 31, at 81, Lansdowne road, W., the wife of W. E. Divers, M.D., of a daughter.

GARRINGTON.—On January 28, at 24, St. George's-square, Portsea, the wife of Arthur Merrifield Garrington, M.D., of a son.

MARSHALL.—On January 24, at Stephenson terrace, Preston, the wife of A. Marshall, M.D., of a son.

ROOKE.—On February 2, at Montague Lodge, Cheltenham, the wife of T. M. Rooke, M.D., of a daughter.

SALTER.—On January 30, at Malmesbury, Wilts, the wife of Dr. Salter, of a son.

SWEETNAM.—On January 29, at 2, Vernon place, Bloomsbury square, the wife of S. Sweetnam, Assistant Surgeon R.N., prematurely of a son, stillborn.

MARRIAGES.

ARMSTRONG—ARMSTRONG.—On January 29, at St. Paul's, Newcastle-on-Tyne, L. Armstrong, Esq., M.R.C.S.E., of Newcastle-on-Tyne, to Anne Jane, youngest daughter of C. Armstrong, Esq., Hawthorn terrace. No cards.

COLE—DAVEY.—On January 30, at the Parish Church, Walmer, T. Cole, M.B. Lond., of Bath, to Fanny, second daughter of R. G. Davey, Esq., J.P., Surgeon, Hill-house, Walmer.

SHERWIN—ASHLEY.—On January 29, at St. Andrew's, Ham, Surrey, J. Sherwin, M.R.C.S., to Jemima, youngest daughter of the late J. P. Ashley, Esq., London.

DEATHS.

HASTINGS, R., M.D., R.N., Staff Surgeon H.M.S. *Castor*, on January 24, in his 48th year.

HENDERSON, W. P., M.D., Resident Surgeon Royal Infirmary, Edinburgh, on January 31, aged 25.

RHODES, J., M.R.C.S.E., at Pontefract, on January 29, in his 48th year.

SEARLE, C., M.D., F.R.C.S.E., late of the Madras Service, at 26, Osnaburgh-street, Regent's park, on February 4, aged 74.

VACANCIES.

BIRMINGHAM LYING-IN HOSPITAL.—Resident Surgeon.

BRITISH LYING-IN HOSPITAL, ENDELL STREET, LONG ACRE.—Physician.

HULL GENERAL INFIRMARY.—Resident House-Surgeon.

NORTHAMPTON GENERAL LUNATIC ASYLUM.—Assistant Medical Officer.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL.—Physician's Assistant.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bicester Union.—Mr. A. E. Dixey has resigned the Fifth District; area 16,614, population 4819, salary £70 per annum.

Rugby Union.—Mr. Lumsden has resigned the Willoughby District; area 9357, population 1278; salary £20 per annum.

APPOINTMENTS.

Axminster Union.—Henry J. Ellery, M.R.C.S.E., L.S.A., L.R.C.P. Lond., M.D. Heid., to the Kilmington District.

Cockish Union.—Paul Moffatt, M.D. Edin., L.R.C.P. Edin., L.R.C.S. Edin., to the Dalston District.

Hoxne Union.—Edward Crickmay, M.R.C.S.E., L.S.A., to the Laxfield District.

Newton Abbot Union.—Clarence H. Massidh, L.R.C.P. Lond., M.R.C.S.E., to the Chudleigh District.

Plomesgate Union.—Charles J. Grellet, M.R.C.S.E., L.S.A., to the Orford District.

Plympton St. Mary Union.—Richard Ellery, M.R.C.S.E., L.S.A., L.R.C.P. Edin., to the First District and the Workhouse.

Rugby Union.—James H. Torrance, M.D. Glas., C.M. Glas., to the Wolston District; Conrad C. Wimberley, M.D. St. And., M.R.C.S.E., to the Brinklow District.

West Bromwich Union.—John Manley, M.R.C.S.E., L.S.A., to the First West Bromwich District.

MEDICAL CHARITIES.—Edward Weston, Esq., of Leicester, a county magistrate, has just bequeathed £50 each to the Leicester Dispensary, Leicester Infirmary, and Fever Hospital, in addition to legacies to other institutions not strictly Medical.

THE PHARMACEUTICAL SOCIETY sent a deputation to Mr. Gathorne Hardy on Tuesday, the 4th inst. The deputation consisted of Mr. Sandford and Mr. D. Hills, the President and Vice-President), and of Messrs. Carteighe, Evans, Haselden, Morson, Waugh, and others.

MARKET FOR FOREIGN CATTLE.—The proposed separate market for the sale and slaughter of foreign cattle is being vigorously opposed by the butchers. The Butchers' Trade Society held a meeting on Tuesday night, and passed resolutions protesting against the Metropolitan Foreign Cattle Bill, and making arrangements to oppose the Bill in the House.

HEALTH OF ST. THOMAS'S.—It is said on good authority that cholera of a severe type made its appearance at the Island of St. Thomas in the last week of December, and that five deaths occurred. Yellow fever still lingers there.

CURIOUS COINCIDENCE.—Signor Fumagalli, in some sketches he is publishing in the *Annali di Medicina* of the careers of some distinguished Surgeons, mentions, as a very remarkable coincidence, that the two founders of modern Italian Surgery, Palletta and Scarpa, were both of humble birth; both remained unmarried, and, becoming very rich, continued to live a life of parsimony; lastly, having become well-nigh blind in consequence of poring over books, both terminated their famous careers in the same year at the advanced age of 84.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, February 3, the following gentlemen were elected members of the Royal Institution:—Arthur Temple Felix Clay, Esq.; Rev. B. W. Gibsone, M.A.; John Kymer, Esq.; James Murray, Esq.; and Mrs. S. Ralli.

NEW SCIENTIFIC BOOKS.—Messrs. Longmans will shortly publish the following works:—The second part of Dr. Odling's treatise on Descriptive and Theoretical Chemistry; a new edition of Dr. Wood's "Chemical Notes for the Lecture Room;" and the third volume of Professor Owen's elaborate account of the Comparative Anatomy and Physiology of Vertebrate Animals, which volume will complete the work.

DARWIN ON ARTIFICIAL SELECTION.—In the two volumes which Mr. Murray has just issued Mr. Darwin takes up the argument in favour of the law of the origin of species from the artificial selection point of view. The book teems with facts, yet is extremely intelligible to ordinary readers, and it will furnish a tough subject for the anti-Darwinian dissecting table.

THE NEW FRENCH HOSPITAL.—Mr. Ernest Hart, Ophthalmic Surgeon to St. Mary's Hospital, London, has been elected to the like-post at the new French Hospital just opened in Lisle-street, Leicester-square, under the management of the Sisters of Charity (St. Vincent de Paul). The staff includes now Dr. Gueneau de Mussy and Dr. Vintras as Physicians, Dr. De Méric as Surgeon, and Mr. Ernest Hart as Ophthalmic Surgeon. The Hospital is more strictly a Hospital for foreigners, since it is open to all who speak the French language. It includes twenty beds, and a numerous class of outdoor patients. It has obtained liberal support from the Embassies and foreign Governments. The Duc d'Aumale has founded a ward.

DR. C. A. GORDON, C.B., Deputy Inspector-General of Hospitals, having lately returned from Calcutta on the completion of his five years' tour of service in Bengal, has been appointed to, and has taken charge of, the Military Hospitals of the South-Western District, the head quarters of which are at Portsmouth. This has always been one of the most important of the home stations, and has lately become more so in consequence of having been selected as the port of departure and arrival of the new overland transport troop ships. Dr. J. Mure, Deputy Inspector-General of Army Hospitals, having also lately returned on promotion from India, where he had been serving as Surgeon-Major in the 7th Dragoon Guards, has been appointed to the Medical Superintendence of the Dover and Shorncliffe District.

JUST PUNISHMENT.—The Profession, and indeed the public, will be glad to hear that the Council of the Royal College of Surgeons of England has just removed from the calendar of its Members another of the La'Mert family, the notorious Lima Abraham La'Mert, described in that publication as of Bedford-square, but who has lately been figuring in an Indian law court. Great credit is due to the College for taking prompt action in this matter, and showing a determination to purge the Profession of men who have long been a disgrace to it. La'Mert has been a Member of the College nearly ten years, and about the same time a Licentiate of the Royal College of Physicians of Edinburgh, and also a Licentiate of the Society of Apothecaries since 1860. It is stated that the Edinburgh authorities are about to remove his name from the roll of that College, and, as a consequence, the General Medical Council will cancel these qualifications in the Register. Lima Abraham La'Mert is a cousin of the notorious Jordan, who was lately prosecuted by the London College of Surgeons at a considerable expense, and fined £20, the highest penalty, for assuming to be, and describing himself as, a Member of that institution, after having been struck off the list of its Members. We are glad to learn that the College of Surgeons is still pursuing inquiries with regard to other Members, who will shortly find themselves in the company of these pests of society.

PREVALENCE OF VENEREAL DISEASE AMONG PROSTITUTES.—The Magdalen Hospital Asylum does not admit fallen women if they are diseased. This condition is always mentioned to applicants before they are sent to the Committee. Nevertheless, in one year, 284 women applied and were examined. Out of them forty-five were despatched to Hospital or workhouse for Medical treatment before admission. Of the remainder, 131 entered the Asylum in an apparently healthy condition; nevertheless fourteen of them subsequently sickened with syphilis. The records of the Rescue Society show a similar condition. During last year 1050 women sought the benefit of the charity; of these 314 confessed that they either suffered at the time, or had previously suffered, from venereal disease. This proportion, large as it is, is shown to be below the true one, as, after admission of those who have denied their disease, the matrons find many have either the traces of former disease, or the presence of some form of it. Among children the proportion diseased is very great. The Parochial Board of Glasgow placed out in the last three years 241 orphans to reside in families; of these thirty-eight, apparently healthy at the time, subsequently sickened with syphilis, and, in two instances, infected their foster parents with their complaint.

IN his Quarterly Return for December the Registrar-General states that in the nine months ending September 30 the marriage-rate suffered depression, and it was in a marked degree less active than it had been in the three previous years: "the condition of the people supplied less encouragement than it had done to form fresh family ties." The birth-rate, which had been high during three-fourths of the year, was well maintained to its close; and another feature of the returns, which will be observed with gratification, is the unusually low rate of mortality last quarter. As compared with the four previous years 1863-66, the whole of 1867 must be classed as healthy. The rate of birth in the December quarter was 3·368 per cent. per annum, the average for the season being 3·340; the death-rate was 2·137 per cent. against an average of 2·224.

METROPOLITAN DISPENSARY.—Dr. J. Southwood writes to the editor of the *Star*, complaining of the unjust course recently pursued by a coroner's jury in passing a vote of censure upon his conduct without having previously called on him for an explanation. The facts are these:—On the evening of the 15th ult., a woman rushed into the surgery of the Dispensary and asked for Dr. Southwood; but before he reached his surgery the woman had left, stating that he should be sent on to see her husband, who had just burst a blood-vessel. She left no address, and Dr. Southwood was unable to see the patient. The man died, and at an inquest held at St. Bartholomew's Hospital the vote of censure

referred to was passed. If these be really the facts of the case, Dr. Southwood has been unfairly and cruelly dealt with, and we are glad to find that the Committee of the Metropolitan Dispensary agree with us in this opinion. That body has passed the following resolution indemnifying Dr. Southwood:—"That this Committee, after having fully and carefully investigated the circumstances relative to a vote of censure passed on Dr. Southwood at an inquest held at St. Bartholomew's Hospital, on the body of Thomas Halesworth, on the 15th inst., are unanimously of opinion that no blame whatever is justly attributed to that gentleman, and they feel very strongly that such a censure should have been passed without giving Dr. Southwood an opportunity of being present to render any explanation in his power; and they deeply sympathise with him and deplore that such an imputation should have been made and circulated in the public press, to the serious injury of his character and reputation. By order of the Committee: Benjamin Smith, Chairman; Frederick Stiles, Secretary."

A New Reading of Archæopteryx.—In a memoir read before the Royal Society at its last meeting, Professor Huxley pointed out what he conceived a glaring error recently made by one of our most distinguished palæontologists, Professor Owen. The mistake refers to the position of that singular connecting link—if such links exist—between birds and reptiles lately discovered in the lithographic slate of Solenhofen, in Bavaria, and termed Archæopteryx. It seems that, in the description of this singular fossil published some time since in the *Philosophical Transactions*, the dorsal aspect of the vertebral column was mistaken for the ventral, and consequently the limbs and pelvic and scapular girdles were placed on the wrong side of the body. The drawings given by Professor Huxley, which were admitted to be correct by the *savants* present, showed the blunder clearly enough. If further evidence were required, it was found in Professor Huxley's clear and pointed argument, and in the support which he received in the observations subsequently made by Professor Ramsay, Mr. Evans, Dr. T. S. Cobbold, and others. The popular notion that a single joint enables the comparative anatomist to reconstruct the whole organism thus receives a somewhat violent shock.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

An Old Subscriber, Reading.—Certainly, if registered.

Professor Longmore is thanked.

Henley-in-Arden.—We understand that M. Brown-Séquard's address is Cambridge, Massachusetts, U.S. Consult a little work by the Rev. R. Potts, of Cambridge.

A Surgeon.—Bichloride of methylene was at first brought out at 4s. an ounce, but may now be obtained at 2s. an ounce. Robbins and Co., of 372, Oxford-street, are the manufacturers.

One of the Unfortunates.—If you will read the regulations of the College of Surgeons, you will find the subjects for the preliminary examination for the present year.

L.R.C.P. Lond., Liverpool.—Sir Henry Halford, Bart., M.D. Oxon., was elected President of the Royal College of Physicians in 1820. Dr. Paris, M.D. Cantab., succeeded him in 1844. Dr. Mayo, M.D. Oxon., followed in 1857, and was succeeded by Sir Thomas Watson, Bart., M.D. Cantab., in 1862. The gentleman who now fills the chair is Dr. Alderson, M.D. Oxon., elected last year.

Mr. Jackson, Llandudno.—Philip Collot died in 1656. He was an expert lithotomist in France, and is said to have performed the operation by the *apparatus major* with great success. He is said to have been the first who cut adults and old people.

Absolon Charles Statham.

Additional subscriptions:—

Ed. Sercombe, Esq.	£2	2	0
Dr. Markham	1	1	0
J. Lord, Esq.	1	1	0
Archd. Mein, Esq., Edinburgh	3	3	0
J. Corbett, Esq., Dublin	2	2	0
J. H. Parson, Esq., Halifax	1	1	0
W. Hay, Esq.	1	1	0
J. W. Kekwich, Esq., Carlisle	1	1	0
F. W. Morgan, Esq., Leamington	0	10	6
J. W. Lomax, Esq., Newmarket	1	1	0
W. J. Taylor, Esq.	1	1	0
T. Underwood, Esq.	2	2	0
W. J. Bryan, Esq., Liverpool	1	1	0
C. H. Bromley, Esq., Southampton	1	1	0
E. Bromley, Esq., Southampton	1	1	0
R. H. Moore, Esq., Dublin	2	2	0
W. Izod Doherty, Esq., Dublin	1	1	0

The subscription list will be closed on February 20. Gentlemen who have promised or intend to assist are therefore requested to send their contributions on or before that date to E. Saunders, Esq., Hon. Treasurer, 13a, George-street, Hanover-square, London, W., or Dr. Cholmeley, Hon. Secretary, 40, Russell-square, London, W.C.

The British Lying-in Hospital and the Ladies' Medical College.

*** We have received the following letter from Dr. Edmunds in answer to one which we published from Dr. Eastlake last week. As Dr. Edmunds differs from Dr. Eastlake on several points of fact, we have thought it our duty to submit his letter to Dr. Eastlake, who has forwarded to us an answer, which we also publish.

To the Editor of the Medical Times and Gazette.

Sir,—Probably it will be thought by the Profession that I ought to answer some of the statements for which Dr. Eastlake has obtained publicity in the last number of the *Medical Times and Gazette*, and, in obedience to your call, I am very willing to do so.

In the case of the out-patient (Mrs. Harnett), the Hospital Board of Management, after infinite trouble and consideration, may be said to have come to the following conclusions:—

1. That Miss Firth's written message to Dr. Eastlake at 4 a.m. was a perfectly accurate description of the case, and that her judgment was borne out by all that subsequently transpired, and should have been acted upon without such considerable delay as Dr. Eastlake allowed to occur.

2. That Dr. Eastlake promised to return to the patient at 10 a.m., but neglected to do so; and that only after waiting six hours beyond that time, when the poor woman had drifted into the most urgent distress, did Miss Firth induce her friend to attempt to help the impacted head through the brim. That one blade of the forceps was applied during, at the most, a very few pains, and that very trifling use was made of the instrument, and that no sort of injury accrued therefrom to mother or child. And the friends distinctly stated that there was not the slightest mark or scratch upon the head anywhere, "excepting the hole at the *back* of the head" where Dr. Eastlake had perforated.

3. That the patient made no complaint until several weeks afterwards, and then only in consequence of having been hunted up, and actually threatened, by Dr. Eastlake, and after "charitable visitations" on the part of Mrs. Eastlake (these attentions, the matron asserted, were quite unprecedented)—in fact, that the complaint had been brought about, not out of anxiety for the discipline of the Hospital, but to gratify an ungenerous personal animus.

4. That Miss Firth had complied completely with the letter of the Hospital rules in her reference to Dr. Eastlake at 4 a.m., and that there was no *law* of the Hospital forbidding the late matron (or even a common midwife) from applying forceps under such circumstances. I may add that the matron is an officer elected by *general meeting*; that Miss Firth had for many years been most energetic and successful in her management of the Hospital and the delivery of the patients; and that for years most of the teaching of the pupil midwives had been left to her by the Medical officers. It was admitted by Dr. Eastlake that he had taught Miss Firth and her friend to use instruments, and stood by while they had applied them to patients of the Hospital. Moreover, on recently resigning her office in order to go into private practice, she had received high testimonials from the Ladies' Committee and the Board of Management, and she had allowed her name to be placed upon the ordinary midwives' list, in order that she might continue to help the Hospital, and, as was well known, not because the payment of four shillings a case was any equivalent for such attendances as she might render to the patients in her neighbourhood. Under all these circumstances, the Board of Management found the questions involved to be of great difficulty and complexity; but, as *technically* Miss Firth had reverted to the position of one of the midwives, it would have been impossible to leave open the door to such evils as would arise from allowing instruments to be applied to the patients by the common midwives, or other unqualified persons, the Board did not flinch from their duty, and censured the use of the instrument. I need scarcely add that, if it had been shown that the use of the instrument was *intentionally* concealed from Dr. Eastlake, the Board would have regarded such concealment as a serious aggravation of the offence.

Unfortunately, however, Dr. Eastlake, in his palpable anxiety to press this complaint, had, on more than one occasion, *openly threatened* the Board that, unless they ignominiously expelled Miss Firth from the Hospital, he would appeal to the papers; and finally, on the 23rd ult., when the matter was coming on for decision, he handed in a strongly worded paper, and, with menacing voice and attitude, stated (among other things) that if Miss Firth were not expelled he would refuse to attend any bad cases to which it might be her duty to call him. Our chairman said that no Board could work the Hospital with such an officer, and he it was who suggested and wrote out the minute about Dr. Eastlake. That minute was carried unanimously; and, as the motion had arisen at that moment quite unexpectedly, the Consulting Surgeon and myself, being present, were under the disagreeable necessity of concurring in its justice and propriety. But there were other complaints on foot, one of which was that Dr. Eastlake, as junior Physician had performed Cæsarian section upon a patient without consulting his senior and well-known colleagues, Drs. Grailly Hewitt and Murray, or even the Consulting Surgeon. The patient died, and there was naturally considerable dissatisfaction upon the subject among the governors, and at the next general meeting very definite action would have been taken upon that matter.

Dr. Eastlake impugns the representative character of the Board, and intimates that the displeasure of the Board is only the expression of the determination of a clique to force an alliance upon the Hospital with an institution to which he takes well-grounded objections. He also states that "the votes of new governors from amongst the supporters of the Female Medical Society enabled them to remove, amongst others, the acting Medical officers of the Board, and place there in their stead a certain number of their own body." Now, all these statements are virtually and literally untrue, and, unfortunately, I am obliged to add that Dr. Eastlake knows them to be so.

As to the constitution of the present Board: The acting Medical officers were removed by their own colleagues upon the last Board, who declined to propose their names for re-election. *The new governors*, whether supporters of the Female Medical Society or otherwise, *had nothing to do with their omission*; and the re-election of officers came on after a fortnight's "adjournment" of the stormy general meeting, when an extraordinary meeting had been whipped up. The present Board consists of the precise list of fifteen proposed by the last Board,

with two exceptions—that is, by some informality, the last Board, in filling up the vacancies left by the omission of the Medical officers, inserted the names of two gentlemen whose names, one and all, were proposed, on inquiry, not even to be governors, they none of them were not eligible, and two others had to be substituted. One of the two persons was myself (at that time in Dublin), and another the proprietor of an influential newspaper, who has never been connected with the Female Medical Society, either as subscriber or otherwise." In the largest meeting of the governors held within living memory the two new names were elected with universal unanimity, and so, indeed, were the whole Board. I may add, that the two gentlemen whose names fell through as ineligible for the vacancies in the Board of Management are not to this day upon the list of subscribers.

Dr. Eastlake mentions my letter, and insinuates that his refusal to support the alliance was the real cause of the resolution. Nothing could be more entirely false. I never asked Dr. Eastlake to support the proposed alliance, nor for his vote or interest in any way, nor whether he was "favourable" to it; and I must confess that there was no anxiety to press him into *any* office in connexion with the Ladies' Medical College, although, as is well known, he is one of the Medical officers to Miss Garrett's Dispensary, and, I may add, previously had been a candidate for the Obstetric Lectureship at the Ladies' Medical College when the election fell upon Dr. Murphy. There was, therefore, no ground for anticipating that, if the governors had decided upon the "proposed alliance," Dr. Eastlake would have found any difficulty in closing his Physiciancy at the Hospital to fall in with the altogether new standard of clinical teaching that would be necessary. But if Dr. Eastlake had refused to conform, *so far as was necessary for the alliance*, he would have raised the issue whether the Hospital would relinquish the co-operation of the new order of lady students or forego Dr. Eastlake's services as Physician. I have no idea that that issue would have been raised, and even if it had been decided as to stultify the alliance, the result would have been that those governors who were in favour of the Ladies' Medical College would have left the British, and founded a new Hospital. The "proposed alliance" was specially referred by the last *general meeting* to the Weekly Board for consideration and report, and the Board at once appointed a sub-committee to work out the matter and get a report into shape. That sub-committee consisted of five members, including, 1st, the chairman, Mr. E. J. Layton, who last year sent £500 to the Hospital, who is one of the first solicitors in the City of London, and a most thorough man of business; 2nd, the Rector of St. Giles's; 3rd, Mr. Corben, the well-known coach builder, and an old governor of the Hospital; 4th, Mr. Wm. Saunders, the proprietor of the *Medical News*, and 5th, myself, I *[illegible]* Dr. Eastlake. The chairman asked me to act as honorary secretary to the sub-committee, and in that capacity I felt it my duty to give every one of the Medical officers a full opportunity to point out any objections they might see to the proposed alliance before I allowed this question to come on. *That* was the origin of the letter of which Dr. Eastlake received one copy, as follows:—

"January 11, 1868.

"Dear Sir,—A committee appointed by the Weekly Board of the British Lying-in Hospital has been charged to consider and report upon 'the proposed alliance between the Ladies' Medical College and the Hospital.'

"For the information of that committee, and as hon. secretary thereto, I beg to request that as one of the Hospital Physicians you would favour us with your views upon that question, and with any advice or suggestions that may arise out of your Professional experience.

"Especially I would submit the following points:—

"1. The advantages and disadvantages which, in your judgment, would be likely to accrue to the Hospital in the working of a suitable and well-considered scheme for such alliance.

"2. The other Medical Schools, and the Hospitals with which they are respectively associated, having been found to work together so advantageously, would a similar arrangement serve as a basis for the proposed alliance? or, if it could be improved upon, what improvements would you suggest?

"3. As to your own personal willingness or otherwise to co-operate in the working of such [illegible]

"I send herewith reports and papers of the Ladies' Medical College, and shall be happy to furnish any other information you may require.

"I am, dear Sir, yours faithfully,

"Dr. Eastlake" "James Edmunds."

I can only describe Dr. Eastlake's reply as an abusive diatribe of wild allegations; and as he paraded its finest phrases in your last number, I need not encumber your pages with a copy.

The following is a copy of my rejoinder, and to that I have received no reply (*a*):—

"January 20, 1868.

"Dear Sir,—Your reply is safely to hand, and shall be laid before our sub-committee. I regret that your Professional experience does not enable you to favour us with anything relevant to the points on which I asked for information. I am also unable to reconcile the strong opinions you now appear to hold with the facts that you are the Medical colleague of a lady who would probably use instruments if she had had sufficient obstetric experience, and that you were a candidate for the Lectureship at the Ladies' Medical College, to which Dr. Murphy was elected.

"Of course, I note the prominence with which you refer to the recent alleged 'unwarrantable conduct' on the part of two students of this College, and conclude that your previous anxiety to co-operate with that institution has been accidentally blighted. As Honorary Secretary to the Female Medical Society, I beg to state that its Committee and Lecturers would unanimously discountenance the use of instruments by any unqualified person, and therefore we are all at one on that point. But the Female Medical Society is not responsible for the 'misconduct' of individual students of its College any more than the College of Surgeons was responsible for that gentleman, its member, who pulled out and cut off six feet of intestine from a patient whom he thought he was delivering of an adherent placenta. Nor can I see how the 'misconduct' of any unqualified person can go to show that illiterate, uninstructed persons are more efficient as midwives than educated and properly trained women.

"'The tone of feeling towards the Medical staff' is more likely to be the result of the previous reports and resolutions of the Ladies' Committee than of the action of members of this Society. But I know many governors are in favour of the proposed alliance, and that they would resent any attempt to prevent its being fully and fairly discussed. I shall be glad to lay any further communication before the sub-committee, and remain, dear Sir,

"Yours faithfully,

"Dr. Eastlake" "James Edmunds.

"P.S.—If there be any further information wanted about the College, I shall be happy to call upon you, or to receive you at 4, Fitzroy-square, and show you all the arrangements."

This subject, Sir, is of course of large interest both within and without the Profession, but I deeply regret that Dr. Eastlake should have put himself into his present position in regard to this important proposition.

It seems as if he were anxious to become the leader of such Medical "cads" as (*vide* Men Tailors *v.* Women Tailors) would like to oppose, not midwives, but properly educated ones. I do not envy him such a leadership, and am content to range myself with those in the Profession who are not afraid of the competition of women, even when fully and properly educated in obstetrics and the accessory branches of Medical science. If there be any well-grounded objections to the operations of the Ladies' Medical College or to this proposed alliance, I shall be glad to learn what they are, and our Committee will gladly avail themselves of all practicable suggestions. I am, &c.

4, Fitzroy-square, W., February 3. James Edmunds, M.D.

(*a*) Since writing this letter I received a reply dated February 1, but delivered late in the evening of February 3, and evidently posted the same afternoon. It amounts merely to a second edition of the personal sentiments expressed in the former letter, but "entirely re-written, and greatly enlarged." I need not trouble you with a copy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I trust you will permit me to reply as briefly as possible to Dr. Edmunds's letter, which is to appear in your journal this week, inasmuch as it may affect the opinion of the governors at the special meeting to be held on Monday next.

1. With regard to his first conclusion I have simply to observe that it is opposed to obstetric principles to interfere with the progress of labour when a patient is in the condition described in my first letter. Certainly we are not justified in sacrificing the life of a child under such circumstances as that which existed at the time I first saw the patient. In my opinion it was the meddlesome and most unwarrantable interference of the midwives that at last necessitated the performance of craniotomy.

2. I made no promise to return at any fixed hour, but merely said that I *might* be sent for to a patient at Belsize-park, in which case I would call to inquire how the labour progressed. On the other hand, as I have already stated, I gave distinct instructions to be sent for if the patient became at all exhausted.

3. The third conclusion of Dr. Edmunds is entirely devoid of foundation. On the first intimation that instruments had been applied I visited the patient, accompanied by Mr. Leaf, Surgeon of the Marylebone Dispensary. He can testify that Mrs. Harnett volunteered her complaint against the midwives without any question from me.

4. His next statement, that there is no *law* of the Hospital to prevent matrons or midwives performing obstetric operations, is unworthy of discussion. It is not a question of particular but of general law. A midwife might as well be permitted to perform craniotomy as to tie the common carotid. I deny that I ever authorised Miss Firth or any other midwife to use instruments: on the contrary, I have repeatedly stated, that if it ever came to my knowledge that they had done so with patients under my charge, that I should immediately bring it before the Board. In stating that I ever stood by and saw the midwives apply instruments to patients of the Hospital, Dr. Edmunds has again been guilty of a statement entirely contrary to the truth.

The written minute I handed to the Board respecting the dismissal of the midwife will prove that I did not refuse, as stated by Dr. Edmunds, to attend any bad cases to which Miss Firth might call me.

The allusion to the case of Cæsarian section is wholly irrelevant. I mentioned to the Board the circumstances of the case, which were peculiar, immediately after it occurred. No complaint whatever was made at the time, or has since been officially communicated to me. I may remark, however, that this case occurred *before* that of Mrs. Harnett; and it is a little strange that I should hear of it now for the first time in the shape of a complaint from Dr. Edmunds, who has scarcely belonged to the Hospital as many weeks as I have served it, as Medical officer, for years. I am quite prepared for an inquiry or investigation into that case, of which, indeed, the particulars have already been published in the *British Medical Journal* of the following week.

As to the meeting at which Dr. Murray and myself were removed from the Board, I have no hesitation in repeating the statement that it was packed by a number of new governors, of whom a considerable proportion were interested in the Female Medical Society, who had become quite recently governors by a subscription of two guineas each, and for many of whom Dr. Edmunds himself handed in a collected cheque.

The two gentlemen whose names as members of the Board were rejected, became governors at about the same date as Dr. Edmunds himself. Dr. Edmunds denies having asked whether I was favourable to the proposed alliance. His letter, however, as your readers will observe, inquires "as to my proposed willingness to co-operate, etc." The fact of my having accepted the position of consulting accoucheur to Miss Garrett's Dispensary shows, better than words can do, that I am not illiberally opposed to the practice of Obstetric Medicine by women duly and completely educated. I append my reply to Dr. Edmunds's second letter to me, of which he unjustifiably objects to state the purport.

I hope that this plain statement sufficiently exposes the nature of the treatment to which I have been subjected, and the pleading by which Dr. Edmunds justifies it. I am content to leave the whole matter to the judgment of the Profession, for which I have ever had implicit confidence, whether for or against me.

I am, &c.

Henry E. Eastlake,
Fellow of the College of Physicians, Dublin, etc.

Welbeck-street, Cavendish-square, February 5.

"Sir,—I am sorry that you permit yourself to express an opinion that my reply to your letter does not contain anything relevant to the subject-matter of your first communication, an opinion which seems to be equally incorrect and discourteously expressed.

"In your second letter you remind me that I am the Medical colleague of a lady who is in active Medical and obstetric practice. That fact is in itself a proof that I am far from entertaining any desire to obstruct the progress of Medical employment for women, and that my only desire is that they shall be thoroughly educated and legally tested in all the necessary branches of Medical knowledge before assuming [illegible] practice in the treatment of the diseases of women and children, or before undertaking

the serious responsibilities of the higher and operative branches of midwifery. Miss Garrett has passed through a complete course of Medical instruction and is duly qualified. My objection to the Female Medical College, and to any alliance with it on behalf of the Hospital, is that the course of education is absurdly incomplete, and the title of "Medical College," and the avowed object of "instructing in the treatment of diseases of women and children," not justified by the scanty and imperfect teaching afforded, and the subsequent absence of legal tests by examination. I hope that this may be thought relevant to your proposition for an alliance of our Hospital with this establishment, and that you will understand clearly why I think that to consent to such an alliance would be to foster a dangerous delusion, and to take a course subversive of the interests of the charity and the public.

"You remind me that the Secretary of your Society once applied to me to ask what were my terms for giving a course of lectures to a class of midwifery pupils. I am constantly in the habit of instructing and lecturing to midwives; and I remember that I named a sum in reply. I had no knowledge of what was the character of your institution, which I took to be simply a school for midwives, and I never had occasion to inquire any further in the matter, until I find it recently appearing as a *pseudo*-Medical College, assuming, upon a ridiculously insufficient curriculum, to have 'female practitioners in midwifery and *diseases of women and children*.'

"I am, &c. "HENRY E. EASTLAKE."

COMMUNICATIONS have been received from—

Dr. LIVINGSTON; AN EX STAFF OFFICER; J. B. H; Dr HITCHMAN; Dr. F B NUNNELEY; Dr DUDFIELD, Mr. J. BIRCHENALL; AN OLD SUBSCRIBER; Dr GARRINGTON, Mr. F JORDAN; Mr J ROBERTSON; Dr A. P. STEWART; A PARISH SURGEON; Mr CONSTABLE; Dr FOTHERLY; Dr. S. GIBBON; Mrs. FIRTH; Dr. LONGMORE; Dr. JAMES EDMUNDS; Dr. G. A. JEFFERY, Mr. F. MOORE, Mr W. W. REEVES; Dr. BERKELEY HILL; Mr. HENRY SMITH; Dr B. W. RICHARDSON; Mr. HAVILAND; Mr. CHATTO; Dr. BARNES; Mr. J. HUTCHINSON.

BOOKS RECEIVED—

Ericce on Venereal Diseases—Pharmaceutical Journal, No. 104—Edinburgh Medical Journal, No. 152—Glasgow Medical Journal, No. 2—Wood's Bible Animals, Part 2—British Journal of Dental Science, January—Medical Mirror, No. 50—Edinburgh Medical Graduate List—Report of the Surgeon-General United States Army.

NEWSPAPERS RECEIVED—

Harrogate Herald—Public Health—Eastbourne Gazette—Medical Press and Circular—Eastbourne Chronicle—Eastbourne Standard.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 1, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Feb. 1.	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Feb. 1.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40 1	2364	1441	1394	55 0	29 8	42 7	0 51	52
Bristol (City)	167487	35·7	118	75	‡90	53 3	32·6	44·0	0·46	46
Birmingham (Boro')	352296	45·0	223	171	164	55·0	34 6	43 9	0·44	44
Liverpool (Borough)	506676	98·0	409	290	‡·2	53·1	37·5	44·8	0·46	46
Manchester (City)	366835	81·8	271	208	‡202	55 0	31 5	43 1	0 91	92
Salford (Borough)	117162	22 7	82	59	74	53·3	32 6	43·6	1 05	106
Sheffield (Borough)	232462	10 2	167	122	111	53·0	33·5	43·1	0 86	87
Bradford (Borough)	108919	16 4	112	55	50	..	..	..	..	..
Leeds (Borough)	236746	11·0	171	120	110	55 0	31·5	44·2	1·73	175
Hull (Borough)	108269	30·4	89	56	59	53·0	27·0	41·3	0·51	52
Nwcstl-on-Tyne, do.	127701	23 9	76	68	61	52 0	33·0	42·3	0·80	81
Edinburgh (City)	177039	40 0	112	85	92	51·7	33·0	42 4	1·00	101
Glasgow (City)	449868	88 9	356	262	276	53 1	30·6	42·5	5 93	599
Dublin (City and some suburbs)	319985	32 8	162	§157	206	55·9	33·1	45·6	0 52	53
Total of 14 large Towns	6391080	34 7	4712	3163	3182	55·9	27·0	43·3	1·17	118
					Week ending Jan. 25.	Week ending Jan. 25.				
Vienna (City)	(1863) 560000	..	..	..	378	..	..	§34·5	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·869 in. The barometrical reading decreased from 30·22 in. on Wednesday, January 29, to 29·10 in. on Saturday, February 1. The general direction of the wind was S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 37 4°.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 1, 1868.

BIRTHS.

Births of Boys, 1207; Girls, 1157; Total, 2364.
Average of 10 corresponding weeks, 1858-67, 2280·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	745	659	1404
Average of the ten years 1858-67	748·2	732·7	1480·9
Average corrected to increased population..	..	..	1629
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina	Diphtheria	Whooping-cough.	Typhus	Diarrhœa	Cholera.
West ..	463,388	3	10	4	5	15	6	..	..
North ..	618,210	6	3	7	2	6	13	4	..
Central	378,058	2	2	4	2	7	5	4	..
East ..	571,158	7	6	3	1	13	10	3	..
South ..	773,175	6	5	13	1	24	13	4	..
Total ..	2,803,989	24	26	31	11	65	47	15	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·869 in.
Mean temperature	42 7
Highest point of thermometer	55 9
Lowest point of thermometer	29 8
Mean dew-point temperature	38 1
General direction of wind	S W.
Whole amount of rain in the week	0·51

APPOINTMENTS FOR THE WEEK.

February 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's 2 p.m.; Charing cross, 1 p.m.; Royal Free Hospital, 1½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

10. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1 30 p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr Thorowgood, "On Remedial Measures in Advanced Phthisis."
ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

11. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.
ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Prof Busk and John Evans, Esq., "On Human Remains and Works of Art found in the Tumuli and Caves of Portugal." Rev. — Houghton, "On the Hairy Men of Eastern Asia." Dr. Hyde Clark, "On the Varini of Tacitus."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Mr. Curgenven, "On Infantile Remittent Fever, erroneously called Typhoid." Mr. H. Lee. "Case of Double Hernia in a Single Sac."
ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."
12, HINDE-STREET, W.—4½ p.m. "Lectures on Experimental and Practical Medicine," by Benjamin W. Richardson, M.D., F.R.S.

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2 30 p.m.
HUNTERIAN SOCIETY. 7 p.m.: Annual General Meeting. 8 p.m.: Annual Oration, by Dr. J. Braxton Hicks.
ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."
SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

14. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.
CLINICAL SOCIETY, 8½ p.m. Papers on "Intermittent Hæmaturia," "Renal Abscess," and "Fibrous Phthisis."
ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."
ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On Vanadium and its Compounds."

CHOCOLAT-MENIER.

(Manufactured only in France.)

ANNUAL CONSUMPTION EXCEEDS 5,000,000 lb.

The healthiest, best, and most delicious Aliment for Breakfast known since 1825; defies all honest competition, unadulterated, highly nutritious, and pure.

Sold in Half-pound Packets.

Wholesale, MENIER, 23, Henrietta-street, Strand, London.

Retail by all respectable Houses.

PARIS EXHIBITION, 1867.

"MAIZENA."

This delicious food, which gained the ONLY PRIZE MEDAL in 1862, with the high report of Jury "EXCEEDINGLY EXCELLENT FOOD," was again awarded, by the Jurors of the Paris Exhibition, the SOLE SILVER MEDAL of HONOUR, accompanied by the very flattering recommendation, "PERFECTION of PREPARATION." Makes delicious Puddings, Blanc Mange, Custards and scores of other dishes.

TRY IT ONCE! SOLD IN PACKETS EVERYWHERE.

SEA-SICKNESS PREVENTIBLE AND CURABLE

BY DR. CHAPMAN'S SPINAL ICE-BAG (PATENT).

Its application is agreeable; it gives immediate comfort and relief, while arresting the sickness, as well as any cramps or spasms which may be experienced, it restores the impaired circulation of the blood to its normal standard; and thus the patient, who may be cold, pallid, apathetic, and completely prostrate, quickly regains the ruddy glow and the mental and physical energy of health.

Dr. Chapman's book on Sea Sickness, published by Trübner and Co., explains how the malady is cured by the Spinal Ice-Bag, and contains reports of numerous cases having its effect.

The Bags, together with directions how to select one of suitable size in each case, and how to use it, may be had of Messrs. Maw and Son, 11, Aldersgate-street; Messrs. Mackinlay and Co., 8, Castle-street; and J. G. Gould, 148, Oxford-street, London; of Thos. Chapman, 76, Buchanan-street, Glasgow; and, by order, of all Druggists.

THE ORIGINAL DISCOVERER & INVENTOR OF

CHLORODYNE

IS

DR. J. COLLIS BROWNE, M.R.C.S.L.,

Ex Army Medical Staff.

A WORD TO THE PROFESSION.

The word CHLORODYNE was coined by Dr. BROWNE to designate the remedy he discovered after ten years' protracted experiment with remedia not described or used in Hospital Practice at the Bedside of the Patient, when he was able hour after hour, by night and day, to make his observations on the action of his remedy, in every phase of disease possible, and note its effects on the Pulse, Skin, Sensorii, Secretory, and Functional Arrangements of the Subject treated. It is in this way only that new discoveries in Medicine can be attempted or effected by the Physician. How comes it that, without the practice of Medicine, certain houses in the drug trade venture to vend compounds so-called Chlorodyne, without a knowledge of its formula, the same never having been publicly made known by Dr. BROWNE? It is evident, therefore, that those who use Spurious and Pirated Imitations are acting unjustly by encouraging a deception and misleading themselves.

CAUTION.

Vice-Chancellor Sir W. P. WOOD stated that Dr. J. COLLIS BROWNE was undoubtedly the Inventor of CHLORODYNE; that the story of the Defendant, FREEMAN, being the Inventor was deliberately untrue, which he regretted had been sworn to. Eminent Hospital Physicians of London stated that Dr. J. COLLIS BROWNE was the discoverer of Chlorodyne; that they prescribed it largely, and mean no other than Dr. BROWNE'S.—*See Times*, July 13, 1864.

EARL RUSSELL has graciously favoured **J. T. DAVENPORT** with the following:—

Extract from a Despatch from Mr. WEBB, H.B.M.'s Consul at Manilla, dated Sept. 17, 1864.

"The remedy most efficacious in its effects (in Epidemic Cholera) has been found to be Chlorodyne, and with a small quantity given to me by Dr. Burke I have since saved several lives."

The following eminent Firms stated on Affidavit that Dr. J. Collis Browne was the discoverer of Chlorodyne, and that they always supplied the preparation as the Original Chlorodyne, or when Chlorodyne was asked for:—

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Messrs. ALLEN and HANBURY	Messrs. BURGOYNE and BURBRIDGE	Messrs. EVANS and LESCHER
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,, BARRON and HARVEY	,, CORBYN and CO.	,, SAVORY and MOORE

After Dose, relief is felt in a few minutes. Effects permanent. Unequalled in the case of Children. A Chlorodyne can be obtained at all respectable Chemists. Chlorodyne is the best remedy known to Patients and Physicians. The value of the remedy consists the real and Original Compound.

Sold in Bottles at 1s., 1s. 6d., 2s. 9d., 4s. 6d., 11s., and 22s. Discount to the Profession.

Sole Manufacturer—J. T. DAVENPORT, PHARMACEUTIST,

33, Great Russell-street, Bloomsbury-square, London.

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

(*Continued from page* 114.)

On Lesions of the Motor Tract—Hemiplegia.

Having presented to you an outline of the physiology of the nervous system, you will be better prepared to understand what symptoms may be expected to result from lesions of its various parts. As regards the organic system of nerves, I have already informed you that there can be no doubt of its frequent derangement, and its consequent fluctuating influence on the different organs of the body. It may be that disease of a positive kind takes place in these ganglionic centres; but that derangement may occur therein, if it only be from their connexion with the cerebro-spinal system, is a fact of daily observance, and of which I have already given you many examples. Then, as to the sympathetic nerves which surround the blood-vessels, or vaso-motor nerves, as they are called, there can be no doubt that their influence on nutrition is all-important, and their connexion with the brain shown by such a fact, long ago observed, that cancer is apt to grow up in persons given to despondency.

The true spinal system regulating the movements of the body through its nerves necessarily produces, when deranged, the more striking results of paralysis of motion and sensation.

As regards the brain proper, I have alluded to changes in the cortical structure affecting necessarily the mental powers, and thus producing delirium or dementia, according as it is acutely or chronically affected. I have also alluded to the fact of irritation of the surface causing convulsions or epileptiform fits.

The medullary matter, when diseased, produces no characteristic symptoms. Being composed of material which is the conducting medium between the cortical substance of the brain and the spinal system, it might be supposed that a lesion so extensive as to interrupt this communication would be productive of very marked symptoms, and probably this would be the case. Such amount of disease, however, is rarely met with, the changes observed being merely local softenings, and carrying with them no diagnostic signs.

The spinal cord, besides possessing its own inherent powers, consists of strands of fibre for the conduction of sensation and motion upwards to and downwards from the brain. It is composed of two symmetrical halves, which together form one uniform column. These pass upwards to the medulla oblongata, pons Varolii, crura cerebri, to the large central ganglia in the middle of the brain. As I before said, physiologists have asserted that the sensitive tract, when arriving at the medulla oblongata, runs posteriorly or superiorly to the motor tract, and then terminates in the thalamus opticus, the motor ending in the corpus striatum. The lesions produced by disease have not yet tended to corroborate this statement; but it must be remembered that alterations in sensation are with more difficulty tested than those of motion. As regards the motor tract in the cord, this passes upwards, crosses its fellow at the pyramids, and then ascends through the pons and crus cerebri to the corpus striatum.

A disease of the motor tract of course paralyses all portions of the body below it; and a section through one half would paralyse that side below. This is true of any part of the tract, whether it be in the cord, medulla oblongata, pons, crus; until we reach the central ganglia, when we find disease situated therein produces what is usually styled paralysis of half the body, or hemiplegia. This is only true in general terms, for we shall find that the complete half of the body is not paralysed, and that in hemiplegia arising from disease in these central ganglia the limbs are the parts which are especially affected, and other portions of the body are not involved, or in a lesser degree. These facts have opened up a subject of great interest both to writers on physiology and pathology. For since it is seen that in hemiplegia the will can still operate efficiently on all other parts but the limbs, it might be conjectured either that there was some other channel of communication between the nerves which supply these parts and the cerebrum proper; or that, the centres of these nerves lying, not apart, as those which rule over the extremities, but in juxtaposition, those on the side of the lesion can still be stimulated by their neighbours. Be this as it may, we shall find that if special nerves, or any other than those which supply the extremities, are paralysed, we shall be able to conclude that disease exists at their roots or at the very centre whence they spring, and thus we shall have a means whereby we can detect the exact seat of the mischief.

Owing to the intermixture of fibres, we find that a small spot of disease in either of the central ganglia will produce paralysis of the limbs on the other side; a slight lesion, partial paralysis; and a severe lesion, complete paralysis, and not, as might have been expected had there been no blending of fibres in these ganglia or in the plexuses of nerves, a paralysis of particular muscles, according to the exact site of the lesion. When, then, disease of the corpus striatum exists, we have hemiplegia; any disease will produce it, as it is a necessary result of the lesion. You must not, therefore, say, as I heard one of you the other day conclude, that a patient necessarily has apoplexy because he is seized with hemiplegia. The fact of hemiplegia occurring so often in brain disease is owing to these central ganglia being so frequently attacked, and this arises, I apprehend, from their great vascularity; consequently, their vessels are liable to rupture or to become aneurismal, or, being diseased, lead to softening or to be plugged by an embolus. It is for the very reason that lesions of particular portions of the brain are productive of certain definite symptoms that I am pursuing this method of passing in review the consequences of morbid change, in whatever way produced. It is quite impossible to describe the symptoms of apoplexy, abscess, or softening, for the symptoms would be as numerous as the sites of the disease might be different. I want you strictly to bear this in mind, and for the present to remember that paralysis of the limbs means lesion in the motor tract, since no paralysis succeeds to injuries to the brain proper, unless the term paralysis is used in the larger sense of loss of function, whether this be bodily or mental. The simple powerlessness, however, of coma or drunkenness is not what is generally intended by the term paralysis. What I am saying may appear self-evident to some of you, but yet it is sometimes forgotten, for I have been present in a court of law and heard it declared that a man could not have injured his brain, because he had no paralysis, implying an affection of his arm or leg, whilst all the while the Medical man had overlooked the failure of the mental activity, which would have been the true indication of a cerebral lesion. Thus it has happened that a man with a considerably impaired state of cerebrum has received no pity because he could walk or use his arms, whilst another man has been commiserated as a cripple, although still able to conduct his business and provide comforts for his family. It is of no use, therefore, learning in this room the physiology of the nervous system unless you carry that knowledge into practical life. When I come to speak of inflammation of the surface of the brain, I shall tell you of the possibility of arachnitis of one hemisphere producing a condition resembling paralysis. With this exception, you may understand that hemiplegia necessarily implies disease of some portion of the motor tract.

In hemiplegia arising from disease in central ganglion you will find those parts more especially affected which are under voluntary control, and thus the respiratory process not interfered with. The paralysis, in fact, affects only or mainly the arm, leg, and face. The chest is seen to expand as before, and the abdominal muscles move equally on both sides, the diaphragm acts equally, and the patient appears to be able to turn the head. As regards the chest there can be no doubt that it is not usually affected in hemiplegia, but I have seen a hemiplegic patient who, when requested to take a deep breath, was unable to move one side of the chest as well as the other. And many years ago, Dr. Walshe,(a) who was quite cognisant of the opinion generally held as to the non-implication of the chest, took the trouble to accurately determine this question of relative expansion by measurement, and concluded that the side of the chest corresponding with the hemiplegia did not expand equally with the other. It may, however, be taken as pretty certain that those parts of the body which act together as a whole, and are ruled over by nerve centres which are blended into one mass, are not affected in lesions of the central ganglia; for, I take it, it is for the maintenance of this independence of the extremities that the upper part of the cord is bifurcated in the manner we see. The parts, then,

(a) "Clinical Lectures," *Lancet*, March 17, 1849.

which are affected in hemiplegia are the arm, leg, face, and tongue. If a patient be suddenly seized as from effusion of blood in the central ganglion, he is speechless, and the face is seen to be fallen on the paralysed side. When the shock has passed it is observed that the paralysis of the face is but partial, whilst the tongue is thrust out towards the weak side. The mouth drops, but not the eye, the corrugator supercilii being responsive to the will, as before. It was this peculiarity, the fact of the seventh nerve being not completely paralysed, which led the late Dr. Todd to seek elsewhere for an explanation for the falling of the face. He thought, as it was generally taught, that the buccinator muscle was supplied with motive power by the fifth as well as by the seventh nerve, that in a paralysis of this branch of the fifth nerve might be found the source of the symptom. Such an explanation, however, did not at all simplify the question, for it was as easy to believe in a partial paralysis of the seventh nerve as a paralysis of a particular branch of the fifth. Of late, however, the matter has been set at rest by the statement of anatomists, that the long buccal nerve is really a nerve of sensation; that it reaches the muscle only to penetrate it; and is then distributed on the skin. Pathological facts also have shown, when the fifth nerve has been paralysed from a growth pressing on its root, that, although all the muscles of mastication are paralysed, the buccinator has escaped. Quite recently(b) Mr. Turner, the Professor at Edinburgh, has dissected a subject where the long buccal nerve came off from the second division of the fifth, this root, as you know, being altogether sensory. You must therefore understand that it is the facial nerve which is partly paralysed in hemiplegia. At the same time the tongue is involved, shown by its being thrust out towards the weakened side; it was at one time said that the tongue might diverge in either direction, but this certainly is not correct, its direction being towards the paralysed side. If the organ is voluntarily thrust out of the mouth, it can only move in one course, when one side is in action and the other paralysed. Sometimes, I should mention, the eyes are forcibly turned away from the paralysed side. That the third nerve does seem occasionally affected without its actual root being touched by the disease, we judge by the irregularity of the pupils, the pupils being sometimes larger on the same side of the lesion, especially if this be due to effusion of blood. What you have to remember, then, is that in hemiplegia the arm and leg are affected, and the seventh and ninth nerves in part. If it be correct to say that the central ganglia of the brain rule especially the limbs, and that their complete separation on either side is the reason why hemiplegia is so common a form of paralysis, and, on the other hand, that paralysis of one side of the trunk is rare because the centres ruling them are blended together, it might theoretically be supposed that the seventh and ninth nerves were not so intimately united at their sources, and thus one could be influenced independently of the other.

(To be continued.)

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE VAPORISATION AND CONDENSATION OF NARCOTIC VAPOURS.

Gentlemen,—In this lecture I purpose to illustrate the process of introduction of gases and vapours through the pulmonary surface into the current of the blood. We have already made ourselves experimentally conversant with the physical properties of those agents which admit of such introduction. We have seen that whether these be gases or vapours they must have a given composition and a given density, and that when fluids are before us to be transformed into vapours these fluids must have a boiling point of such a mean as to indicate a steady and efficient evaporation within a certain range of temperature —a range limited for our practical purposes by 85° Fahr. on the one side to 175° on the other.

But before I proceed further let me say one word in respect to a common and favourite term; I mean the term "absorption." In regard to the introduction of vapours into the blood, this word, as it is usually understood, is inaccurate. When we say blood absorbs the vapour, we are apt to conceive some kind of affinity, some disposition on the part of the blood to seize the vapour and fix it, making it a portion of itself. This is an error. The vapour really enters the blood by virtue of its own physical properties, not, if it be a true and safe anæsthetic, by entering into combination with blood. What, therefore, is called the capacity of blood for an anæsthetic vapour, is truly the capacity of the vapour to pass into the fluid, or to diffuse; and the amount of vapour or gas which may enter the blood turns so largely on varying external conditions influencing diffusion, that no rule can be arrived at until all external influences are determined as a preliminary step to the inquiry.

We need not to-day trouble ourselves to consider the question of the introduction of simple or compound gases: we had better consider vapours, because these are what we commonly employ for inhalation. Coming into our hands in the condensed form as liquids, they are convenient for use, they are concentrate, easily carried, and easily supplied in the larger volume, when they are called into action as vapours. Let us, therefore, follow the natural processes of change in the physical properties of these bodies from the time they are fluids, through their passage as vapours into the lungs, and to their recondensation to mingle with the blood.

When we take into our hands a fluid which is transformable into vapour, we find that the reason why the fluid retains its character, as a fluid, is that it is exposed to the single or combined influences of reduced temperature and pressure. Hence the simple truth that if we expose one of these fluids to the partial vacuum, as under the exhausted bell of an air-pump, we see it quickly turned into vapour: it boils. Or, if we impart to it more heat, so as to overcome the resistance of pressure, the same physical change occurs: the liquid is vaporised, and, the heat being great, there is commotion; the fluid boils. The boiling tells us that sufficient heat has been imparted to resist the whole atmospheric pressure. With most fluids, however, and this specially is the case with fluids of low boiling point, it is not necessary to introduce any artificial means for removal of pressure or addition of heat simply to vaporise them. Exposed over a sufficient surface, they take up, in common temperatures, sufficient heat to be transformed into vapour by what may be conveniently called spontaneous vaporisation. In this process of transformation into vapour, when it takes place in the air, the particles of the substance vaporised diffuse through the particles of air, and displace them, taking up space which those particles previously occupied. We thus obtain, in a limited space near to the surface of evaporation, a compound atmosphere of vapour and of air, the proportions of each varying according to the rate of evaporation—*i.e.*, according to the force that is at work vaporising, and the freedom that is allowed for expansion. And here again I must venture to correct another common error in the use of terms. This time I refer to the term *saturation*. We hear of air being saturated with a gas or vapour, as if the air possessed the power of taking up or dissolving a certain quantity of a vapour, and of combining with it. This is an error. It is just to say that when air is being replaced by a vapour or gas, its particles, as Dalton thought, may offer resistance mechanically to the particles of the intruding body; but the obstruction is easily overcome in unconfined space, either by adding more heat to the fluid, or by causing a current, so as to remove the vapour and air as they mechanically commingle.

If we confine space and evaporate a volatile fluid into such space by raising temperature, there is a period when no more vaporisation can take place. But this even does not lead to saturation of the air. The air, compressible to a given extent, will make room for a neutral gas or vapour, but it will not necessarily combine with it; its particles will be as little combined as they are when compressed in an air-gun. Thus the vaporisation of these anæsthetic fluids into air is virtually the same as their vaporisation into a vacuum; and the idea, so prevailing, that air is a menstruum for these vapours, may be erased from our minds at once. Our business is simply to know to what extent the vapours are producible from the liquids, under various conditions of pressure and of temperature.

The natural variations of atmospheric pressure—I mean such common variations as exert a marked influence on the barometer—modify vaporisation. This is well shown in regard to the evaporation of water and the heating of water to that degree which we call boiling point. For example, if we take the mean barometrical pressure in London as 29·5, the boiling

(b) *Journal of Anatomy*, part i.

point of water at that pressure would be 211·07°, but with variations in pressure the boiling point would vary thus :—

Barometer.	Boiling point of water.
28	208·43°
28·5	209·31
29	210·19
29·5	211·07
30	212
30·5	212·88
31	213·76

This same rule, differing only in detail, according to the character of the fluid used, holds good with all the volatile fluids we may use as anæsthetics, and in estimating the period required for the vaporisation, the barometrical pressure would have to be taken carefully into consideration, if a given quantity of vapour had to be measured out for every experiment. In practice, this is not necessary, because the atmospherical pressure which influences volatile fluids exerts also an influence on the process of diffusion of the vapour through the pulmonary membrane, and these two influences, to a certain extent, neutralise each other. To proceed to this illustration by direct experiment, I take an animal, and place it in a glass chamber over an air-pump, fitting a good aneroid barometer into the chamber. I next introduce a measured quantity of chloroform into the chamber, and observe, under the ordinary or natural existing pressure, the period in which narcotism is complete, carefully registering the degree of temperature, and the barometrical pressure of the air. The animal is then removed, and is allowed to recover entirely from its sleep. A sufficient time being allowed for the recovery of the animal, it is replaced in the same chamber with the same quantity of chloroform, and, by three or four strokes of the piston of the air-pump, the barometer is brought down an inch or an inch and a half, as may be wished; the tap leading to the chamber is closed, and the progress of the anæsthesia is observed.

From the circumstance of quickened evaporation under the reduced pressure it might be inferred, in the absence of experiment, that anæsthesia would be more rapid under the conditions of the second experiment. But, the temperature during the two experiments being the same, the anæsthesia may actually be retarded, not quickened. A young rabbit was narcotised to the third degree in 2 minutes 24 seconds with a given measure of chloroform, the atmospheric pressure being 29·55, and the temperature 58° Fahr. But placed afterwards in the same chamber with the same measure of chloroform, and with the barometrical pressure reduced one inch and a half, the time required for narcotism to the third degree was 3 minutes and 48 seconds. A pigeon subjected to the same conditions gave precisely the same evidences.

The explanation of this peculiarity of quickened evaporation with slower anæsthesia lies, as I have suggested, in the influence exerted upon the pulmonary surface. The same reduced pressure which hastens the vaporisation of the anæsthetic fluid takes off resistance from the pulmonary membrane, and favours the expiratory current of gases and water vapour from the surface of the blood. It favours also transpiration from the skin and glands generally; and thus, both by resistance to the entrance of the narcotic and by speedier elimination of it, the action is modified.

(*To be continued*)

INFLUENCE OF MARRIAGE ON THE DURATION OF HUMAN LIFE.—Dr. Stark has recently directed attention to the "Influence of Marriage on the Death-rates of Men and Women in Scotland." The following extract, quoted in the *London and Edinburgh Monthly Medical Journal* of 1841 from the *Bulletin Méd. Belge* of 1839, will show how many of the most important of Dr. Stark's conclusions have been anticipated: —"Bellefroid, a Belgian Physician, has recently published a statistical memoir, in which he states that marriage greatly increases the probability of life in both sexes. Women, he says, who marry at 20 have a chance of life eleven years greater than that of those who remain single. The same doctrine holds true, apparently, at all periods of life. The probabilities of life for married men exceed those of bachelors by nineteen years, thus exceeding that of the married female by eight years—a difference probably caused by the mortality resulting from childbirth. Thus it appears that, from the age of 20 to 30, the mortality of husbands to bachelors is as 1 to 12, whilst that of wives to spinsters is only as 1 to 6 for the same period of life."

ORIGINAL COMMUNICATIONS.

ON A

NEW APPARATUS FOR THE ADMINISTRATION OF NARCOTIC VAPOURS;

AND SOME OBSERVATIONS ON THE VARIATIONS OF PULSE AND RESPIRATION DURING THE ANÆSTHESIA FROM CHLOROMETHYL (a)

By F. E. JUNKER, M.D.,
Physician to the Samaritan Free Hospital.

THE apparatus which I described in the *Medical Times and Gazette* of Nov. 30, 1867, differs in principle from the usual methods of producing narcosis. With this apparatus the anæsthetic fluid is not brought to evaporation immediately before the mouth and nostrils of the patient, as in other contrivances for narcotisation, Mr. Clover's bag excepted. With such the vapours are inhaled in an unequally varying proportion, depending upon the quantity of fluid allowed to evaporate, and upon such diffusion in air as the ordinary mouthpieces, the porous surface of Skinner's mask, or the more or less near proximity of a saturated sponge and napkin to the patient's mouth, admit. The vapours also soon become mixed with the expired moisture, and are thus frequently reinspired. Besides, it is often beyond the power of the narcotiser to regulate the exact quantity inhaled by each inspiration. Most of these drawbacks I believe to be obviated in my apparatus. Here continually fresh air is driven through the fluid itself, and, according to the fixed laws of diffusion, only a certain quantity of the anæsthetic can be taken up by the former. Thus impregnated, the air is brought into the mask and inhaled. The expired air passes off through the valve, and it is perfectly within the power of the narcotiser to regulate, by the pressure of the bellows, the fresh supply of the diluted anæsthetic unvitiated by the expired air, with the strength and the rhythm of the inspirations. When the bellows are at rest, the inhaler remains removed from the face, the supply of anæsthetic being stopped. This apparatus secures, besides the principal requirement—safe and speedy narcotisation—an additional advantage, that, the supply being kept in strict proportion with the demand, no loss or waste of the anæsthetic ensues from evaporation, which is often so unpleasant to those around the patient during the operation. Deep narcosis will be speedily produced by a quick working of the bellows after having accustomed the patient by a few gentle inhalations of the anæsthetic. Deep narcosis generally takes place after four to six minutes' administration of, on the average, two drachms of chloromethyl, a like quantity being required to keep up the narcosis subsequently.

Of course, the amount of vapour which passes into my inhaler varies according to the temperature of the air. This is a point which will deserve special consideration, and, as I know that Dr. Richardson has it under his investigation at this time, I shall leave it to himself in his next lecture.

I have given chloromethyl repeatedly during the last two months at surgical operations in the Samaritan Hospital and in private practice. During this time I have devised and improved my present apparatus, having more or less failed with the ordinary methods of administration. The first time I gave chloromethyl was in a case of vaginismus during the necessary operation for its cure, performed by Mr. Spencer Wells on October 21. I used Skinner's mask, but, from the rapid evaporation of the anæsthetic, the patient was only, after some delay, imperfectly narcotised, and I had to resort to chloroform. I used nearly two ounces of chloromethyl within fourteen minutes, and felt myself the effects of the vapours almost too powerfully.

On the same day, during a diagnostic examination, I gave chloromethyl to one of Mr. Spencer Wells's patients, who suffered from cancer of the uterus. I used again Skinner's mask, but prevented too rapid evaporation by interposing a piece of mackintosh. It took twenty minutes before sufficient insensibility to permit examination was produced, and the patient awoke immediately afterwards. I had used fourteen drachms of chloromethyl. In the next case (see Observation 7) I used my apparatus for the first time, but without the chamber. The end of the tube became plugged with ice, and I had to

(a) Read before the St. Andrews Medical Graduates' Association, December 5, 1867.

continue with chloroform. Since I have added the chamber I have always succeeded in producing narcosis within a short time, and keeping it up during a lengthened period with a very small quantity of the anæsthetic. I arranged twelve cases, in which I have given either anæsthetic, in the following table:—

Date.	Operation.	Operator.	Sex of Patient.	Age of Patient.	Apparatus used.	Anæsthetic used.	Time required to produce full Anæsthesia	Quantity required to produce Full Anæsthesia	Duration of Narcotisation.	Recovery after Narcotisation.	Whole Time of Anæsthesia.	Whole Quantity of Anæsthetic used.	Remarks.
Oct. 22	Vaginismus	Mr. Spencer Wells	F.	22	Skinner's mask	Chloromethyl and chloroform	14 m.	2 ounces	..	..	..	..	Anæsthesia incomplete; continued with chloroform. No sickness afterwards.
,, 22	Diagnostic examination; cancer uteri	Do.	F.	40	Skinner's mask, covered with mackintosh	Chloromethyl	20 m.	14 drachms	20 m.	Immediate	20 m	14 drachms	
,, 30	Ovariotomy	Do.	F.	40	My apparatus, without chamber	Chloromethyl and chloroform	8 m.	6 drachms	33 m	8 m; suddenly	41 m	7 drachms chloromethyl; 8 drachms chloroform	Tube plugged with ice; anæsthesia continued with chloroform; sickness after nine hours; 70 ♏ laudanum previously. (Observation VII.)
Nov. 6	Do.	Do.	F.	43	My apparatus, with chamber	Chloromethyl	4 m.	Less than 2 drachms	22 m.	6 m.; suddenly	28 m.	4 drachms	(Observation I.) No sickness afterwards.
,, 7	Removal of supernumerary toes	Do.	M	9 wks	Do.	Chloroform	2 m.	½ drachm	13 m.	9 m.; gradually	22 m	¾ drachm	(Observation II.)
,, 9	Vesico-vaginal fistula	Do.	F.	28	Do.	Chloromethyl	9 m.	2½ drachms	25 m	4 m.; suddenly	29 m.	5½ drachms	
,, 13	Ovariotomy	Do.	F.	30	Do.	Do.	6 m	1½ drachm	19 m	5 m.; suddenly	39 m.	4½ drachms	Remained 13 minutes in deep sleep, during which no anæsthetic was given. (Observation III.) Sick five hours after operation; 50 ♏ laudanum previously.
,, 19	Do.	Do.	F.	23	Do.	Do.	5 m.	1⅔ drachm	14 m	Immediately	22 m.	3½ drachms	
,, 20	Do.	Do.	F.	23	Do.	Do.	4 m.	2 drachms	26 m.	2 m.	28 m.	5½ drachms	(Observation IV.) No sickness.
,, 27	Do.	Do.	F.	30	Do.	Do.	6 m	1⅔ drachm	31 m.	4 m.	35 m.	4 drachms	(Observation V.) No sickness.
,, 28	Extirpation of a large abdominal tumour	Do.	F.	50	Do.	Do.	6 m.	1½ drachm	19 m.	5 m.	56 m.	5 drachms	Chloromethyl given only at intervals. (Observation VI.) Sick 15 hours after operation; 35 ♏ laudanum previously.
Dec.	Ovariotomy	Do.	F.	36	Do.	Do.	5 m.	1½ drachm	12 m	4 m.	30 m.	3 drachms	Remained 18 minutes in deep sleep, during which no methylene was given. No sickness afterwards.

I subjoin several observations which Dr. E. Arendrup, of Copenhagen, kindly registered on the variations of pulse and respiration, and the duration of the narcosis both from chloromethyl and chloroform.

Observation I.—Ovariotomy was performed by Mr. Spencer Wells in the Samaritan Hospital on a patient aged 43. At the moment of commencing narcotisation with chloromethyl her temperature was 97·4, pulse 76, respiration 20. After two minutes the pulse rose to 88, and two minutes later to 108, the respiration remaining 20. At this moment (after four minutes) deep anæsthesia was completed, not quite two drachms of chloromethyl having been consumed, and the operation commenced. During the following eighteen minutes the pulse and respiration ranged as follows:—Pulse 96, respiration 18; pulse 100, respiration 20; pulse 96, respiration 16; pulse 100; pulse 88, respiration 15; pulse 84; pulse 120, quickly rising to 140, respiration 20. (This was the moment when the peritoneal cavity was sponged out, when also momentarily slight vomiting without sickness took place.) From this moment no more methylene was given, only four fluid drachms (equal to three drachms in weight) having been used. Six minutes afterwards the operation was terminated; pulse 96, respiration 24. She recovered suddenly and completely two minutes later, having had chloromethyl administered during twenty-two minutes, having been narcotised completely in four minutes, and under influence of the anæsthesia twenty-eight minutes. Thirty-six minutes after her recovery her temperature was 97·8, pulse 90, respiration 24. No sickness took place after the operation.

Observation II.—From a baby 9 weeks old two supernumerary toes were removed by Mr. Spencer Wells. Chloroform was given with the new apparatus. Complete narcosis took place after two minutes with one third of a drachm of chloroform. With another third of a drachm (altogether two-thirds of a drachm) the baby was kept quiet and insensible during the whole operation, which lasted thirteen minutes.

Observation III.—A patient, aged 30, on whom Mr. Spencer Wells performed ovariotomy, had a temperature of 98·2, pulse 96, and respiration 27, immediately before the commencement of narcotisation with chloromethyl. Inhalation of one minute's duration, during which the bellows were rapidly worked, accelerated the pulse to 120 beats; after two minutes to 136; after three minutes more the pulse was down to 108, when the anæsthesia was completed with an ounce and a half of the fluid, and the operation commenced. After three minutes pulse 96; after other three minutes, pulse 96, respiration 28. After seven minutes the administration of the anæsthesia was discontinued; pulse 80, very strong. The patient remained in a profound sleep, breathing quietly and regularly during thirteen minutes, during which no more chloromethyl was given. Three minutes after the last observation the pulse was 78, and rose after three minutes to 88, respiration 20. There were no further variations in pulse and respiration during the remaining time of the operation. During the last three minutes some more chloromethyl was administered. She awoke five minutes afterwards quite suddenly and perfectly collected. Fifty minutes later the temperature was 98·0, pulse 84, respiration 28.

In this case a drachm and a half of chloromethyl produced deep narcosis after six minutes' inhalation, and three more drachms (four drachms and a half altogether) were sufficient to keep the patient under its full influence during thirty-nine minutes, the whole duration of the anæsthesia. Was sick five hours after inhalation, having had fifty minims of laudanum previously.

Observation IV.—In another case of ovariotomy performed by Mr. Spencer Wells in the Samaritan Hospital on a patient aged 23, chloromethyl was given. The temperature, pulse, and respiration immediately before the beginning of narcotisation were: temperature, 99·6; pulse, 100; respiration, 20. After two minutes the pulse rose to 144; after the following three minutes, pulse 120, respiration 60. One minute after

the pulse sank to 128, narcosis was complete, two drachms of chloromethyl having been used. The operation commenced, and during its progress the following variations of pulse and respiration were marked (two drachms and a half more of chloromethyl being gradually administered). After two minutes, pulse 116, respiration 32; six minutes after, pulse 120; eight minutes after, pulse 128; four minutes after, pulse 104; two minutes after the operation was finished, and narcotisation stopped, pulse 120. After two minutes the patient awoke immediately in full possession of her mental powers, not confused and drowsy as after administration of chloroform. Fifty minutes after, her temperature was 99·2; pulse 104; respiration 32. The whole time of narcotisation was twenty-six minutes, during which five drachms and a half of chloromethyl were consumed. The sudden rise of pulse and respiration at the commencement, and gradual fall of both during the progress of the narcotisation, are noteworthy in this case. No sickness afterwards.

Observation V.—A patient, aged 30, whose health was much impaired from the rapid growth of a large fibro-cystic colloid tumour of the left ovary, had four drachms of chloromethyl administered whilst ovariotomy was performed by Mr. Spencer Wells in the Samaritan Hospital, during thirty-one minutes. Her pulse was very small, and only seventy at the commencement of the narcotisation, and rose after three minutes to 120, respiration 27. Three minutes after, when the anæsthesia was complete, and the operation of ovariotomy commenced, the pulse had sunk again to 108, after seven minutes to 96, very small, but the respiration was accelerated to 60. After seven minutes pulse 96, stronger; after eight minutes pulse still 96, but very good; after three minutes the operation was terminated, pulse 96, respiration 30. The patient awoke perfectly composed four minutes after cessation of narcotisation. In this case complete anæsthesia was accomplished with one drachm and two-thirds in six minutes, and kept on twenty-five minutes longer with as little as two drachms and one-third. Also here the rapid rise of pulse and respiration, and subsequent fall of the first and its remaining stationary as regards quantity, but steady improvement in quality, are remarkable. Was not sick afterwards.

Observation VI.—A delicate lady, aged 50, whose pulse was never below 120 for several weeks before the operation, had a pulse of 142 at the commencement of the inhalation of chloromethyl, likely from nervous excitement. After six minutes she was thoroughly under the influence of the anæsthetic, of which she had 1½ drachms, and her pulse was only 104; respiration 30. The operation commenced. After ten minutes, pulse 80, respiration 30; four minutes later, pulse 100 and small, respiration 44; narcotisation stopped. After five minutes, pulse 108, stronger; after seven minutes, pulse 100, irregular, small, respiration 36. Ten bellowsful of chloromethyl vapour. After three minutes, pulse 112, stronger; after four minutes, pulse 104, respiration 44; after seven minutes, pulse 104, very good, respiration 32. Ten bellowsful of chloromethyl vapour. After five minutes, pulse 108, respiration 36. Operation finished. Recovered well five minutes afterwards. Five minutes after recovery, pulse 120, strong, respiration 28. Slight retching after five minutes. After ten minutes, pulse 126, respiration 26. Had not been sick until fifteen hours after the operation, when she threw up about a small teacupful of mucous fluid, having had thirty-five minims of laudanum during the interval. Complete anæsthesia was produced in this patient with one drachm and a half of chloromethyl in six minutes. She remained fifty-six minutes in an uninterrupted, profound, and quiet sleep, with three drachms and a half more (five drachms altogether) of the anæsthetic, which was given only at long intervals. The operation was a very formidable one, a large cystic tumour, twenty-four pounds in weight, having been removed from the abdominal cavity, and extensive adhesions with nearly all the neighbouring intestines broken down by Mr. Spencer Wells. The nature of the operation may have had in this case a modifying influence on the range and quality of the pulse, which somewhat differed from other observations.

Observation VII.—I add another case, in which anæsthesia was induced first by chloromethyl, and continued by chloroform. This was my first trial with my apparatus, then still incomplete. A greater quantity of both anæsthetics was used, and the end of the tube, where it joined the mask, became closed by a plug of solid ice. Such an accident is now perfectly obviated by the addition of the chamber to the inhaler, into which the end of the tube partially projects, and by the non-conducting material of which the apparatus is constructed. In this case the elastic tube was connected to a brass tube fixed to the inhaler. Also here a rapid rise of pulse and respiration took place at the commencement. It was a case of ovariotomy performed by Mr. Spencer Wells on a patient 40 years of age. Temperature 97·6; pulse 106; respiration 22, immediately before the commencement of the narcotisation. After two minutes, pulse 144, which remained so during the next two minutes; respiration irregular. After three minutes, pulse 132; respiration 52; complete anæsthesia; operation commenced. After another minute, pulse rapidly sank to 78; respiration 40; and after two minutes, pulse 56; respiration 24. This was the moment when the tube became frozen. Two minutes later, pulse 48, when I substituted chloroform. After one minute's inhalation of the latter, pulse 78; the next minute, pulse 68. After two minutes, pulse 64; respiration 27; after two minutes, pulse 70; after five minutes, pulse 90; after three minutes, pulse 84; after three minutes more, pulse 78, respiration 20; after four minutes, pulse 76, when the operation was terminated. Patient awoke after eight minutes gradually, confused as usually after chloroform. Forty-six minutes after the termination of the operation, temperature 98·6, pulse 90, respiration 17. No sickness took place until after nine hours, forty minims laudanum having been administered previously. In this case, seven drachms of chloromethyl were given during eleven minutes, and eight drachms of chloroform during twenty-one minutes. Complete anæsthesia was obtained after eight minutes. The whole time of administration of both anæsthetics was thirty-three minutes; the whole duration of its effects, forty-one minutes.

Chloromethyl appears to have several advantages over chloroform. Its effect takes place rapidly, and without any previous stage of excitement. No violent muscular contractions usher in the anæsthesia—rather a cataleptic state, during which the limbs remain pliable. The patient frequently continues talking during the whole time of anæsthesia, but talks coherently, mostly saying prayers, without leaving out a single word—not rambling and unintelligibly, as after chloroform. The patients awake suddenly and perfectly collected. In some cases, no sickness occurred after this narcotic; in others, many hours after the effects of the anæsthetic had passed off, and laudanum having been given during the interval. In one case, sickness set in almost immediately after the operation, but could not fairly be attributed to the effects of chloromethyl, as the pathological condition of the patient fully accounted for the occurrence of this symptom.

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INDUCTION OF LABOUR—PLACENTA PRÆVIA—SPONTANEOUS VERSION.

By WM. ELLIOTT PORTER, M.R.C.S.

In Dr. Barnes's lecture in the *Medical Times and Gazette* of December 21, he speaks of the spontaneous evolution of the child. The accompanying case, of which the following are the notes, is, I think, corroborative of his statements:—

Mrs. C., age 36. Fifth child; two alive. On December 17, 1867, I induced labour, about the thirty-second week, for the second time in this patient, by means of Barnes's hydrostatic dilators. The first bag was introduced about 12 noon. Pains were fully established by 1 p.m. The third-sized bag was expelled at about 3 p.m. The pains were then regular and strong, every ten minutes or thereabouts. A pouch of amnion presented, the head descending with each pain; it was within easy reach, and the sutures were distinctly felt. I left the patient for an hour and a quarter. On returning, I found the pains more frequent and stronger. A large bag of amnion was now in the vagina; os very high and fairly dilated. The head was now gone, and a hand presenting. An inch or more of placenta was felt over the os; but there was no hæmorrhage externally. On placing my hand on the abdomen, I discovered the head of the child occupying the left hypochondrium. The examination produced a severe pain, and the membranes ruptured. A large quantity of liquor amnii was discharged deeply tinged with blood; there were also many clots. Only the hand of the child was within reach. I placed the patient under the influence of chloroform as quickly as possible, and proceeded to turn.

On commencing to introduce the hand, an immense gush of blood and clots took place. I have often heard the expression "like water from a pump," but never experienced it before.

With difficulty I found a foot, the child being nearly transverse, breech a little dependent, head as before stated. Delivery was completed with no great difficulty; during the process, the child struggled twice. After delivery it gave one incomplete gasp, and the heart beat vigorously for many minutes; but all my efforts, though I continued them for, I should think, nearly an hour, failed to establish respiration. The placenta came away without further hæmorrhage, and the recovery of the patient was unchecked.

In addition to this case being corroborative of Dr. Barnes's remarks, it is worthy of note that there was no external hæmorrhage prior to the evacuation of the liquor amnii.

Lindfield, Sussex.

THE ACTION OF URINE ON SULPHATE OF COPPER.

By F. B. NUNNELEY, M.D. Lond., M.R.C.P.

When sulphate of copper is added in small quantity to healthy urine, and the mixture made strongly alkaline with potash, a flocculent precipitate forms, which increases on boiling, whilst the green liquid becomes of a yellowish-brown colour. This change takes place exactly the same whether the urine contains sugar or is free from it.

It appears to be due, 1st, to the precipitation of one part of the copper; 2nd, to the reduction of the remaining part to the state of suboxide which remains dissolved. It was found that both the precipitate and the liquid always contained copper, however small the quantity of sulphate of copper which had been used.

The precipitate consists of phosphate of copper and phosphate of lime, it is of a dirty white colour, and is freely soluble in hydrochloric acid. The normal oxide of copper is reduced to the state of suboxide by the uric acid, and by certain organic matters of the urine, and its precipitation is prevented by the ammonia set free by the potash, by the creatinine, and by the other non-volatile organic substances present.

Solutions of the normal oxide of copper are blue or green, those of the suboxide are colourless; hence the loss of the blue or green colour marks the reduction of the oxide of copper to suboxide. The solution of either oxide becomes deep blue when mixed with ammonia; in the case of the suboxide oxygen is absorbed from the air.

That this reduction occurs in the urine may be seen as follows:—Some urine mixed with sulphate of copper and liquor potassæ is boiled for a few seconds and filtered. If the quantity of copper solution added was small, the filtrate will have lost its green colour. To the decolorised liquid a little more sulphate of copper is added, sufficient to give it a distinct green colour (from the mixture of the yellow urine and blue copper solution); the small precipitate which forms is removed by filtering. On boiling the filtrate for a short time it becomes of a yellowish brown, the green having entirely disappeared, showing the reduction of the oxide of copper. If some ammonia is now added, and the mixture shaken, it again becomes green from the absorption of oxygen.

The quantity of sulphate of copper which healthy urine will thus reduce, without any precipitation of the oxide, is considerable, and depends on its strength—that is, on the quantity of dissolved organic matter which it contains.

With a view to finding the relative quantities of precipitated and reduced copper in these cases, the following experiment was made:—180 c. c. = 6⅓ oz. of urine, free from sugar and albumen, of sp. gr. 1018, were boiled with 3 grains of sulphate of copper and potash added. The greenish-blue colour was entirely discharged, and a rather abundant precipitate formed. After filtration, the quantity of copper was determined in the precipitate and in the filtrate. In the precipitate 0·79 grain of oxide of copper was present, equal to 2·48 grains of crystallised sulphate of copper; in the filtrate, 0·27 grain of oxide, equal to ·87 grain of the sulphate. The quantity of copper in the precipitate was thus nearly three times as great as that in the filtrate. This result can, however, only be regarded as approximative, as it is difficult to determine the exact point at which the blue colour ceases to be discharged from sulphate of copper in consequence of the deep brown which the liquid assumes, especially when a considerable quantity is heated at once. This colour is due partly to the action of potash on the pigment of the urine, and also to some change produced in the pigment by the dissolved suboxide.

The practical point of interest in performing Trommer's test is, that, although reduction of the copper, as denoted by a change of colour, takes place, the presence of sugar is not indicated unless a yellow or red, finely granular precipitate is also produced. A tenth of a grain per cent. of sugar in a pale urine can be detected by dropping in sulphate of copper until it ceases to be decolorised, whilst the alkaline fluid is kept heated. The reaction with smaller quantities than this, or even with larger quantities in darker urine, is rendered obscure by the deep brown colour the liquid assumes, and not by the precipitation of black oxide of copper. Sulphate of copper may be boiled with equal volumes of urine and liquor potassæ without any precipitation of black oxide, only a scanty one of phosphate and of blue hydrated oxide of copper forming. The production of black oxide is prevented by the presence of the organic substances and the phosphoric acid of the urine. By diluting the black-looking fluid in the test-tube, the precipitate will be seen to be quite pale.

As pointed out by Dr. Roberts, the most delicate and ready test for sugar in urine is the deep blue solution of sulphate of copper in tartrate of potash and liquor potassæ.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

TREPHINING THE HEAD OF THE TIBIA FOR ABSCESS—DEATH—AUTOPSY.

(Under the care of Sir WILLIAM FERGUSSON.)

There have lately been some very interesting Surgical cases at King's College Hospital. With regard to the first noticed—viz., abscess of the cancellated structure of the head of the tibia—years ago legs were amputated for this disease, and for the simple reason that the abscess was not recognised. The great symptom—severe continued pain in one fixed spot, with exacerbations at night, and for which no treatment was of any avail—could not be accounted for. The patient became so much distressed and worn out by the pain simply as to pray for deliverance from it, and the limb was amputated. The pain then ceased, and a perfect cure was said to have been effected. A case of this description occurred in the practice of Sir Benjamin Brodie: he amputated in the lower third of the thigh, and the patient got well. The great Surgeon, however, was anxious to find out, from after-examination of the severed limb, what morbid condition of the member existed. He made a section of the bone, and found an abscess in the head of the tibia. When next, therefore, Sir Benjamin Brodie saw a patient suffering from this peculiar fixed pain, which was not amenable to treatment, he made an incision down to the bone at the painful spot, and, with a trephine making a hole in the head of the tibia, came upon the abscess, and let out about a teaspoonful of pus. This operation completely set the patient on his legs again, and seems a good early example of conservative Surgery.

An almost similar case to the above was admitted into King's College Hospital the other day. The following report is taken from the case-book:—

Thomas S., aged 20, a groom, living at Farnham, was admitted into the Albert Ward, under the care of Sir William Fergusson, with disease of the left tibia. He is rather a strumous-looking man, and states that he fell and injured his left leg fourteen or fifteen years ago. Since this time the upper part of the leg has swelled, and has become contracted on the thigh. The swelling "went and came again;" there was much pain, and abscesses formed on the front and inner side of the calf of the leg, and discharged freely. He says the swelling has gone on increasing, and that he has all along had much pain, particularly on the upper and inner side of the leg.

Present Condition.—The left leg below the knee is now much enlarged for about the upper two-thirds at the inner side and behind, and feels hard and bony. The ridge of the tibia can be traced all its length. The inner side of the head of this bone is much enlarged. There is pain over the whole area of the swelling, particularly about the upper part and the cicatrices of the openings of the abscesses. There is considerable increase of pain during the night. Was ordered quinæ sulph. gr. ij., tinct. ferri mur. ♏xx., aquæ ℥j., t.d.s.

January 11, 1868.—The patient having taken chloroform, Sir William Fergusson made an incision down to the bone, over the swelling, on the inner side of the left leg, five inches long. More room was then gained by making two short transverse incisions at the upper and lower extremities of the first incision; thus, [. Six holes were then drilled by a trephine into the interior of the tibia. The bone between these holes was removed by a "bone-pliers," and a large opening was made. On applying a gouge to the upper part of the cavity thus made, the instrument slipped through a thin shell of bone into an abscess just below the head of the bone. A small quantity of pus escaped. The walls of this abscess were then gouged away, and the scrofulous matter lining the abscess removed. The wound was filled with lint, and water-dressing applied. The patient was placed in bed, with his leg raised, and abducted, upon a pillow.

13th.—Suppuration established; wound syringed with Condy's fluid. Patient states he feels very comfortable.

16th.—Pulse 157, temperature 102⅘°; has had shivering; tongue dry. Ordered brandy ℥vj., and quin. sulph. gr. ij., acid. sulph. dil. ɱxx., aquæ ℥j, t.d.s.

18th.—Has had repeated shivering attacks; looks queer and sunken about the eyes, and his skin appears slightly yellow. Pulse 152; temperature 102°; no pain.

20th.—He "wanders" a good deal at times, particularly at night. Pulse 152; temperature 102°.

21st.—The skin is very yellow indeed; the discharge from the wound has much decreased in quantity; slight cough; pulse 124; temperature 100°.

23rd.—No pain in wound, but great swelling of the knee-joint, and this joint is acutely painful.

25th.—The House-Surgeon was called to see him last evening about 7 o'clock, and found he was "stupid" and his cough very bad. Pulse very quick (164) and very weak. He gradually sank, and died at 10 a.m. this morning.

Post-mortem Examination Thirty-two Hours after Death.—At the post-mortem his body was found very much emaciated, and the skin of an intensely bright yellow colour. The wound had a very unhealthy appearance. On opening the knee-joint of the same leg it was found to be full of pus. But this pus did not appear to have been originally formed in the joint itself, as the membranes thereof were found quite healthy, but to have traversed some one or more channels which were found to run from the wound to the knee. Thus, the periosteum on the inner side of the tibia was separated from the bone all the way from the wound to the joint, forming one line of communication. On a section being made of the upper part of the tibia the bone was found perfectly honey-combed, and infiltrated with pus, with two canals running upwards, and opening into the knee-joint. Below the wound there was no pus, but the bone was extremely vascular. No secondary deposits were found, except in the lungs. These were discovered to be very much congested, and studded all over with small abscesses. The lungs were otherwise healthy. The liver was large in size, and strumous in character. However, no morbid alteration could be perceived accounting for the intensely jaundiced appearance of the patient.

CASES OF FRACTURED PATELLA TREATED BY MALGAIGNE'S "HOOKS."

(Under the care of Mr. PARTRIDGE.)

One of the most curious of fractures is fracture of the patella. If a patella be broken transversely, it unites by bone if properly treated. Now, this has been denied—nay, is still denied by the majority of Surgeons in the United Kingdom. But all other fractured bones unite by osseous tissue; then why not fractured patellas? In truth, they are no abnormalities; they do unite by good sound bone. But then, to effect this result, the fragments must be kept in close apposition. By the ordinary plan of treatment this cannot be accomplished, consequently no true bony union can be obtained.

Malgaigne many years ago introduced his "hooks." These, he said, brought the fractured surfaces into close contact, and bony union resulted. Mr. George Gulliver, in his treatise on transverse fracture of the patella, comes to the conclusion, the correctness of which seems without dispute, that the reparative tissue is thrown out, not by the cutaneous or articular surfaces of the patella, but by the fractured surfaces themselves. This view is singularly borne out by Malgaigne, though his book was published years before. Malgaigne says that in a case of fractured patella which he had the opportunity of examining after death, he found a perfect pyramid of bone emanating from the lower fragments, fully showing that nature was making a great effort to bring about osseous union. Malgaigne invented his "hooks." They were tried experimentally by him with great success, but in the hands of others their employment resulted in signal failure. Why? It seems because more suitable cases were selected. The "hooks" should be put into patellæ belonging to moderately stout people, not into those appertaining to very obese persons. Again, if these "hooks" be applied at all, they should be put in at once, before any, or very little, effusion has occurred into the knee-joint.

Now though, according to Mr. J. Hutchinson's account of the practice of the Paris Hospital Surgeons, Malgaigne's method for producing bony union between the fractured fragments of the patella is entirely forgotten in the land of its birth, yet the following cases will fully testify that the "hooks" have been, and still are, a great success at King's College Hospital.

Case 1.—Jane H., aged 46, married, was admitted into the Female Surgical Ward of King's College Hospital, April 2, 1866, under the care of Mr. Partridge, with transverse fracture of the right patella. The accident happened in consequence of a false step made while descending a flight of stairs. She was living near the Hospital, and was brought in directly. The fracture was as nearly as possible in the middle of the right patella, and transverse, the fragments being separated about three-quarters of an inch. There was no effusion into the joint. The House-Surgeon, on the patient's admission, immediately put in Malgaigne's hooks, and brought the fractured portions into close apposition. The leg was placed on a long straight splint, flexed somewhat upon the trunk, and evaporating lotion applied on lint over the right knee-joint. Thus much for the case book. The patient went on extremely well. There was but little pain, no swelling of the knee, and no irritation about the wounds made by the hooks in the skin. These were removed May 15, 1866, and it was found that the fragments had perfectly united by bone—at least it then appeared so. The patient was discharged, with instructions to show herself in a month or two. She did present herself two months afterwards, and no trace of a fracture having taken place could be detected. The woman said "she could walk about as well as ever."

Case 2.—Alfred B., aged 36, married, was admitted into the Albert Ward of King's College Hospital, under the care of Mr. Partridge, January 4, 1868, with transverse fracture of the right patella. He slipped backwards, and suddenly straightening his leg, the break happened. He was brought to the Hospital at once. On admission, it was found that he had sustained a fracture of the right patella, running transversely and near to the upper margin of the bone. The fragments were separated about two fingers' breadth. There was little or no effusion into the knee-joint. The left patella, it was also found, had been broken transversely some six years previously; the pieces were just four inches asunder. This left patella had not been treated with "Malgaigne's hooks." The House-Surgeon fastened the "hooks" into the upper and lower fragments of the right patella, and brought them closely in apposition. A straight splint was then employed as in the case previously mentioned, and evaporating lotion applied over the joint. Up to the present time (Feb. 10), there has been no irritation caused by the apparatus, nor has there been much effusion into the joint. The patient had, for a few days after the accident, considerable spasm about the neck of the bladder, rendering it necessary for the House-Surgeon to draw his water off; but this has now quite passed away. The "hooks" have not yet been removed, for it is considered always advisable to keep them in for some six weeks, provided that they do not set up irritation; but, to all appearance, bone union has, even at this short date, been completed.

A CASE OF RUPTURE OF THE TENDON OF THE TRICEPS CUBITI.

(Under the care of Mr. PARTRIDGE.)

However common fracture of the patella may be, it is rare to see rupture of the tendon inserted into the upper edge of this bone; but how much more rare is the accident of rupture of the tendon of the "triceps cubiti," which is inserted into the upper edge of the olecranon process of the ulna. There has been a case of this most extraordinary accident quite lately received at the Hospital under the care of Mr. Partridge.

O. H., aged 21, single, a baker, was admitted into the Victoria Ward of King's College Hospital, under the care of Mr. Partridge, with rupture of the triceps cubiti tendon of

the left arm. He is a strong healthy-looking man, and states that, coming out of a shop with his basket on his arm, his left foot slipped away towards his right side, and that he fell, partly in the roadway and partly upon the pavement, striking his left arm just above and behind the elbow-joint upon the kerb. He was brought to the Hospital as above.

Present Condition.—His left arm is much swelled, especially about the region of the elbow-joint. There is a distinct depression of three-quarters of an inch in length, with a slight wound just above and behind the elbow. There is great tenderness over the tendon of the triceps, extending upwards about four inches from the upper edge of the olecranon process. The power of extension of the fore upon the upper arm is quite lost. Pronation and supination remain intact. The man had received some further injuries, for which he remained in the Hospital a few days, but these were of no serious moment. The limb was kept extended.

January 28.—The muscles of the left arm appear somewhat wasted, but the patient fancies that even now he has more power in the arm.

Now, this case seems to show that, if the view of M. Theile in "Sœmmering *v.* Baue," etc., be true—viz., that the two slips of muscle extending to the olecranon and triangular surface on the upper extremity of the ulna be a separate muscle, and which he names the "sub-anconeus"—yet that this muscle itself has no action in extending the fore upon the upper arm. The method of treatment in these cases appears to be this: The arm should be kept straight and quiet for a short time—say a week—and then that passive motion should be adopted. This should be gradually increased as the repair is established. For Paget, in his "Pathology," has distinctly proved that the new tissue developed will stretch considerably, and eventually become almost, if not quite, identical with true tendon.

CASE OF CANCER OF UNDESCENDED TESTICLE.

(Under the care of Mr. PARTRIDGE.)

The malignant disease of this organ, described under the names of soft cancer, fungoid disease, fungus hæmatodes, medullary cancer, etc., etc., is by no means uncommon, yet to have this encephaloid cancer invading a testicle which has never descended into the scrotum, but which still remains in the inguinal canal, is worth noting. A case of this description has been in the wards of the Hospital since January 15, 1868, and unfortunately the patient is now dead. The case was very obscure, and simulated hydrocele. In giving a history of the affection, the patient stated that the testicle was once in the scrotum, but that, in consequence of a fall, it returned into the inguinal canal. Did the organ ever fairly descend? In 1866 there was also a case admitted of this description under the care of Sir William Fergusson, but here both testicles were absent from the scrotum. The right, the one in which the cancer was developed, was in the inguinal canal, but the left testicle could not be felt anywhere; indeed, it was found after death in the cavity of the abdomen. However, in the case now reported the left testicle was in the scrotum, and the right only absent from its proper situation. The case is as follows:—

Thomas F., aged 46, married, having had twelve children, was admitted into the Albert Ward of King's College Hospital, under the care of Mr. Partridge, with a tumour of the right inguinal region, of doubtful character, on January 15, 1868.

The patient states that when six years of age he fell, striking his right testicle, and that the organ immediately retracted itself into the groin. It afterwards became very painful at times, but continued of a normal size for some twenty years. It then began to increase in dimensions, until it reached the size of an orange. Tapping was the operation then performed by a Doctor, and the testicle was tapped and tapped, again and again, for some eighteen months. A clear fluid escaped on each occasion. The testicle now gave him no further trouble for two years. About one year ago the tumour in the groin became very painful, and his right leg began to swell considerably. This increase in size of both the limb and testicle went on for some time, and the tapping process was once more resorted to. Since this time the swelling in the inguinal region, and in the right leg and thigh, has gone on increasing rapidly, and the groin has become exceedingly painful.

On Admission.—Is a cachectic-looking individual, with a tumour just above Poupart's ligament on the right side. This tumour is of an oval shape, six inches long, and nearly three inches in its transverse diameter. It feels tense and fluctuating; is movable. The patient complains of great pain in the lower part of the back. There is no testicle in the right side of the scrotum, but the corresponding organ is present on the opposite side. There is enormous œdema of the right leg and thigh. Ordered: The leg to be bandaged from foot to groin, and the following:—Ammon. carb. gr. iv.; tinct. camph. ɱxv.; aquæ ʒj.; t. d. s.

January 19.—The bandaging has somewhat reduced the swelling of the limb. The patient complains of much pain in the tumour of the groin.

23rd.—Mr. Partridge, the patient being under chloroform, made an incision in the long axis of the ovoid tumour over its whole length, parallel with Poupart's ligament. The upper layer of the tunica vaginalis was exposed, and punctured, when a large quantity of serous fluid of a dark colour escaped. At the time it was thought that the testicle had now been reached. It apparently was very much enlarged, but no trace of the proper structure of the organ could be discovered. The mass was very hard, and as the hard mass seemed to be continued through the abdominal walls into the cavity of the abdomen itself, Mr. Partridge passed a strong ligature around as much of the mass as could be reached, and the external portion was then cut off. Some slight bleeding occurred, but was stopped by styptics and pressure, for it was found impossible, owing to the hardness of the mass, to get a ligature to hold. Water dressing applied.

24th.—Patient complains of no pain. Pulse 132. A good deal of hiccough, and slight tenderness of the abdomen; swelling of right leg diminished slightly. But the man died suddenly at 10 p.m. For the report of the post-mortem examination thanks are due to Dr. Kelly, the Pathological Registrar of the Hospital.

Post-mortem Examination Forty two Hours after Death.—The body was found extremely fat. In the right groin was a long incision parallel with Poupart's ligament; at the inner end of this was an oval hardness about the size of a testicle, constricted below, where it was adherent to the parts around. Its upper surface was smooth, whence a large mass had been removed during life; and around all was a dense fibrous sac, which seemed free at the upper part of the mass, and here, during life, had been the considerable quantity of dark-coloured fluid. The tumour itself was composed of a large number of oval, tailed, and caudate cells; some with two or more nuclei, imbedded in a fibrous stroma. At the lower part a few seminiferous tubes could be traced in the diseased mass. The vas deferens could not be traced at this spot, but it appeared normal where it entered the prostate. The external iliac and femoral vessels, for about four inches, were surrounded by a soft whitish deposit of medullary cancer, and at one spot, where the vessels pass beneath Poupart's ligament, the vein had become much narrowed; so that behind there was a large quantity of blood, while the vessel was empty in front, and this explained the œdema of the leg. The surrounding glands were affected; one or two had attained the size of a walnut. Still further around, inflammatory thickening had taken place, so that it was difficult to make out the exact relation of parts. What seemed the remains of the right testicle appeared to lie in the internal abdominal ring, which was much dilated, and the disease, which attacked mostly the upper part, lay in front of the external oblique aponeurosis and fascia lata. Everywhere the deposit of fat was enormous; all the abdominal viscera were fatty. The heart, apparently the cause of death, was large and flabby, and not only was there an increase of adipose tissue in the walls, but the muscular fibres had undergone fatty degeneration. There were no secondary deposits of cancer.

It was believed that death arose from the fatty heart. It may be observed in connexion with this case, that for propagating the human species one testicle appears to be as good as two. This man, from his history, had twelve children. In the former case, under care of Sir William Fergusson, the man was married, but had no children. Some hold that when the testes are undescended there is no procreative power. The hydrocele most probably was caused by the gradual development of the malignant disease, constituting the condition called by some hydrosarcocele. How long the disease had been coming no one can say positively, but it seems that, in this case, the progress of the cancer must have been slow. As a rule, the disease increases and kills the patient most rapidly.

THERE are forty-two vacancies for Assistant-Surgeons in the Army Medical Service, for which fifty candidates have presented themselves, mostly from the Irish schools.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 15, 1868.

PUBLIC HYGIENE.

Hitherto it has been the custom to a great extent to leave not only sanitary talk, but sanitary work, to the Medical Profession. We wish we could assert that the Profession has recognised the full measure of the responsibility thus accruing. But facts are stubborn things, and these compel us to say that while numbers of zealous, indefatigable, thoroughly able men amongst us have rendered invaluable services to the public health, and have practically exemplified, often under most adverse conditions, what sound hygienic science means, yet as a body the laws of health have no *locus standi* in, and public hygiene forms no part of, the *curriculum* of our schools, colleges, or examining boards. England has the unenviable privilege of standing alone in this respect among European nations; how long she will be content to occupy so invidious a position remains to be seen. A glimmering of hope for the future is shown in the fact that the present Gresham Professor of Medicine has undertaken to do what in him lies by public lectures to popularise sanitary science, because he is "profoundly convinced that knowledge of health-laws, common sense, and self-control would prevent an immense majority of the illnesses which it is so difficult to cure." "It is right," he says in his able introductory lecture, "to take care of our health, because good health is the most important aid to vigour, courage, energy, and success in life, and because feeble health prepares the way to every kind of evil and failure both of body and mind." Or to put the same thing into poetical language—

> "Ah! what avail the largest gifts of heaven,
> When drooping health and spirits go amiss?
> How tasteless then whatever can be given!
> Health is the vital principle of bliss."

Isolated effort, however, can only succeed in illustrating the necessity for a great national movement in this direction—the recognition, in effect, of public hygiene as a fundamental element in our domestic polity.

We have been led into the foregoing train of thought by some excellent remarks in the Registrar-General's Quarterly Return, which cannot have too wide a publicity, and therefore we quote them here.

After commenting on the proof of a favourable state of the public health last quarter, in comparison with that of former seasons, which a summary review of the national registers affords, the Registrar has to change his tone of congratulation to one of regret as he is confronted by "exceptional facts" that cannot be regarded with satisfaction.

"For it is impossible," he says, "that the elements of nature, however happily blended to constitute a fine autumn, can successfully contend with human ignorance and neglect, can suddenly counteract poisonous emanations from drains and from marsh lands covered with hovels, or sweeten well water that has been contaminated with sewage. It is found that in different situations there were outbreaks of fever which the local officers attribute to overcrowding, bad drainage, or otherwise defective sanitary conditions; they were not confined to towns, but occurred equally in the purer atmosphere of the country. Such outbreaks are at all times numerous enough, and if they were all reported would probably be found more numerous still. They occur in the secluded hamlets of thinly peopled districts, where inspectors of nuisances are unknown; where the Doctor, when summoned, is too busy with his patients to explore their surrounding conditions; and where, as fevers may be prevalent without being fatal, it is obvious that even an intelligent registrar living at a distance, it may be of some miles, has but imperfect means of acquainting himself with authenticated facts. Epidemic disease is rapid in its origin and progress; the art of sanitation, as applied by public bodies, is slow and often difficult."

Here is the weak point in all our efforts to fight with and conquer disease. A whole community is jeopardised by the "ignorance and neglect" of any one or more of its members; thus the points of attack are manifold, while the knowledge necessary for defence is limited to a degree altogether inconsistent with the public safety. The evil is admitted; the remedy is surely not difficult of attainment. The Registrar, at any rate, offers a suggestion which is worth notice in view of the probability of legislation on the general question of education throughout the country.

"What may be done with the present consent of all, and the prospect of certain benefit in the end, is the wide diffusion of sanitary knowledge among all classes, not excepting the rich. People must be taught to protect themselves. If wells in the neighbourhood of drains are fraught with danger, the fact should be made familiar to all; and, if there be a simple and ready means of detecting pollution in water, that too should be universally known. Short and easy lessons on the physicial forces, on animal and vegetable physiology, on health and longevity, should be interspersed, in elementary school books, with sketches in natural history, narratives of adventure, and other more attractive matter."

This is exactly what is wanted—the teaching of the elementary laws of health *pari passu* with the ordinary branches of education. But it is evident that this must be taken in hand as a national question if national results are to be looked for. And the unfortunate part of the business is that our lawmakers themselves have great need to "learn their letters" before anything satisfactory in the way of legislation for the spread of sanitary science is possible. We apprehend, in short, that the creation of a Public Health Department, on a thoroughly scientific and practical basis, must precede any great movement for popularising the laws of health. Supposing the existence of such a department, constituted so as to inspire confidence in its judgment, there would then be a means of educating, stimulating, and directing legislative action of a kind that would give fair hope of success.

Of anything less satisfactory than the present state of things, it is hardly possible to conceive. We have not one, but two public departments which concern themselves with sanitary affairs, but of both it may be said that their action is illustrative of "shutting the stable-door when the steed is lost." The Registrar-General and Mr. Simon tell us in their reports of dangers past—the former having the advantage as regards more frequent intervals of publication than the latter—but who is there to direct and advise as accessories *before* the fact? Nobody at present; and the sooner that deficiency is supplied, the better for the nation in every respect.

HORSEFLESH AS FOOD.

When the cattle plague was committing its ravages amongst our "flocks and herds," and making us tremble for our future supply of butcher's meat, we heard, not without interest, that a number of gentlemen in Paris, men of science, heads of de-

partments, literary men, journalists, and others, were endeavouring, by the force of example, to popularise the consumption of horseflesh as an ordinary article of food in that capital.

Now that the cattle plague has departed, now that butcher's meat has been cheapened, and our fears for a sufficient supply of animal food dissipated, the attempt which was made at the dinner at the Langham Hotel on Thursday last to introduce horseflesh as an ordinary article of food into this metropolis scarcely excited that serious attention which it doubtless would have received two years ago. People were disposed to look upon it more as a curious experiment than as a serious attempt at innovation.

The dinner, however, has taken place, and we found ourselves on Thursday last seated at table with about a hundred and fifty others disposed at any rate to test the merits of horseflesh "without *prejudice*." It is, however, very much to be doubted whether the institution of a dinner at a guinea and a half a head is the best means of satisfactorily estimating the edible qualities of horseflesh. With every advantage of exquisite cookery, savoury sauces, and the accompaniment of wines of fine quality, it would not be difficult, we imagine, to make almost any kind of flesh palatable. We would ask Mr. Bicknell, therefore, to give us a horseflesh dinner at a shilling or eighteenpence a head, with a plain soup and plain roast and boiled joints, with potatoes, bread, and beer. After a dinner of that description we feel that we should know considerably more about the flavour of horseflesh than we do at present. We can say this, however, of the dishes we tasted—they were all palatable. But we were by no means charmed with a slice of the plain roasted baron. It was not to be named with ordinary ox beef, and we imagine that no one would choose the former if it were possible by any means to get the latter. It also appears to us that horseflesh leaves a pungency on the palate that is not agreeable—a pungency that reminds one of what one has been eating for some time after the meal is over. This may, however, be the result of "*prejudice*," but we noticed the same thing after tasting some "horse-tea," which it has been proposed should be introduced into our Hospitals.

We had an opportunity, at the table at which we were placed, of comparing the qualities of horseflesh with the flesh of the bear, a roasted loin of bear, taken from an animal which had been killed in the Zoological Gardens, having been provided, we believe, by Mr. Frank Buckland. The bear's flesh was exceedingly strong and unsavoury, and was generally admitted to be less palatable than that of the horse. Setting aside, then, altogether the experience of this dinner, which, we contend, was not calculated to give one a very accurate idea of the nature and properties of horseflesh, it may not be uninteresting to run over briefly the history of the attempts that have been made from time to time to introduce this food into general use, and to examine the arguments that have been put forward in its favour.

It is said that the objection to the use of horseflesh is only a *modern* prejudice; that our German and Scandinavian forefathers delighted in "*la viande de cheval*." It appears that they kept large herds of white horses, which they were in the habit of sacrificing to their divinity, Odin; and as each sacrifice was followed by a dainty feast of boiled horse, they stuck to their religious rites with great pertinacity, so much so that, in the seventh or eighth century, one of the popes—we forget his name—thinking that he saw in this predilection for horseflesh a barrier to the spread of Christianity, and an inducement to these tribes to cling to their old religion, gave orders that the use of this food was to be discouraged, and, if possible, put down. Another pope of later date, whose name also we forget, saw things in the same light as his predecessor, and issued another protest against the use of this animal as human food. It is historical fact, if fact it be, [illegible] put forward by some hippophagists with the view of enlisting our *Protestant* feelings on their side.

But there are, no doubt, numerous proofs that the flesh of the horse is, at any rate, a *wholesome* food, and, indeed, there seems no reason why it should not be. The horse is an herbivorous animal, and a very clean feeder; and experience has shown that it may be taken as food exclusively for long periods without producing any ill-effects.

Parent Duchâtelet, who was a great advocate for the introduction of horseflesh as an article of food in Paris, stated, thirty years ago, that the flesh of this animal was *at all times fraudulently* used by the *petits restaurateurs* of that city. He also states that during the famine at the end of the last century, for six months, the *greater part* of the meat consumed in Paris was horseflesh, and no inconvenience to the public health followed its use.

Baron de Tott, an envoy from the King of France to the Khan of Tartary, found that a joint of horsebeef figured constantly at the table of this potentate, and he declares that some smoked ribs of horse of which he partook were excellent. He adds that wild horse is chased as game in all parts of the world where it exists. Baron Larrey, the eminent army Surgeon, appears to have had great faith in the wholesomeness and the nutritious properties of the "bouillon" made from horsebeef, and he was in the habit of giving it to his wounded in all the campaigns in which he was engaged. We are also told that in Denmark, ever since 1807, butchers' shops have been established for the sale of horseflesh, and that at the present time it is sold there at the rate of twopence-halfpenny the pound. In Prussia it has been used as food since 1825, at which time there were five shops for its sale in Berlin. Its use is universal in Austria and in many other German States.

As to its nutritive qualities, we were told at the banquet at the Langham Hotel that horsebeef is one-sixth more nutritious than that of the ox, *that it is richer in soluble nitrogenous principles;* and Baron Liebig, as well as the celebrated German chemist Moleschot, support this statement. But it must be remembered that the value of a food does not depend solely on the absolute proportion of nitrogenous principles which chemical analysis may show it to contain. The nutritiousness of a food depends much, as every practical observer knows, on its being grateful to the palate and to the stomach. A food that, of itself, stimulates a relish or appetite, though it may contain relatively less albuminous principles, will be found really more nutritious than another which is richer in soluble nitrogenous substances, but is less palatable. The energetic attempts that have of late years been made to introduce this food into general consumption in France, have at length met with a certain amount of success.

Men of considerable scientific eminence have joined in this movement, and the man who perhaps, of all others, has contributed chiefly to its success is the celebrated naturalist Isidore Geoffroy Saint-Hilaire. During the last twenty years, from his chair in the Museum of Natural History, in books and pamphlets, and by every other means in his power, he has striven to remove the legal barriers which existed to prevent the sale of horseflesh in France. Starting with the assumption that animal *flesh* is the basis of all food—at any rate in northern and central Europe—and that an insufficient supply of food of this kind is the cause of the anæmia, cachexia, scrofula, and phthisis so common amongst the poor, he urges that it is a duty we owe to humanity to attempt to remove the prejudices which exist against a food the general consumption of which would do much to remove these evils. He states that in some parts of France the peasantry scarcely taste animal food twice in the year, and that in consequence of this their moral and physical degradation are extreme.

M. Saint-Hilaire calculates that there are 3,00[illegible],000 horses in France; that the annual mortality amounts to 400,000: three-fourths of [illegible] unfit for

food. There are thus 100,000 horses killed annually which might be used as human food. (In England the number has been estimated at 75,000.) This would be equal to one-fourteenth of the whole amount of animal food—the flesh of the ox, pig, sheep, and goat—consumed in France in one year. In June of last year the legal restrictions forbidding the sale of horseflesh in Paris were removed, and there now exist twenty-three establishments devoted exclusively to the sale of "*la viande de cheval.*" These are all situated in the most necessitous quarters of Paris, and the poor people of that city can now for four or five sous obtain a pound of horseflesh with which they can make a savoury ragoût of potatoes or other vegetables. It is calculated that each of the twenty-three shops in Paris sells five or six horses a week. This would represent an annual consumption of 6000 horses a year. Every precaution is taken to prevent the sale of the flesh of diseased animals. There is an inspector and subinspector of slaughter-houses and of the butchers' shops, both of whom are Veterinary Surgeons. The animals must be between the ages of 6 and 12 years. Every animal suspected of contagious disease is rigorously excluded; even cases of simple fracture are rejected, because it is known that a feverish state always supervenes two or three hours after the accident. The inspector examines the horses after death, and if the lungs show any signs of disease, or if they are not of the normal colour, the sale of the meat is interdicted. A class of "*courtiers*" go the rounds of the horse proprietors, and buy up for the butchers the animals for which they have no further use. It is stated that they always have an abundant choice, and that they prefer mares and entire horses, as these prove to be the best eating.

Such, then, are the arrangements made for the sale of horseflesh in Paris. We now come to the practical question. Is it desirable that we should start establishments similar to these in London?—for that, we presume, is the wish of those who took a serious part in the equine entertainment of last week. We see no great reason for promoting this object. We do not pretend to say that the horseflesh shops of Paris are not a great boon to the poor of that city, but we doubt very much if they would prove of any advantage to the poor of London. Setting aside the difference in French and English cooking, there is always abundance of flesh-meat within the reach of the poor of London, much more so than is the case in Paris. Then, again, in London there are constantly large quantities of good and wholesome fish, which is sold at very low prices in the markets for the poor. It is now generally admitted by all but the wildest enthusiasts that horseflesh is essentially a food *for the poor*—that it is not likely ever to attract the taste of the rich. It is therefore essential that it should be cheap; but we doubt very much, if the demand for horseflesh as human food were to become considerable, that good, wholesome horseflesh would be cheaper than the coarser joints of ox-beef. There is already an abundant demand for horseflesh in our kennels, and for dogs and cats generally, and if there were to arise another equally urgent demand in another direction, horseflesh would not be so cheap as is supposed. Besides, very few of the animals that "go to the dogs" would be fit for human food; and this brings us to another important consideration. Supposing we overcome the popular prejudice against the use of horseflesh, is it possible to obtain it *good* in sufficient quantity to make it an important article of consumption? Whatever may be the case in France and other continental countries, we believe that, in our own country, this question must be answered in the negative. The horse is too valuable to be slaughtered young, or at the age fixed in Paris—viz., between six and twelve years. It follows that most of the horses killed would be old, lean, and exhausted—animals which it would be impossible to fatten, and which would yield bad or inferior meat. It is estimated that out of 11,000 horses killed annually in Paris, 8000 are diseased, and the remaining 3000 are poor emaciated beasts, half dead of old age and fatigue, and not the least calculated to make one's mouth water. Horseflesh of good quality is, therefore, always more or less an exception; there is, consequently, the risk that the insufficiency in the supply of healthy horseflesh would tempt to the introduction of unhealthy food.

We are disposed, therefore, to admit that horseflesh is wholesome, nutritious, and not altogether unpalatable, especially if the animal is healthy and in good condition; but we do not believe it to possess either of these qualities in the same proportion as the flesh of the ox. We doubt altogether the possibility of providing a sufficient quantity of good wholesome horseflesh, except in times of famine, war, or other distress, to make its adoption as a general food in this country of any importance whatever.

Let us, by all means, endeavour to remove any "*prejudices*" that may exist as to the wholesomeness of this food, so that if we should ever be compelled, from force of circumstances, to eat horseflesh, we may eat it with a quiet mind; but do not let us exaggerate the influence of this attempted innovation, or be induced to regard it as a great, charitable, or philanthropic, or economic undertaking.

THE WEEK.

TOPICS OF THE DAY.

PARLIAMENT will have reassembled before our pages are in the hands of our readers. As in former years, we shall endeavour to extract for their notice all that is of Medical interest in the proceedings of both Houses. We fear that the last year of an expiring Parliament will not be signalised by any great measures for the advance of the physical well-being of the population. Something, no doubt, will be done to remedy the abuses of provincial Poor-law administration, and we may reasonably hope that the position of the Poor-law Medical Officer will be improved.

But reform is a thing which cuts both ways, and it is rumoured that whilst the position and pay of the Poor-law Medical Officer will be raised in every possible way, in the course of the improvements meditated by the Poor-law Board, it is possible that the hitherto permanent or life tenure of the office will come under consideration, and will probably be modified, if not abolished. It is felt that if the position be what it ought to be, there will be no need to interfere with the usual law of demand and supply, and to hinder it from being an object of periodical competition amongst the Practitioners of the district.

Mr. Lowe's answer to the address of the 250 graduates of the University of London who have invited him to represent the University in Parliament is a clear and able statement of his political opinions and political services. It takes no special notice of the fact that the constituency addressed is anything other than an ordinary educational body, called into existence by the Liberal party, and founded on unsectarian principles. It contains no reference to the truth that the University of London has gained its chief success as a University for granting Medical degrees, and that at least the Medical and scientific graduates have a right to expect that their representative should pledge himself to watch over the interests of the Medical Profession and of science generally in this country. Although we differ from Mr. Lowe on many points, we admire his talents too much to question his great claims on the Liberal party amongst the graduates, if the election is to turn upon mere political considerations. But we do not think that these should alone have weight in the case. The *Times* newspaper, dilating upon the slight tie which holds the graduates together—merely that of having passed the same examinations—exhorts them not to limit their choice to their fellow-graduates, but to return the best man from whencesoever he may come. All we can say is that if,

in the nineteen years of its existence, the University of London has not produced a man qualified to represent it with dignity and success in Parliament, it is a fact which casts considerable doubt upon its efficacy as an educational body. If the University wish to gain renown from their representative instead of conferring it on him, they cannot do better than return such a man as Mr. Lowe. On the other side are to be considered the claims of distinguished men amongst their own graduates, and the great chance open to the University of returning a man who could lead the House of Commons on all public scientific subjects. The candidates now in the field besides Mr. Lowe are Sir John Lubbock, Mr. Quain, Q.C., and Mr. Walter Bagehot. Dr. Frederick Wood has retired in favour of Mr. Lowe.

All who take an interest in science must regret the death of Sir David Brewster. Rapidly, one by one, the great scientific names of the passing generation, both here and on the Continent, are disappearing. Will the present generation of scientific men leave the world under so great obligation as those with whom the history of the first half of this century is identified? Sir David Brewster's long life—he was in his 87th year at the time of his death—from the close of his University career, when delicate health determined him to forsake the Kirk, for which he had been destined, and apply himself to science, is a history of the triumph of sagacity and perseverance, and he reaped nearly all the honours and rewards to which in this country a scientific man can hope to attain. We will not speak here of the great discoveries in light and optics with which his name will always be identified; for these we must refer to the purely scientific journals of the day, but it may be interesting to our readers to know that in 1832 Sir David Brewster turned his attention to the subject of cataract, and suggested the possibility of cataract depending upon an irregular or wavy condition of the lines which define the fibres composing the crystalline lens. In the experiments made by Weir Mitchell and Richardson on the synthesis of cataract, a condition such as was suspected by Brewster was actually found in the crystalline lenses of frogs in which cataract had been produced by the injection of sugar and other substances into the dorsal sac.

Dr. Richardson's fifth lecture, delivered on Tuesday last, was a study of the influence exerted by anæsthetics on the brain and nervous system. The obvious fact that the motion of the heart and the movements of respiration continue in action while the rest of the body is under the narcotic effect, during anæsthesia, proves that the whole nervous system is not involved, and that the involuntary and semi-voluntary muscular mechanism is also not involved except when extreme and fatal symptoms are developed. What parts, then, are influenced by an anæsthetic? The idea was almost intuitive that the brain is the organ affected, and that the centres of consciousness are those chiefly held in abeyance. But, to prove this as true, experiment was necessary. In proof, the lecturer took a large pigeon, narcotised it deeply with chloroform, and in this state passed through its body, from the head to the foot, a rapid intermittent induction current. The bird instantly rose from the table, extended its wings, opened its eyes, and seemed as if restored; the current was then stopped, and the bird was shown to be as deeply asleep and as powerless as before. Another bird was put to sleep by freezing the brain, and when utterly insensible was subjected to the electrical shock in the same way, when it flew from the table into the room, where, breaking its connexion with the battery, it dropped on the floor comatose, motionless, and as anæsthetised as before, in which condition it remained for many minutes. The lecturer in these experiments demonstrated that the anæsthetic action was localised in the cerebrum. His battery was like an outer brain, which supplied power without intelligence, and which, by the effects of its current, showed that all the muscular elements were ready for work, and only awaited the order from the brain. The lecturer next discussed the question—What, during the process of anæsthesia, leads to this change in the brain? Is there a chemical action on albumen? Is there pressure on brain matter? Is there deficient oxidation of the blood. Is there contraction of blood-vessels, and diminished supply of blood from that cause? All these hypotheses were experimentally tested and negatived. It was admitted that during extreme anæsthesia there is reduced oxidation and a singular reduction of temperature. These changes are inevitable, because the anæsthetic vapours replace oxygen during their diffusion into blood; but the diminished oxidation is not the cause of the insensibility. In proof of this Dr. Richardson showed an animal breathing an air in which the oxygen was reduced by addition of nitrogen from 21 parts to 9 parts in the 100, side by side with another similar animal breathing an air in which the oxygen was reduced by the addition of vapour of bichloride of methylene only to about 20 parts in the 100—viz., 4 cubic inches in 500. The result was that the animal in the extremely reduced atmosphere was quite unaffected whilst the animal in the slightly reduced atmosphere was in the deepest narcotism. Then a correcting experimental test was adopted, and the bichloride was administered in an atmosphere containing an excess of oxygen, the oxygen being present in double its ordinary or natural proportion; the excess of oxygen exerted no perceptible obstacle to the anæsthesia. To determine whether there was contraction of blood-vessels under anæsthetics, the lecturer had had recourse to transparent small trout; through their bodies, with the microscope and the one-inch lens, the blood-vessels could be seen, and the corpuscles flowing through them. These animals can be narcotised readily by making them breathe water saturated with chloride of methylene or ether. In the narcotised condition, the vessels do not contract, but under the influence of ether, in the later stages before death occurs, dilatation and regurgitation are observed. The latter is noticed also when chloride of methylene is used. With both reagents breathing and vessel circulation cease before the heart's action. The lecturer concluded that anæsthetic vapours act directly upon nerve matter either by preventing the development of force or by stopping conduction. The latter hypothesis is supported by the fact, proved by experiment, that these vapours obstruct the conduction of heat and electricity.

We are glad to see that in the General Orders published on January 7 at Camp Zoulla, Sir Robert Napier accords due praise to the "important and praiseworthy" labours of the sanitary officer, Dr. Lumsdaine. The best evidence of the value of the work done by the sanitary branch of the Medical Department in Abyssinia, is the wonderful health which the troops have hitherto enjoyed. Of the whole force, we believe that there have not been more than about forty on an average in Hospital, and this in a climate which has been represented as most inimical to Europeans.

We have received from the St. Andrews Medical Graduates' Association a printed memorandum containing a succinct account of the grounds on which the graduates rest their claims to the franchise. This memorandum has been drawn up for the consideration of Mr. Disraeli. We should gladly have reproduced it in our columns could room have been found, but our readers have already been made aware of the arguments on which the St. Andrews Graduates' Association rely. To us they appear unanswerable. The Doctors of Medicine of St. Andrews enjoy the same public confidence which is reposed in the Medical graduates of other Universities. They hold the same social and Professional position, and it is most unjust and invidious to exclude them from a voice in the representation of their University. The plea of non-residence is utterly insufficient, in the face of the example of the University of London.

We have received a Lincolnshire paper containing the report

of an inquiry instituted by the Poor-law Board into certain charges made against Mr. E. F. Broadbent, the Medical officer of the Lincoln Workhouse. The charges generally resolve themselves into allegations of neglect of duty in not visiting paupers immediately when applied to; charging the guardians for a fracture which he had not himself personally attended, the case not being that of a pauper; and irregular attendance at the workhouse. Some of the charges seem not to have been clearly proved, and evidence was given that Mr. Broadbent had suffered from an illness which might exculpate him from others. It would be premature, however, to offer any opinion on the case, as it is still under the consideration of the Poor-law Board.

It is stated that there is a probability that the new nomenclature of diseases prepared by a Committee of the College of Physicians will at last be published. The Committee was appointed so long ago as July, 1857, but the changes in the constitution of the College gave rise to an interruption of their labours which lasted for five years. The nomenclatures are in Latin, French, German, and Italian.

We are sorry to see that the contest continues between Drs. Hardwicke and Diplock for the Coronership of West Middlesex.

An advertisement appeared in our last number announcing that the Richardson Testimonial Fund was to be closed on the 24th of next month. Our readers do not require to be reminded of the unceasing, varied, and unrequited toil which Dr. Richardson has during many years ungrudgingly bestowed on the advancement of Medical science. The new light which he has thrown on some of the most abstruse parts of physiological study, the discoveries he has made in the art of annihilating pain, the comparatively new path in Medicine opened by him in the synthetical investigation of disease, have placed him in the foremost rank of Medical observers. Work of this kind, however, is not remunerative; it has been for others, and not for himself, and it has been generally felt that the public and the Medical Profession would gladly come forward to express, in a tangible form, their appreciation of it. The Committee wish to raise the sum to be presented to Dr. Richardson to £1000. We hope that a much larger amount will testify the gratitude of the English public to the discoverer of local anæsthesia by ether spray.

THE FEVER AT TERLING.

The epidemic, since our last report, has presented no new features; it is still dragging its sure and fatal length along, unchecked by activity or energy; in fact, the pestilential air of the unfortunate village seems to have paralysed the minds as well as laid low the bodies of its inhabitants. The attempt to remove the nuisances has so far been a failure in consequence of the want of hands; materials for the purpose of building and repairing privies, etc., are lying about because there are no workmen to make use of them. Help from without is the one thing indicated, and it was proposed to send thirty or forty stalwart hearty men from the district where so many are out of work, to help their fellow bedridden labourers at Terling, by doing the work of cleansing for them *cito et jucunde*. The men would have been well fed, well-paid, and kept actively at work under the superintendence of a foreman, and a temporary residence provided for them in the neighbourhood whilst engaged. Of course they would run no risk of infection, or at least no more, nor, indeed, half so much, as the fagged-out Medical men and Sisters of Mercy, and good only could accrue to those for whom the good was intended; but this thorough mode of doing business was considered "injudicious," and so the offer was rejected. We must also infer that the erection of an iron Fever Hospital was likewise considered "injudicious," inasmuch as it has not been done. Eight men, described as "stalwart and hearty," and dressed in the garb of labourers, were brought up on Wednesday at the Marlborough-street Police-court, for begging in the streets and singing out, "We have got no work to do;" but they were discharged, as their case was one of genuine distress for want of work, and not for a want of a wish to work. Such men might be usefully employed in hundreds of places, where, as in Terling,

> "The earth's a thief,
> That feeds and breeds by a composture stol'n
> From gen'ral excrement."

THE RETIREMENT OF INSPECTOR-GENERAL MOUAT.

We understand that the Inspector-General of Army Hospitals, J. Mouat, V.C., C.B., is likely soon to retire on half-pay, the reason being that the state of his health does not permit of his taking another tour of service in India. It is to be regretted that the Army Medical Department should lose such a distinguished officer, but a rule of service having once been established cannot be set aside in individual instances without inflicting injustice on others. The Director-General must frequently have such difficulties to contend with, and we are glad that in this, as in every other instance, he is maintaining the character for judgment and impartiality with which he entered upon his arduous office. It is probable that the vacancy caused by Mr. Mouat's retirement will be filled by Dr. Dane, the senior on the list of Deputy-Inspectors-General, and who is at present at the Cape of Good Hope.

TYPHUS IN METROPOLITAN HOSPITALS.

We beg to call the attention of both the Professional and lay supporters of our metropolitan Hospitals to what we look upon as an offence against both hygiene and charity with which the managers of one or two of our Hospitals are chargeable. In a metropolitan charity, which—in the hope that our remarks may bring about a speedy reform on the part of the governors—we shall not name, cases of typhus are not only admitted into the house, but are absolutely placed in the ordinary wards allotted to patients suffering from such general affections as pneumonia, heart disease, and so forth. So reckless and unscientific a proceeding, in the present state of knowledge, merits no light censure. We know of nothing in the recent workhouse revelations more objectionable than the practice of placing typhus patients in general wards; and we feel certain that if the charitable men and women who support our metropolitan Hospitals were aware that any of these institutions were chargeable with the same offence, they would take immediate measures for its correction. At all events, in the hope that our remarks may come under their notice, we have called attention to what we regard as a flagrant error.

THE HARVEIAN SOCIETY.

At a meeting of the Harveian Society on Thursday, the 6th inst., Dr. Fuller read a paper on the doses and actions of medicines, the object of which was to incite the Society to constitute a committee for the purpose of investigating the many sources of information now available in the experience of the Medical community, and often handed down from father to son, as to particular uses of drugs and peculiar plans of administering them. The proposal was severely criticised by several speakers, who pointed out the almost insuperable difficulties which would impede the labours of such a committee; and the fact that almost every speaker opened up a new source of difficulty showed the risky nature of the undertaking. Still, as, when explained by Dr. Fuller, the proposal assumed more modest and manageable dimensions, it was agreed that something should be attempted, and a committee was accordingly nominated for that purpose. Amongst those who took part in the debate were Drs. C. J. B. Williams, Handfield Jones, Broadbent, Pollock, and Sutton.

CAN WE ENLARGE OUR BILL OF FARE?

THERE are two grounds on which we may desire to add to the list of animals that figure on our dinner tables—one, that of variety; the other, that of economy. As regards variety, there is no doubt a longish list of indigenous mammifers which are eatable. Amongst the rodents, for example, why should we be confined to the hare and the rabbit? the latter, by the bye, a beast so dry and insipid that it is almost the only kind of flesh on which human life cannot be supported for any length of time. The squirrel is a clean-feeding, plump little animal, and has been eaten from time immemorial in the New Forest; there is said to be to this day an annual Squirrel Feast at Lyndhurst. The ancient Romans ate dormice, and esteemed them great luxuries; though, so far as we know, the last mention of them in modern bills of fare occurs in the famous dinner after the manner of the ancients in "Peregrine Pickle." The common mouse and the rat, if fed up on barley-meal, would contribute some savoury ingredients to a *pot au feu*. As for the water-rat, we were once dining at the A—— hotel, at Brighton, when the host, one of the most accomplished *chefs* in Europe, declared that he had in his time, from Professional motives, eaten everything eatable, and that the nicest creature he had ever eaten was the water-rat. As for the carnivora, young cats form the favourite new year's dish of Swiss peasants; and young puppy, if fat and nicely fed, would be better than old tough rabbit. Certainly any one who would eat young rooks need not object to anything carnivorous or insectivorous. Flesh-feeding or carrion-feeding *per se* can hardly be an objection to any one who eats the eel, and chicken, as is well known, delight to feed as foully as the pig, whose flitch accompanies them on the dinner-table. After all, the greatest question is the economical one. No doubt we can eat squirrels and water-rats, but would it pay? The creatures would soon be exterminated, if hunted for food, without some provision for breeding them; and that might fetch up the price. Rats at present are worth fourpence a piece, for the purpose of affording sport to dogs; and three rats would not be equal to one pigeon, which costs tenpence. This is the one doubt with regard to horse-flesh; still, if prejudice permit, it is possible that the sale of wholesome horseflesh would enable many persons to eat animal food to whom it is now a rare luxury.

ENGLISH OPIUM-EATERS.

IN accordance with the old saying, that the looker-on sees most of the game, it would seem that our Indian contemporaries are more alive to the habit of opium-eating among us than we are ourselves. The *Indian Medical Gazette* for December contains a very interesting leading article on the subject, in which expression is given to opinions that, though little favoured here, would appear to deserve some consideration. The writer starts with the belief that the practice of opium-eating "prevails largely in the great manufacturing towns, notably in Glasgow, Manchester, Stockport, and Birmingham." He states that during the cotton famine in Lancashire he saw many cases in which the cruel deprivation of the accustomed stimulus involved more suffering and misery than the scarcity of food, and from this he concludes that the moderate use of the drug does not induce such marked premature decay as writers on the point would have us believe. It seems to us, too, that there is much truth in this view of the matter. Great as was the dose in which De Quincey indulged, the result was, after all, not a very serious one, and the "confessions" of the celebrated opium-eater are by no means characterised by that scientific precision which should warrant us in basing definitive opinions on them. It is certain that there are among us many immoderate(?) opium-eaters who, nevertheless, go about their duties like ordinary mortals, and appear very little the worse for their habit. We speak as to experience of the trivial nature of the effects of opium-eating in at least some cases. The vast quantity of the drug imported into this country tells its own tale. As the question stands, it is hardly unreasonable to say that our knowledge of the action of opium requires extension, and we trust that some of our readers interested in the matter may furnish us with the results of their experience of the effects of opiate preparations both on the human and animal systems.

ORGANIC MATTER IN WATER.

THE importance of the estimation of the proportion of organic matter in water can hardly be overrated by the student of hygiene. What is wanted, however, is, as we have already pointed out, a physiological method by which to distinguish one class of organic impurity from another. This has been attempted in the method devised some time since by Messrs. Wanklyn and Chapman, and whose accuracy has been called in question by Dr. Frankland. The plan of estimating the organic carbon and nitrogen of water which has just been described by Professor Frankland is exceedingly ingenious and highly elaborate, but we doubt whether, after all, it answers the purpose of the sanitarian. Dr. Frankland's method is briefly this. Sulphurous acid is used to decompose the carbonates and drive off the carbonic anhydride. The water is then evaporated *in vacuo*, and the residue is dried at a steam heat. This residue is now mixed with chromate of lead—plumbic chromate of the new terminology—and is placed in a combustion tube with oxide of copper and copper clippings. The open end of the combustion tube is connected with a Sprengel's pump, and a perfect vacuum is thus obtained. Then heat is applied, and the combustion carried out in the usual manner. Oxygen, nitrogen, and carbonic acid are given off and collected. The oxygen is absorbed by pyrogallic acid, and the carbonic acid and nitrogen are afterwards readily determined. The results obtained by this process were very remarkable, since as small a quantity as the fiftieth part of a milligramme of nitrogen was recorded in the plainest manner. Dr. Frankland has compared his results with those of Messrs. Chapman and Wanklyn, and has found his method more precise than theirs. But, as we have said, their scheme gives an approach to the physiological method, which Dr. Frankland's certainly does not.

DEATH FROM CHLORODYNE (?)—INJECTION OF TARTAR EMETIC.

THE scientific committee appointed by the Royal Medical and Chirurgical Society to investigate the physiological and therapeutical effects of the hypodermic method of injection, were rather taken to task, when their report was read before the Fellows, for not having made more numerous experiments with that important and dangerous agent, tartarised antimony, experiment 3 and experiment 2 being the only two performed. By these, however, it was shown that the minimum dose by mouth that produced death was ½ grain, which was given to a small rabbit; and that a very large strong rabbit, which resisted the fatal effects of ½ grain by the mouth, succumbed to ⅙ grain injected by the skin—in other words, that tartar emetic becomes three times more powerful and poisonous when injected hypodermically than when taken by the mouth, thus agreeing, so far as intensity of effect is concerned, with the other agents which were investigated. A case, however, which has lately been the subject of an inquest, supplements to a certain extent the deficiency in the report alluded to, and is, moreover, one involving serious considerations. S. S., aged 63, a bachelor of sedentary and literary habits, of leucophlegmatic temperament, corpulent, having a pale loose skin, a weak muscular system, in which his heart participated, and a pulse generally slow and weak, caught a cold whilst on a journey, which resulted in a swollen face and intense pain in his face and head. Although suffering much, he regu-

larly continued his official duties from the Monday until Thursday, the day previous to his death. To relieve the pain he had taken at intervals some chlorodyne, a bottle of which, with another marked opium, was found on his table by his landlady. On her visiting him on the Friday morning she then learnt from him that he had been on the sofa all night. When Medical assistance arrived he was in a drowsy state, but replied to questions; he was then cupped, and mustard cataplasms were applied to his legs, his breathing was stertorous, and the pupils of his eyes contracted. A second Medical man arrived at half-past five, who, *being afraid to use the stomach-pump, injected two grains of tartar emetic into the veins of the arm.* Cold water was also dashed over the deceased's face, after which and the injection he rallied sufficiently to recognise persons, and was able to walk and talk for a short time; he vomited a little four times. He was able to recognise people for half an hour, when he fell back and went off gradually in a state of collapse, from which he never rallied. He died at 10.30 p.m. the same evening. The questions which naturally arise in such a case are whether the narcotism, in the first place, was so complete as to render the usual remedies of stimulating emetics, such as mustard or sulphate of zinc, the use of the stomach pump, cold water, walking about, etc., useless. If not, was the temporary arousal to consciousness due to the previous treatment of mustard plasters, cupping, the administration of coffee, the dashing into face of cold water, etc.? Or was it due to the injection of such a large dose as two grains of tartar emetic? Or, lastly, did not the introduction of such a dose of tartar emetic into a body whose vital powers were already over-enfeebled by pain, want of rest, and narcotism, destroy the only chance of rallying left? A trace of chlorodyne was found in the contents of the stomach, and opium was said to have been discovered by testing. The brain was congested, but there was no extravasation of blood; the lungs were healthy, but congested; the heart and every organ of the body that was examined were found to be healthy.

SANITARY REPORT OF MADRAS FOR 1866.

We find in the recently published Report of the Sanitary Commissioner for Madras for the year 1866, that the average strength of British troops serving in that Presidency—Port Blair, Singapore, and Penang included—was 11,498. The average number of daily sick was 778·7 or 67·7 per mille. The deaths in Hospital amounted to 231, or 20 per mille of the strength; those out of Hospital were 19, or 1·5 per mille, making the total death rate of the army 21·7 per mille. The number of men invalided amounted to 645, or 56·68 per mille of strength. By far the largest number of admissions to Hospital was caused by venereal diseases, namely, 2624, or 234·7 per mille; next by intermittent fevers, 1393, or 124·6 per mille; dysentery 1212, or 108·4 per mille; continued fever and diarrhœa each 1158, or 103·5 per mille; and hepatic affections 864, or 77·2 per mille. There were only 45 admissions from cholera, or 4 per mille. The greatest mortality was from dysentery, which caused 45 deaths, or 3·9 per mille; hepatic affections 34, or 2·9 per mille; cholera 28, or 2·5 per mille; phthisis 20, or 1·7; and insolation 13, or 1·1 per mille. The highest death rate among European troops—namely, 33·6 per mille—occurred at Secunderabad, and was mainly contributed by the 18th Hussars, who were living in the old European infantry barracks, and among whom the mortality amounted to 52·5 per mille. It is intended that eventually the whole of the European troops forming the Hyderabad subsidiary force, nominally stationed at Secunderabad, shall be quartered in the new cantonment at Trimulgherry, which is distant about three miles from the old one at Secunderabad. This arrangement is being carried out as quickly as the new barracks can be completed. But meanwhile the cavalry and two batteries of artillery have had to remain in the old station. Trimulgherry is said to be on a much higher elevation than the old cantonment, and in every way superior to it in a sanitary point of view.

The Report under notice is full of varied and most interesting information respecting the sanitary condition of our troops in the Madras Presidency and in India generally. We have not space at present to enter more fully into its details, but hope from time to time to bring them under the notice of our readers. It is drawn up by the Hon. R. S. Ellis, C.B., Sanitary Commissioner for Madras, and not the least interesting portion of it is comprised in the Commissioner's remarks on the reorganisation of the Sanitary Commission, which in April, 1866, was modified in accordance with a recommendation made by the Governor-General in Council to the Secretary of State for India. It had formerly consisted of a President and four members, but now retains only the President as Sanitary Commissioner, and one member, a Medical officer, as secretary. "This change had, pending the sanction of the Secretary of State, been made as regards the Bengal Sanitary Commission. No decisive answer has been received from the Secretary of State for India regarding the future constitution of the Sanitary Commissions at each Presidency. In Bombay the Sanitary Commission has remained as originally constituted. The experience which I have had of both systems induces me to think that it is of advantage to retain at the Presidency a consultative body, such as the Sanitary Commissions were under their original organisation."

We are glad to see this important testimony to the accuracy of the opinion which we advanced in a previous number—that Bombay is in advance of the senior Presidency Bengal, as respects the constitution of its Sanitary Commission—and we hope that the decision of the Secretary of State for India may be in favour of reverting in the other two Presidencies to the original form of Sanitary Commissions, on which the senior Medical Officers of the British and Native troops, if not actually members, shall be efficiently represented by men of experience and standing of their own selection. It may be necessary for State reasons, in the present system of management of public affairs, that a body communicating with so many and diverse branches of the public service should be presided over by a civilian or military officer of high rank; but in expressing our opinion that a Medical officer, by his Professional education and training, is best qualified for the discharge of the duties of such a position, we feel assured that we are advocating the true interests of the public service, as well as those of our own Profession.

FROM ABROAD.—MEDICAL CONSULTATIONS.

Dr. Maheut, one of the Professors of the Medical School at Caen, has been delivering, before the Medical Society of Calvados, an address on "Medical Consultations," which contains some views worthy of notice. After adverting to the quiet procedures of the good old times, in which these took place chiefly between the old and young Practitioners of the same localities, he observes that things are greatly altered in the present day, when the passion, almost the mania, for going from place to place, which is a character of our times, has penetrated even to the sick, who, formerly condemned to their beds, now, owing to the facility of transport, are constantly in the habit of migrating either for change of climate or in search of advice. It results from this habit that, although "consultations" among Practitioners are not much more frequent than they were formerly, this is not the case with seeking the opinion of successive Physicians. This practice has, indeed, increased in excessive proportion, so that it has come to pass that there is no Physician, of however old date his success may be, or however elevated the position he occupies, who can now be certain of retaining to the end the exclusive confidence of his patient. Among other ill consequences of this interference of a great number of Practitioners

in advising the same patient, we may note this one—that it has become impossible to dissimulate the dangers, sometimes only remote, of a situation which is sure to be exposed by one or other of the successive advisers. Formerly we felt it a duty to avoid spreading alarm in the midst of a family, allowing it perhaps for years to enjoy its happiness of ignorance, although we ourselves trembled at seeing the thread thinning day by day which held the sword suspended over the head of one of its most cherished members—keeping our secret with the greatest care until the imminence of the catastrophe. To proceed in this way now would only be to expose oneself to the reproach of having mistaken the nature or the gravity of the disease. Whether we like it or not, we must fall in with the new habits assumed by the public, which believes them to be in its own interest, caring less than ever for our susceptibilities, and setting little count on our Professional dignity.

M. Maheut believes that advantage to the patient would accrue if the procedures usually adopted at consultations were somewhat altered. He suggests that, in place of the consultant receiving from the Practitioner already in attendance his views of the nature of the case, he should approach it quite unshackled in opinion, and himself interrogate the patient and investigate his case before hearing the history of what has already been done—the greatest care being of course taken that he express no opinion as to the nature of the case before conferring with his *confrère*. This plan seems especially indicated in cases of doubtful diagnosis. The greater sacrifice of time that it implies, at least on the first visit, may well be balanced by the greater advantage to be derived by the patient.

M. Maheut concludes his address in the following words :—

"I have no pretension to prepare a Medical code and trace out the line of conduct which the Practitioner in attendance ought to pursue on all occasions; and I will only observe that, in my opinion, here, as under many other circumstances, rectitude of conduct is also the best policy. I declare that I have never been able to comprehend the grounds of the resistance which some Practitioners oppose to the request for a consultation with an honourable *confrère*, if even such consultation have no other result than to calm the anxiety or to spare the regret of an afflicted family. And where is the man so sure of himself and so infallible as not to find a sufficient compensation for the slight derangement caused by a Medical conference in the pleasant satisfaction derived from finding his views participated in by an enlightened *confrère*, or even from receiving enlightenment on some hitherto obscure point?

"If the ordinary attendant has sacred duties which he should never forget, the mission of the consulting Practitioner is more difficult and more delicate. He is a kind of judge in appeal. His part should commence only at the moment at which he sees the patient for the first time, as he must limit his attention to the present and future, the past being no concern of his; for he is incompetent to appreciate the motives which may have induced the adoption of this or that treatment, as accidents have arisen of which he has not been a witness. I cannot find terms strong enough to stigmatise the conduct of the man who, not having been present at the origin, evolution, or course of the disease, allows himself, in a mercantile interest, to throw blame on what has been done before he was called in. I say in a mercantile interest, for the facts are all accomplished, and no benefit can accrue to the patient from this retrospective action. The consulting Practitioner is called in to co-operate for the well-being of the patient, and not to set forth dissertations on the generalities of Medical science. If I deny his right of criticising the past, I impose upon him the duty of pronouncing categorically on the present state of the patient. He is now only responsible to his conscience; and while duly observing those regards which we ought to feel for one another, there are cases in which all compromise becomes impossible. In such it would be an unjustifiable action. Either conviction must be assured, or a disagreement avowed. God be praised, one is rarely in the hard necessity of having recourse to this extremity. Between two instructed and honourable men an understanding can almost always be brought about. The obligations which are imposed on Practitioners who find themselves in the presence of the same patient are the same, if not still greater, for those who are consulted separately during the course of the treatment of a case. I should fear fatiguing your attention were I to treat so important a subject with all the development it admits of. It will suffice to say that very serious duties attach to our great Medical notabilities, especially those pursuing specialties, to whom patients resort from all parts of Europe. For the very reason that their opinions appear to have a greater value, they are required to have quite an exceptional circumspection; and we have a right to regard with severity those of them who, abusing a more or less legitimate superiority, allow themselves to express doubts as to the utility of a rational, although not efficacious treatment, in diseases of a nature essentially incurable. Nothing is more suited to bring discredit on the Medical Profession than conduct like this, which, thank God, is more and more rarely met with."

PROFESSOR HUXLEY AT THE ROYAL INSTITUTION.

"On the Animals which are most nearly intermediate between Birds and Reptiles"—this was the subject of Professor Huxley's discourse at the Royal Institution yesterday week. Professing himself to be a believer to the fullest extent in the modern doctrine of *evolution*, he commenced by considering some of the most valid objections to this theory. In the first place it was objected that, seeing we have in the present day such distinctly defined groups of animals as, for example, fishes, reptiles, and mammals, so widely and unmistakably separated from one another, if the doctrine of evolution were true, we ought to be able to discover at present existing, or in the earth's crust, some signs of the existence of intermediate forms. The answer to this is, first, that the links which connected these large groups have died out; and secondly, that our present geological record forms but an infinitely small portion of the living forms that have been—that groups of strata are constantly separated by great breaks, in which all the forms of life have been swept away, and thus we lose certain terms of progression. But these objections were, after all, only *excuses*.

Between birds and reptiles, so strikingly different in their outward aspect, there existed closer structural affinities than between any other two groups of the vertebrata. Still between all *existing* birds and all *existing* reptiles, there were strongly marked and characteristic differences of structure, and we possessed no knowledge of any existing intermediate forms. Such intermediate forms, however, *had existed*, as he should be able to show.

It would be necessary first to point out what were the most striking differences of structure between existing birds and existing reptiles; and since the *bones* only are found in the fossil state, we must confine our comparison to the *skeletons* of these two groups.

First, as to the fore limb or *pinion* of a bird; it presents a structure utterly unlike that of any reptile. Comparing it with our own hand, it has the first, second, and third fingers *only*, and the first and second only of these ever have *claws*. In no reptile is the fore limb found in that condition; it has *more* fingers and *more* claws.

In birds the three carpal bones are anchylosed. In reptiles they are free. The mode of ossification of the breast-bone in birds is very different from that in reptiles. In the *sacrum* of the bird all the constituent vertebræ (twenty to thirty) are anchylosed. In no reptile are there more than two or three fused together. The haunch bone extends *in front* of the cavity for the hip-joint in birds, as well as *backwards*. In reptiles it never extends *forwards* in this way. The ischium in birds is bent back parallel with the ilium, and is slender. In reptiles it is *broad*, and at right angles to the ilium.

Then as to the hind legs. The thigh bones of birds differ from those of reptiles in being adapted to move in a *plane parallel* to the body.

The *shin* bone of birds differs very greatly from that of reptiles, first, in presenting a prominent *crest* at its upper extremity, and, secondly, in having *half the bones of the foot united with it*. No vertebrate animal whatever has this kind of shin bone but birds.

Lastly, the three metatarsal bones in birds are anchylosed, and, if they have four toes, the fourth is always imperfect. The gap is therefore very broad between birds and reptiles; we have now to inquire if it can be bridged over.

In the *tertiary* formation all reptiles and birds preserve this gap. But in the older mesozoic formations the feather of a bird, the "archæopteryx," had been discovered, and from subsequent investigations it proved to belong to an animal the skeleton of which presents some approach to the reptilian form. It had a *long tail*. Of the metacarpal bones, two were free and movable, and it had claws. The fore limb was therefore quite as much a *paw* as a *pinion*, and combines in many particulars the paw of the reptile with the wing of a bird. But it was in the fossil remains of the *iguanodon* that he saw distinctly one of the missing links connecting birds with reptiles.

In the skeleton of this animal it was to be observed that the *fore* limb was very small and slender, compared with the *hind* one. The ilium was bird-like; the sacrum also. A bone which had been called the clavicle of the iguanodon no doubt belonged to the pelvis, either the ischium or the pubis. It is very like the ischial bone of the ostrich. No existing reptile has a bone like it. The thigh bone is constructed like a bird's, and utterly unlike a reptile's. The *shin* bone, if seen alone, might at once be pronounced a bird's.

The foot has only three toes, and is more like that of a bird than that of any living reptile.

It is curious to inquire how this animal walked, with such a small fore limb, and such large hind limbs. The fore limb could not have supported any weight; it is therefore probable that the iguanodon walked on the toes of the hind legs—in short, that, like a bird, it walked on *two* legs. This supposition had been strengthened by the discovery of certain fossil foot-prints, such as might have been made by this animal, and these were found only *in pairs*, no impressions of *fore* paws. There had been discovered since the iguanodon another fossil, and it was remarkable that only a *single* example had been found, proving how certainly true it is that whole groups of animals must have been *entirely*, or almost entirely, swept away; this animal had a *long neck*, *bent back* on the body, the back short and light, pelvis long and bird-like, and a *long tail*. Fore limb still smaller and lighter than in iguanodon.

In the hind limb the thigh is shorter than the shin, and the shin shows that bird-like conformation of the adherence of half the ankle-bones to it. It is in every respect a bird's tibia.

It also possesses a bird's foot, except that the metatarsal bones are not completely united. This supplies what was wanted in the iguanodon. The step from this to the bird's structure is easy and simple, and the more one goes back in time the more transitional forms to bridge over the existing gap between birds and reptiles will probably be found.

ABSTRACT OF THE LETTSOMIAN LECTURES

ON THE

DIAGNOSIS OF LUNG DISEASE IN CHILDREN.

By GEORGE BUCHANAN, M.D., F.R.C.P.,
Physician to the Children's Hospital, etc.

Lecture I.

Mr. President and Gentlemen,—It is not possible for me within the compass of three lectures to treat systematically of a subject so wide as the lung-diseases of children, nor is it necessary that I should attempt any complete account of them to an audience that has examples of such diseases under its daily observation. My object will be rather to present to your consideration some of the difficulties that encounter the Practitioner at the bedside—first, in regard of the recognition, and, secondly, as to the management of these disorders in the period of infancy and childhood. I propose this evening to deal with some points in the diagnosis and treatment of the *tuberculous* group of lung-diseases in children.

As evidence of the difficulty that attends the investigation of these complaints, I may state that in a single case-book of mine at the Children's Hospital, for 203 cases in which we believed that we definitely recognised consumption in the lungs, there were 45 cases in which, on a first examination, a certain diagnosis could not be made; and a very experienced and conscientious clinical assistant of the Hospital has recorded his opinion of the difficulty by setting a query against two-thirds of the cases in which he believed tubercle to be present. And I may appeal to the experience of my hearers whether they do not constantly find themselves unprepared with a positive answer to the anxious question, "Do you think the child is consumptive?"

Among the signs that have value in the phthisis of grown people, but which are absent or of equivocal signification in the child, are firstly to be mentioned the whole class of subjective sensations of which little or no account is rendered by the child; secondly, it is only in older children that expectoration of any sort is presented for our examination, and hæmoptysis, one of the first symptoms for which we inquire in the adult, is rare in children. Of the 203 cases I have mentioned, only two had spat blood at the time they came under observation. Thirdly, owing to the more acute course of the disease in early life, those symptoms which indicate softening and cavity of the lung are seldom met with. Perhaps it is for the same reason that night-sweats are uncommon in the phthisis of infancy. Next, the results of physical examination of the chest are frequently equivocal and obscure. Flattening of the chest is only noticed in the rare cases where cavity is formed, or where the lung has become adherent to the wall of the thorax. Auscultation gives but few, and—in cases of early or rapid phthisis—only uncertain results. The most reliable evidence it affords is feebleness of respiratory murmur, with more or less coarseness of sound up to actual bronchial breathing; but even this is apt to be closely simulated by echo from the child's throat. Prolonged expiration is seldom observed, but notable division of the inspiratory sound is more common. Yet the disease may be considerably advanced, and be even threatening speedy death, without other auscultatory signs of it than rhonchus more or less coarse, which would be quite explicable by bronchitis alone. Percussion, though giving more important evidence of the state of the lung, is exposed to many sources of error from which the use of this means in the adult is exempt. Unless the child be in a quite symmetrical position, without constraint of either side, it is impossible to get any valid result from percussion. At one moment the left side seems duller than the right, at another the right is duller than the left, just as the one or the other side of the chest is prevented by position from expanding so thoroughly as its fellow. In the same way, unless the two sides of the chest be examined at the same stage of the respiratory act, the results of their percussion are absolutely incomparable. There is a large class of cases in which we can establish that the essential disease is a lung affection, but where, nevertheless, we have the greatest possible difficulty in affirming or denying its tuberculous nature. It is to lobular pneumonia, and to inflammatory consolidation of the upper lobe of the lung, that this difficulty principally has reference; and it must be allowed that clinical and pathological considerations alike forbid us, in certain cases, to come to any positive conclusion on the question, even during the entire course of the disease. I shall briefly speak of what is known and believed to be known concerning the methods of coming to a decision between these lung diseases and tubercular phthisis, reserving fuller consideration of certain points until my lecture on pneumonia and on bronchitis, with their incidents.

Lobar pneumonia in children makes exception to its ordinary definite and rapid course when the upper lobe of the lung is attacked by the disease. The exudation is then much more slowly deposited, and is also much more slowly removed; and the febrile symptoms are out of proportion, in severity and duration, to the degree of local mischief. Now, in the adult, in confessing the difficulty of separating apex-consolidation by such pneumonia from the consolidation of tubercle, we should say that the point was not of much practical moment, inasmuch as in the adult pneumonia of the upper lobe is in all probability itself of tuberculous nature. But this rule does not so certainly hold good in children; for in the young child pneumonia may have its seat in the upper lobe, without any suggestion, either in family history or in previous health, of any scrofulous or tuberculous tendency. And the disease may absolutely, though certainly slowly, pass away, and leave no physical evidence of consolidation behind—a fact which, in the minds of most pathologists, appears to be conclusive as to its non-tuberculous character. But observe how physical examination may give absolutely no assistance in determining the nature of the solidification in the lung. Intense dulness over the upper lobe, increased vocal fremitus, strong bronchophony and loud bronchial breathing—signs which merely tell that we have a solid instead of an air-holding tissue in question—tell nothing of the nature of the process by which the consolidation has been brought about. And it may be that the general signs convey no more decisive information. The severe cough, the great restlessness, the rapid emaciation, and protracted course of pneumonia of the upper lobe, are equally

present in tuberculous consolidation. But there are other cases where an opinion between the two diseases may be arrived at. Such complete consolidation of the upper lobe from tubercle will only come from the infiltrated form of the deposit, which is less common by far than the miliary sort, that gives less dulness, less bronchial respiration, and altogether slighter physical signs. Then, again, tubercular consolidation probably exhibits less definite commencement of symptoms, and has been preceded by loss of appetite, emaciation, and feverishness for some weeks or months. And of great importance, though not of conclusive significance, in diagnosing tubercle under such circumstances, is the presence or absence of the diathesis in other members of the family. I need hardly add, that the existence in other parts of the body of disease definitely ascribable to tubercle settles the diagnosis for all practical purposes. But the attention of the Profession has recently been directed by Ziemssen of Greifswald to the means of distinction that are afforded by the thermometer. He finds that in lobar pneumonia, even of the apex, he gets a higher degree of febrile heat, and a smaller range of fluctuation between morning and evening temperature, than he observes in consolidation from tubercle; and his observations, very carefully conducted and recorded, point, therefore, to an element of diagnosis that should be used in the cases where other distinctions fail us, though it must be confessed that the method of examination by the thermometer in the rectum observed at regular times of each morning and evening—for except in this way no valid results were got—is not the best suited for every-day private practice.

Lecture II.

Of the whole number of illnesses with which young children are brought to us, at least one-sixth are examples of catarrhal diseases of the lungs; and of the causes of death that carry off children under five years of age, almost that same proportion may be primarily referred to these diseases, to say nothing of the numerous instances where they are fatal as complications of other acute complaints.

The light in which I regarded the diagnosis of phthisis in the child was altogether such as we may get at the bedside. I shall ask you to regard the phenomena of bronchitis and its consequences to some extent in the light of the post-mortem room.

Even slight degrees of infantile bronchitis are apt to be accompanied by much pyrexia, not seldom by raucous cough, and occasionally by convulsions. But when the smaller bronchia are affected the course of the disease often resembles that rarer and very fatal form in the adult that we know as suffocative bronchitis, the symptoms of which are largely due to imperfect aeration of the blood. What with an adult is uncommon is with infants a very frequent course; a child who only yesterday was in perfect health is found with great dyspnœa, breathing sixty to eighty times in the minute, with pale, anxious countenance, flapping nares, and a restlessness that comes of the attempt to force a new and again a new set of muscles into the service of inspiration.

The form of bronchitis with collapse is most markedly seen in children who are rickety, and when the lung disease occurs in the course of hooping-cough.

The mechanism by which this collapse is brought about appears to be this:—A small bronchus gets its calibre reduced by the swelling of its mucous membrane and the exudation of secretion into it. The action of inspiration allows of no air passing through the obstructed tube, but drives the plug of mucus further and further towards the air-cells. Expiratory efforts, on the other hand, especially those of paroxysmal cough, partly because they are stronger, partly because they act from the smaller end of the tapering tube, do allow the escape of some of the air included in the pulmonary vesicles behind the affected bronchus, and thus the lobule by degrees gets empty.

Collapse, brought about in this manner by the thickening and plugging of the bronchia, may affect separate lobules, or a congeries of lobules, according as several small tubes are separately affected or a single larger one gets impervious. In the diffused form of collapse the dulness on percussion is of course slighter than when many contiguous lobuli get solidified, and bronchial respiration and bronchophony are also less marked. It is collapse due to plugging of a bronchus of some size that comes to give the closest resemblance to pneumonia, and it may even give physical signs difficult of distinction from those of lobular pneumonia.

Lobular pneumonia is always a secondary disease, either to those specific disorders which are accompanied by bronchitis almost as one of their elements (in which rank measles and hooping-cough stand obviously first), or to bronchitis of a primary kind. So far as careful post-mortem observation permits a generalisation to be made, the course of the disease is invariably through the occurrence of collapse.

On the supervention of lobular pneumonia, it is said that the evidences of lessened volume of the thoracic cavity get less marked. In the second place, the occurrence of inflammatory infiltration of the lobules may be presumed from extension of the dulness, of the bronchial respiration, and of the mucous râles, and by the increased intensity of vocal fremitus and bronchophony (upon which Ziemssen lays chief stress if an increase in it can be established) over the affected parts; and along with this physical evidence, increase of fever particularly towards night. And generally there is a probability that collapse, after it has been established for two or three days, passes on to the subsequent inflammatory stages.

REVIEWS.

Du Mouvement dans les Fonctions de la Vie. Leçons faites au Collége de France par E. J. Marey, Professeur Suppléant au Collége de France. Paris: Baillière. 1868. Pp. 479.

In 1863 Professor Marey published a work, entitled "La Physiologie Médicale de la Circulation du Sang," in which he introduced into France the application of the *graphic method* to the study of biology.

The present work represents the results of the continuation of M. Marey's laborious investigations in the same direction. Believing, as he professes to do, that this method is the best that can be employed in most physiological researches, and that by its adoption "the tediousness of description, the confusion of facts, and the illusions of observers will disappear," he has been busy during the last few years in constructing new forms of apparatus and in correcting and improving those which we already possessed.

The fruits of these labours are contained in the book before us. The first two chapters are devoted to a general consideration of the "evolution" of the natural sciences, the methods adopted in their study, and the immense and almost indispensable assistance to be derived from the use of "instruments" and "experimental apparatus" in biological pursuits. No one will be disposed to contest M. Marey's statement that "of all the phenomena which characterise life, *movement* is the most important," and that it is "by *movement* that all *vital* functions are distinguished."

It is the object of the graphic method to analyse all these movements in respect to their *extent*, *duration*, *force*, and *form*. This last—viz., the graphical process which discovers the *form* of a movement—gives a more complete conception of its character than any other, because it takes cognisance of the different phases of that movement, not only at its commencement and at its termination, or at its maximum or minimum, but in all its intermediate states.

The application, then, of the graphic method to the study of biology represents a further effort on the part of certain philosophers of the present day to bring all the so-called *vital* operations under the influence of the laws which regulate physical and chemical phenomena. In the last paragraph of the second chapter, Professor Marey writes thus:—

"We are compelled, if we would be logical, to apply physical and chemical methods to the study of the phenomena of life; and it is only after we have employed all these processes without arriving at any fruitful result that we have the right to invoke the existence of extra-physical causes in order to explain vital phenomena. We shall see as we go on how very far we still are from having exhausted all the resources which physical and chemical analysis at the present day place at our disposal" (p. 39).

The third chapter is devoted to the consideration of the applicability of the *synthetic* method to the study of biology. Our author shows how, by means of various ingeniously devised "*schémas*," many important vital functions may be synthetically imitated—as, for example, the mechanism of respiration; the action of the intercostal muscles; the phenomena of the circulation of the blood; the action of the heart, its impulse; the action of the arteries; the influence of their elasticity. For figures and descriptions of all these apparatus, some of which are already familiar to physiologists, we must refer our readers to the work itself.

M. Marey, referring to the objections made by the "*vitalists*," that "in living beings there are certain so-called *vital* properties which are altogether peculiar to them, and that, although certain phenomena which *accompany* life may be reproduced synthetically, yet that the truly *vital* phenomena cannot be thus imitated," replies—"For my own part, I know of *no vital phenomena*; I can only recognise *two* kinds of manifestations of life—those which are *intelligible* to us, and which all come under the range of physics or chemistry, and those which are *unintelligible*. As to the latter, it is better to avow our ignorance of them than to disguise it behind a pretence at explanation."

We must here confess that we cannot fully share M. Marey's enthusiastic and confident belief that *all* vital phenomena will some day or other be reduced to the same form of expression as those of physics and chemistry. We believe that there will always exist associated with *life* phenomena which physicists will never be able to measure or chemists to analyse, and we have met with nothing in the volume which we are now reviewing to convince us to the contrary. However, having stated our own opinion, we will give M. Marey the opportunity of stating and supporting his. After mentioning and discussing five "laws of muscular contraction," which we shall not reproduce here, as they are familiar to all physiologists, he proceeds to make the following statement:—"I think we need not despair of seeing a rigorous mathematical method introduced into the study of biology. If the numerical relations between the phenomena of life and the influences which regulate them are not yet, in most cases, capable of realisation, it is only on account of the extreme complexity of the conditions of these phenomena and the imperfection of the means at our disposal for measuring them. We know that in astronomy the multiplicity of the influences which accelerate or retard the movements of certain stars render the rigorous calculation of the perturbations they must undergo and the prediction of the exact position they will occupy at some distant period nearly impossible. Yet no one doubts that the movements of these stars may be submitted absolutely to calculation. In biology we are still too far off from the end we would reach to desire to impose our belief on those who prefer to doubt. In certain points, however, we can prove the existence of numerical relations between the intensity of a cause and that of its effect. If, for example, we produce electric currents of an intensity increasing according to regular progression, we observe that the contractions provoked by these currents in the muscles of an animal present an intensity which increases in exactly the same proportion. But we were not able to establish this exact relation until in physical science we possessed the means of graduating rigorously the electrical excitement, and in biology of measuring with exactitude the intensity of muscular contraction. We may, therefore, hope that precision in our methods of study will lead to the discovery of precise laws which our actual means of investigation do not permit us to perceive." (P. 79.)

We shall not follow M. Marey through his elaborate description of the various instruments and apparatus employed in the application of the graphic method to the purposes of physics and biology, more especially as our readers will have the advantage of clear and condensed descriptions of the principal results which have been arrived at in the articles on this subject which have already been commenced in this Journal.

These instruments and their applications are very numerous. We shall content ourselves, at present, with enumerating some of them.

Sheets of paper ruled into small squares are the simplest. They are used for various purposes, such as (*a*) tracing the variations in the intensity of an epidemic, (*b*) the variations of temperature in disease, (*c*) the frequency of the pulse and respiration, (*d*) the varying intensity of sounds, (*e*) the solubility of salts, etc.

Then we have instruments for registering graphically the laws of falling bodies, meteorological phenomena, vibrations of sounding bodies. Some of these instruments have received characteristic names. For example, we have—

A Chronograph, for measuring with exactitude the precise duration of any phenomena.

The *Kymographion* of Ludwig, an apparatus for registering graphically the oscillations of the column of mercury in the well-known manometer of M. Poisseule for measuring the pressure of the blood in the blood-vessels.

The *Myograph*, invented by Helmholtz, expresses graphically the form of muscular movement.

The *Sphygmograph*, invented by Vierordt, is now a tolerably familiar instrument.

The *Cardiograph* (p. 141), invented by M. Marey to throw light on the movements of the heart. It registers at the same time, by means of three levers, (1) the systole of the auricles, (2) that of the ventricles, and (3) the instant of the shock or pulsation of the heart.

The *Polygraph* (p. 150), for registering the movement of different functions, at the same time, for purposes of comparison.

The *Hæmodromograph* (p. 159), an instrument devised for measuring the variations in the swiftness of the current, and of the pressure of the blood in the blood-vessels.

The *Pneumograph* (p. 163) is an instrument for registering the respiratory movement.

The *Thermograph* (p. 172) registers the variations of temperature, and has this great superiority over our ordinary thermometers—that it enables us to follow with precision the variations which occur, at each instant, in the temperature of one or more parts of the body of an animal. All these, and some others, are fully described and illustrated by excellent plates in Professor Marey's work.

With the eleventh chapter the second part of this book may be said to commence, the first part, which we have already reviewed, having been devoted to preliminary considerations, and to the description of the instruments used in the analysis of movements by the graphic method.

This chapter treats of the "Origin of Movement," and starts with the statement made by Cl. Bernard, that "muscular movement constitutes the principal function of animal life, and consequently the muscular system is the centre of the phenomena manifested by living beings." This truth is enforced by reference to the fact that *sensibility*—a function not less important to the animal than that of motion—is only revealed to the observer by the reaction of the muscles, and in the functions of special sense the aid of muscular movement is needed for their perfect operation. In the sense of touch, the *movement* of the fingers is necessary to make the sensation complete, and supply us with a notion of the form and consistence of the object we are feeling. The sense of hearing is assisted by a motor apparatus—viz., the small muscles of the internal ear, which act on the chain of ossicles connected with the membrana tympani. The eye is directed to surrounding objects by the aid of *muscles*, and by the operation of a muscular apparatus in its interior adapts itself to the vision of objects at various distances; so that the power of motility intervenes, in varying degrees, in all the functions of the organism. As to the origin and nature of movement, physiologists and histologists have been baffled in their attempts to trace the "*origin*" of "*movement*" or of "contractility" to one single constant anatomical element in the tissues by which this function is manifested. Microscopic observation shows the existence of the power of contraction in tissues which are perfectly *amorphous*, as well as in those that are highly organised. Many of the lower animals—the Medusæ, for example—are eminently contractile, but no special tissue, such as is the seat of contractile power in the higher animals, can be found in them. The Amœbæ also seem composed of a contractile material, in virtue of which they are capable of assuming the most irregular and varied forms, yet the highest powers of the microscope can discover no trace of organised tissue in them. The vibratile cilia of certain epithelial cells, though they present a more advanced organisation, show nothing in their transparent tissue which will explain the production of the movements which animate them. Equally difficult is it to explain the movements of the spermatozoa.

But this contractile material, notwithstanding its different forms, is similarly affected by physical and chemical agents. Thus, heat stimulates its contractility, cold diminishes it. The action of alkalies favours it, that of acids destroys it. It has therefore been supposed that the endowment of contractility resides in a substance chemically the same in all cases, but appearing under different aspects. In opposition to this supposition is the fact that the chemical composition of one muscle will vary with that of another, within certain limits—inosite, for example, is found in the muscles of the heart, while it is wanting in most other muscles. M. Marey is therefore obliged to leave the discussion of the "origin of movement" very much as he found it—unexplained, perhaps inexplicable.

M. Marey presents us with a theory to explain the *nature* of the act of *voluntary* muscular contraction, which we will give, as nearly as we can, in his own words:—"In biological experi-

ments, when we operate on nerves or muscles by means of electricity, we ordinarily remark that the movement obtained differs notably from that which characterises natural muscular action. A discharge of static electricity, an induced current, the opening or the rupture of a voltaic circuit, or mechanical irritation, all produce in the muscle a sudden violent shock (*une secousse brusque, violente*), which does not in the least resemble the *gradual* character and *duration* of voluntary movements. Indeed, everything seems to prove that true contraction consists of a series, more or less prolonged, of these convulsions or shocks (*convulsions ou secousses*) which a single excitation produces; these are to a contraction what a single oscillation of a tense cord is to a sound properly so called. Thus, as a sound requires for its production a series of vibrations of a certain frequency, so also a prolonged contraction is made up of a series of shocks. This view may be supported in two different ways. On the one hand, the analysis of the sound produced by muscles when they contract leads us to conclude that the contraction is accompanied by frequent vibrations or convulsions (*secousses*) of the muscular tissue; on the other hand, when biologists, by synthetical experiments, have provoked in a muscle a series of shocks (*secousses*) succeeding one another with sufficient frequency, the muscle appears to pass into a state of permanent contraction analogous to tetanus."

He subsequently shows, by means of experiments furnished by the application of the graphic method, that the tetanus produced by electricity, by irritation of nerves, by chemical agents, by strychnine and other poisons, may be demonstrated to be produced by a veritable *fusion of these shocks* (*fusion des secousses*) when they succeed one another with sufficient frequency, so that the vibrations, each of which is produced by a distinct excitation, are made to disappear entirely, and a permanent shortening of the muscle is produced, which is, in fact, the condition to which we apply the term tetanus. By means of this theory, supported by a vast number of experiments derived from the application of myography to the various conditions of muscles in different phases of contraction, he proposes to explain and analyse the majority of influences which act on muscular tissue—viz., the different biological and physical conditions, the action of different organic and animal poisons, etc., etc. For a full development and description of the methods by which this is to be accomplished, we must refer our readers to the book itself.

In this part of the work M. Marey complains, very justly, of the want of some understanding between the different experimenters who are working at this method. Instead of each one using a different apparatus of his own construction, it would be much better that they should all agree to employ the same instruments, by which means they would be enabled to compare the various indications which they have obtained and give greater value and authority to their deductions. The absence of some such understanding vitiates greatly the influence of the results that have been obtained by different observers.

In the chapter on muscular contractility nothing that is new is put forth, either as to the minute structure of voluntary muscle or as to the microscopic appearances observed during the act of contraction. The account given by Bowman some years ago as to the structure of striped muscle, and which was subsequently supported by the observations of Brücke, is unreservedly adopted. The statement of Brücke that in certain fibres of so-called *smooth* muscle a striation analogous to that observed in the fibres of voluntary muscle, though *much finer*, may be seen with very high powers, is sanctioned by the author. He also narrates an interesting circumstance which occurred to Kühne when he was investigating the anatomy of striped muscle; it gives weight to that observer's conclusion that the "sarcous elements" of Bowman are probably the *only solid contents* of the muscular fibre, the rest being liquid, and lodged in the delicate but sufficiently resisting membrane, the sarcolemma. It was by a happy chance that he was enabled to recognise this peculiarity in the structure of striped muscle. He was observing the muscles of a frog under the microscope, when he noticed that a parasitic worm had introduced itself into the interior of the muscular fibre. He noticed that the worm moved about in it freely, as if in a semi-fluid substance, pushing before it the "discs" of sarcous particles, which were first extended in a conical form, and then allowed the worm to burst through them easily; while in the wake of the animal the discs recovered their plane form, and closed in more or less regularly. At the end of a certain time the contents of the fibre coagulated, and the worm could not continue its wandering course, the muscular substance having become too compact; but it then settled itself between the sarcolemma and the sarcous contents of the tube, which it appeared to separate one from the other.

It is remarkable to observe the facility with which the graphic method lends itself to the investigation of all the phases of muscular contraction, and how accurately they can by this means be measured. Figures may be traced graphically by means of apparatus described in this work which define and measure all the following phenomena associated with muscular movement:—

1. The passage of the *wave* of contraction, and its swiftness; 2. The changes produced in muscle under nervous stimulation; 3. The elasticity of muscle; 4. The influence of artificial excitants on muscle; 5. The effect of various electrical apparatus; 6. The measurement of the amplitude, duration, and form of the muscular shock (*secousse musculaire*); 7. The effects of heat and cold on the muscular shock; 8. Characters of this shock in the different muscles of the same animal; and 9. The variations in the muscular shock in different species of animals.

This last result opens up an interesting study to the comparative biologist—viz., to follow out in the different types of the animal series the study of the movements produced by homologous muscles. Our author believes that it will be found that there exist variations in the functions just as in the anatomical characters of the organs. He has been able to prove this in some instances. A muscle of the tortoise, recently separated from the animal, and placed in the bite of the myographic forceps, when excited, gave an outline very remarkable for the *long duration* of the convulsions (*secousses*) and the *slowness* of all its phases. The same experiment in a bird produced extremely brief shocks, fifty to sixty times as swift as those of the tortoise. Fishes also gave very brief shocks, though less rapid than birds. The crustacea furnished shocks of very unequal duration. The mammalia appeared to present a shock more rapid than cold-blooded animals, except fishes, intermediate between fishes and batrachia.

Another remarkable circumstance is the extreme variability of the shock in the same individual, according to the conditions under which it is observed. The marmot, in a state of torpor, gave a shock as long as that of the tortoise in summer. The same marmot, as it became gradually aroused during the experiment, gave shocks which became shorter and shorter.

The concluding chapters of this most interesting and valuable work are devoted to the consideration of tetanus. Starting with the fact that a state analogous to tetanus may be produced in a muscle by interrupted currents frequently repeated, he proceeds to show that it is due to the graphic method that we are enabled to demonstrate the manner in which this tetanic condition is produced, the fundamental phenomena of which, as we have before seen, M. Marey calls the *fusion of shocks* (*fusion des secousses*), and this he considers the essential cause of tetanus. By means of the myograph of M. Marey (an improvement on that of Helmholtz), it is easy to show that this *fusion of shocks* does not begin to show itself till the excitations follow one another with such rapidity that each shock has not time to produce its full effect before it is followed by another, and the more frequent and the greater the shocks are, the more complete is their fusion, and the more perfect, therefore, is the tetanic state developed.

For a full description of the experiments by which these doctrines on the nature of tetanus are supported, we must refer to the work itself, and to the illustrative plates which are freely scattered through the text, without which, indeed, it would be impossible to make any description intelligible. Traumatic tetanus, tetanus produced by heat, by chemical agents, and by various poisons, can also be analysed by the application of myography. In the case of poisoning by strychnine, the slow absorption of the poison enables the observer to follow all the phases by which the reflex actions, becoming more and more exaggerated, reach the maximum, and then, from exhaustion, become gradually extinct.

Towards the end of the book, the author describes some improvements he has made on Helmholtz's method of measuring the velocity of the transmission of nervous influence. He shows that the graphic method is the one which attains the desired result with the greatest accuracy, and, at the same time, with the greatest simplicity. He proposes to consider the application of the graphic method to this division of biological study at some future period. We shall welcome most heartily any further contribution to so interesting a method of

physiological research from so ingenious an experimenter and so conscientious and painstaking an observer.

M. Marey, in exposing the actual state of the graphic method at this moment, has doubtless shown that its domain is far more extensive than we might at first sight be inclined to believe, and that where this method is applicable, it affords a most perfect expression of those biological phenomena of which it takes cognisance. We quite agree with M. Marey that it is the duty of biologists to endeavour to extend more and more its application.

GENERAL CORRESPONDENCE.

MORTALITY IN LYING-IN HOSPITALS.

LETTER FROM DR. LOMBE ATTHILL.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the article on Lying-in Hospitals, which appeared in the last number of the *Medical Times and Gazette*, you say that the argument of those who urge that in considering this question regard should be had not only to the deaths from puerperal fever, but also to the lives saved in difficult and complicated labour by the superior advantages afforded in a Lying-in Hospital, is fallacious, because it "assumes that certain cases admitted into Lying-in Hospitals would certainly have ended fatally if they had been attended in their own homes." I think it right to say, as my pamphlet is alluded to, that no such inference can be drawn from any part of it. I simply endeavour to show that many lives are annually saved in a well-conducted Hospital which would be lost had it not been for the advantages afforded by such an institution; and I think the truth of this proposition must be admitted, since I prove from reliable statistics that the mortality under the four great heads of "Unavoidable Hæmorrhage," "Accidental Hæmorrhage," "Convulsions," and "Presentations of the Upper Extremity," is one half less in the Dublin Lying-in Hospital than it was under other circumstances—the statistics I quote being in the latter case not only those of extern maternities, but of private practice also; and this, though in the returns of the Lying-in Hospital are included many cases brought into Hospital in a moribund state. You say: "Again, so long as there is no selection of cases made by Lying-in Hospitals, it is fairly presumable that no greater proportion of bad cases occurs in these institutions than in the homes of the poor." This is erroneous. Though no case is refused admittance, a very large number are brought in simply because they are bad cases, and in my pamphlet I show that out of 228 cases quoted twenty-six were brought in for this reason alone. Finally, I asserted that the prevalence of puerperal fever in Lying-in Hospitals was not due to the mere aggregation of lying-in women, but to other and preventible causes. If I am wrong in this, I shall be glad to learn how it is that in one septennial period 229 deaths occurred out of 10,782 deliveries, while in another septennial period but 309 deaths took place out of 23,365 cases delivered within the same walls. I do not think that the closure of the Nightingale Wards is of much weight—the fact being that it was a grave error ever to have opened them under the same roof with wards likely to contain cases of erysipelas and other diseases of an infectious nature well known to be liable to originate puerperal fever. I am, &c. LOMBE ATTHILL, M.D.

11, Upper Merrion-street, Dublin.

SYPHILIS AND STRUMA.

LETTER FROM MR. FURNEAUX JORDAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your number of January 18, "Nemo" considers that because monkeys die from phthisis when confined in limited numbers in this country (a similar result would probably follow under similar circumstances in their own country), it is impossible that phthisis in man can be syphilitic. "Nemo" errs this wise: he argues from the more or less unknown (monkey pathology) to the more or less known (human pathology).

We know nothing of the character or antecedents of the pulmonary disease, nothing of the genital diseases, nothing of the constitutional changes, which occur in monkeys when confined in small companies or when at large. We do not know that phthisis is not a syphilitic disease in the monkey. We do know that monkeys are very susceptible to syphilitic inoculation. Some experiments that were made a few years ago on this point resulted, unless my memory greatly errs, in phthisis. Whatever man's origin may have been, whether by a sudden special creation, or by a gradual development from the monkey, he became subject to syphilis. If syphilis can be originated once, it can be originated twice or a hundred times, if the original conditions are repeated. If certain conditions are present, may not syphilis arise in monkeys? I have just been informed, and since the foregoing sentences were written, that monkeys are subject to syphilitic disease of the genitals. If, then, clinical observation can show that phthisis is constantly associated with syphilis, acquired or inherited, in man, it is more reasonable to conclude that phthisis in the monkey is a manifestation of syphilis than that phthisis in man is not syphilitic because phthisis occurs in the monkey. I am, &c. FURNEAUX JORDAN.

THE FIELD FOR PRACTICE IN THE SPANISH WEST INDIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read with no small surprise the remarks made by your correspondent, who signs himself "Author of a Steam Trip to the Tropics," in reply to my "Hints to Young Physicians on the Field for Practice in the Spanish West Indies."

He sets out by informing the reader that he has personally visited these countries, and, as a result of observations made there, he sums up his advice, addressed to those who might be tempted to cross the Rubicon, in the language of the illustrious *Punch*—"Don't." I fully appreciate the sincerity of the motive which has influenced your correspondent in giving such advice, but I must beg to differ with him completely; and I believe that if, instead of a "steam trip," he had made a more prolonged visit to Cuba or Havanah, he would agree with me that the very objections he makes, and the reasons he assigns, as being obstacles to the success of a young Practitioner, are precisely such as, well considered, should induce and determine him to pay a professional visit to the Spanish island of Cuba.

Your correspondent states that Havanah is most unhealthy, and that yellow fever, or "vomito prieto," as he terms it (although nine times out of ten some of the worst cases of yellow fever are unattended with black vomit), always prevails there, decimating the population, etc. Now, foreigners and English merchants, who attend carefully to the laws of health, manage to live perfectly well in Cuba; and as to yellow fever, it is not more prevalent than in St. Thomas's. Its ravages are principally confined to the shipping in the harbour, seldom extending beyond, far less decimating the population.

He also objects to Havanah, as being frightfully dear and expensive. Now an expensive city, where money circulates abundantly and is freely spent, is exactly the place for an active economical Medical man. No doubt your correspondent, when he made his "steam trip," put up at a first-rate hotel, had a good balance at his banker's, etc.; but surely our Medical friend would not be expected to remain a longer time in an hotel than might be necessary to enable him to procure convenient apartments. He goes to Havanah, not to "*vivre en garçon*," with all the appliances of a fast young man, but he goes to "*vivre en médecin*," to distinguish himself by his skill and activity, and to save all the money he can.

Had he taken the trouble to read my "Hints," etc., he would have noticed that I especially mentioned the necessity of passing an examination conducted in the Spanish language. By a man acquainted with Latin and French, a knowledge of the language is with less difficulty acquired; a mere jabbering superficial knowledge will not be sufficient—but to a man of education this is no obstacle.

Your correspondent assures us that he would hesitate before entrusting his own life, or that of his own friends, to a newly-arrived Doctor. I most certainly would hesitate too, under the circumstances; but, fortunately for our Medical friend, the Spaniard does not think as we do. Accustomed, as your correspondent acknowledges, to remunerate Professional services in a princely style, he is fond of novelty, entertains a high opinion of the capabilities of an English Physician, and is sure to consult him on his commencing practice, and, as I said in a former paper, should his practice be successful, he will make money.

Your correspondent appears to ignore the fact that the staple produce of the Spanish West Indies is derived from its sugar plantations worked by a slave population. The exports derived from coffee plantations and the working of mines are comparatively insignificant, and never to be taken into calculation by a Medical man in his estimate of the resources the country affords him. Your correspondent wishes to impress upon us, what everybody knows, that "slavery is here the order of the day," that the slave population is here discontented and disposed to rebel. This is an old story, yet it is difficult to imagine a rising of blacks effective when guarded against by twenty or thirty thousand well-disciplined troops. Now, the existence of a slave population is a great source of emolument to a Medical man; as, independent of his private practice, he can generally make a contract with the owners of some neighbouring estate for a weekly attendance upon the slaves.

I quite agree with the author of a "Steam Trip to the Tropics," that many other islands in the West Indies are far more healthy, and perhaps more agreeable, than the islands of Cuba, etc.; but what I beg to maintain is, that in none is the skill of a Physician more highly appreciated, or more amply remunerated, than in the Spanish West Indies.

I am, &c. MEDICUS.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 28, 1868.

MR. SAMUEL SOLLY, F.R.S., President, in the Chair.

THE PRESIDENT communicated a paper, by Mr. J. B. MARTIN, describing a case of

RECOVERY AFTER SUPPOSED PARTIAL DISLOCATION OF THE NECK,

caused by the blow of a falling barn door. Emily M., aged 24, nurse, a stout, healthy country girl, of active habits and intelligence beyond the average of her class of life. Returned home on the evening of Monday, July 29, with the children under her charge, between eight and nine o'clock, and having placed the little pony-chaise they had been using away in the barn, was in the act of closing the doors, when she perceived the left-hand door was falling, and likely to crush one of the children. She beat the child back with her hand, but before she could escape herself, the door (an oak one, 11 ft. high, by 5 ft. 4 in. in width, weighing 480 lbs) fell, striking her on the side of the head, and carrying her with it to the ground, where it rested upon her. She was stunned at the time, but soon recovered her recollection. On assistance arriving, and the door being removed, she was totally unable to raise herself, being numbed all over, completely paralysed, and suffering from difficulty of breathing. When raised from the ground, it was observed that her head was bent forward, and slightly to the left side; and although herself aware of this, when told to lift it up, she had no power to do so. A chair having been procured, she was placed in it, and upon her fellow-servant endeavouring to raise her head for her, she felt and heard something go into its place with a snap, soon after which she so far recovered herself as to move with assistance, though with great difficulty, into the house, when she became faint, and vomited slightly, but was able after a short interval to retire upstairs to her bed. The faintness and nausea continued more or less during the night, with pain in the head and neck, and inability to move without assistance. The recumbent position was so painful that, with the help of her fellow-servant, she was moved into an arm-chair, where the head was supported by pillows, affording great relief. She was seen for the first time about noon the following day. The countenance was pale, the expression somewhat stolid, and the features were swollen. She complained of pain in the head and neck, but what was most noticable was a feeling of alarm lest the head should be moved. The surface of the head and neck, especially on the right side beneath the angle of the jaw, was morbidly sensitive, and there was a dread of even a hair being pulled. She was perfectly conscious, and, though exposed to a very strong light, there was no intolerance; the pupils were natural; the skin soft and cool; pulse 84, soft and regular; numbness of the right hand and arm, with partial inability to move them; slight ptosis of the right eyelid; difficulty in opening the mouth, being only able to protrude the tip of the tongue; could only swallow liquids. To be kept perfectly quiet; the head and neck to be well supported; the hair to be removed, except just in front; to apply an evaporating lotion to the head, and fomentation to the neck by means of spongio-piline. When seen again towards the evening, she was rather more comfortable, free from constitutional disturbance, and had had a short nap. The necessity of supporting the head and neck by means of a gutta-percha splint was considered, but abandoned, in consequence of the excessive tenderness of the surface, the heat it might produce, and its interference with the local application of the fomentation, which afforded great relief. The night following the accident she retired, contrary to directions, to her own bed, but was obliged to resume the position in the chair, as she found the recumbent posture could not be borne. She continued gradually to improve from day to day, although it was not until August 3, five days after the accident, that she was able to obtain rest in bed, and then only when well supported by pillows. The position in the chair was still the most comfortable, and she was accustomed for some days after to rise as early as 4 a.m. to resume her place in it, retiring to bed at night for the sake of change. She was always most careful in raising herself, and refused assistance for fear of having the head jerked. Her improvement was progressive throughout, with the exception of a return of headache on August 14, in consequence of some excitement, but which soon disappeared. On the 21st, three weeks after the accident, she so far recovered as to be allowed to go downstairs, and walk in the garden towards the cool of the day. The ptosis of the right eyelid had then disappeared, and the countenance had resumed its natural expression. The power over the right arm, although still imperfect, was gradually improving, and the only thing noticeable was that she carried her head in a stiff and formal manner, with a drooping forwards, a condition which continued more or less until the beginning of October, when it gradually passed off, and she recovered by slow degrees control over the motions of the head. The morbid sensibility of the surface of the head and neck, with pricking of the skin, and occasional pain under the jaw, continued more or less for a fortnight, and there was likewise up to that period a sense of falling backwards, if unsupported, or any attempt made to raise the head. The treatment consisted in keeping the patient perfectly quiet in the upright position, with the head well supported by pillows, low diet, an evaporating lotion to the head, and fomentation to the neck by means of the spongio-piline. The author concluded the history of the case by some remarks as to its precise nature, accounting for the skull not having been fractured by the blow causing the accident on the supposition that the head must rather have been violently pushed aside than directly struck; and he alluded especially to the interesting physiological phenomena announcing temporary pressure or injury of the spinal narrow—namely, the difficulty of breathing, the exalted sensitiveness of the scalp and integuments of the neck, the general numbess, incomplete palsy of the right arm, and ptosis of the right eyelid, all of which symptoms gradually disappeared, leaving the patient free from any trace of injury, eleven weeks after the accident.

The PRESIDENT said that he wished to encourage the reading of single cases, and remarked on the value of the present one as bearing on the question of cutting down and trephining the vertebræ in fracture or dislocation.

Dr. INGLIS narrated a case he had seen in Australia. A boy was thrown against a tree; he remained insensible for some weeks, and when seen by him certain of his cervical vertebræ seemed to be slightly displaced. When he tried to twist his neck he fell down in a convulsion. He only saw him once.

Mr. HOLMES remarked that the evidence as to displacement in the case before them was rather weak. He had seen one where the last dorsal was separated from the first lumbar vertebra. No great force was needed for their reduction, but the patient died of gangrene. He held to extension rather than to operation.

The PRESIDENT said his observations applied rather to cases of fracture than to those of dislocation.

A LADY MEDICAL PUBLISHER.—In a circular which she has just issued, Mrs. Baillière, widow of the late Hippolyte Baillière, established so many years in Regent-street, announces that it is her intention of carrying on the business as his sole successor.

THE PATHOLOGICAL SOCIETY.

TUESDAY, FEBRUARY 4, 1868.

J. SIMON, Esq., President, in the Chair.

DR. MOXON exhibited a specimen of

EVERSION OF THE SACCULUS LARYNGIS.

The specimen was the larynx of a patient who died at Guy's Hospital of cancer of the stomach. He had been a naval schoolmaster, and was a man of great acquirements. He lay long in the Hospital, and conversations with him were frequent, because his case was obscure, and he was much more able to give an intelligent account of himself than the average of the patients. Nevertheless it was not noticed that his voice was remarkable in any way. Dr. Moxon often spoke with him, and his voice was always such as not to attract attention. It was then with some surprise that on inspecting his body he found the appearance shown in the preparation. There is what at first sight appears to be a tumour hanging down over one of the vocal cords; it is semi-elliptical in shape, and it is rooted above in the anterior half of the ventricle of the larynx. On examining the tumour, Dr. Moxon found that it could be easily put up into the usual position of the sacculus of the larynx; that when so placed—the tumour inverted and returned behind the false vocal cord—it appeared as the sacculus laryngis, while without it there was no sacculus laryngis at all, so that there could be no doubt that it is an everted sacculus. When so replaced, it very easily fell out of its position again, and reappeared, as it is now seen, a pendulous laryngeal tumour, very tempting to one skilled in the removal of laryngeal polypi.

The PRESIDENT asked Dr. Moxon if he had any reason to believe that the prolapse of the sacculus was congenital.

Dr. MOXON stated that the only indication of that was the laxity of the neck of the tumour.

Dr. MOXON next showed a specimen of

EMBOLISM OF THE SPLENIC ARTERY, THROUGH CANCEROUS PERFORATION OF ITS WALL.

This specimen was from the same body as furnished the everted sacculus laryngis which had just been shown. The patient's symptoms during life were singularly obscure; he generally denied having any pain, he never vomited, but he kept his bed and could not eat—not that food gave him pain, but he loathed it. One day he suddenly became faint and died. His life had been one of anxiety and disappointment as an unsuccessful schoolmaster. On examining the body the stomach and alimentary canal were found to be full of blood. At the opening in the artery there was no clot, but in the spleen was a patch of the usual appearance of those resulting from embolism—*i.e.*, paler and firmer than the rest of the organ situate at its anterior margin, and sharply demarked by a darker border. The embolism was proved by the presence of a plug of pale fibrin in the artery that fed this part of the spleen. Putting these facts together, it seemed to Dr. Moxon most reasonable to conclude that the action of the cancerous ulcer during perforation of the artery caused a lodgment of solid fibrin on the inner face of the artery at the spot attacked, and that this solid fibrin had been detached, moved on by chance into the vessel in which it was found in the form of an embolic plug. He did not know of cases in which embolism had arisen from such a cause, but it seemed far from unlikely that such cases should happen. Thus, when an abscess or a cancer is about to perforate the carotid artery, we may expect as a possibility the formation and detachment of a clot to occur in the carotid, leading to a plugging of some cerebral artery and consequent hemiplegia of the opposite side; or the abscess of the thigh, prior to opening the femoral artery, may cause the lodgment and detachment of clot in that artery and subsequent partial or total gangrene of the foot from embolism of the vessels lower down.

The PRESIDENT stated that he knew of one case which bore on Dr. Moxon's. There was much sloughing going on in the groin close to the femoral artery, and at a period when it was doubtful whether or not the artery would rupture at that spot, it temporarily became pulseless beyond the site of the inflammation.

In reply to a question by Dr. Murchison, Dr. MOXON stated that he supposed the opening to be due to sloughing as well as to cancerous erosion.

Dr. MOXON also showed a specimen of

ULCERATIVE ENDOCARDITIS, WITH EMBOLI IN SEVERAL ARTERIES.

There were shown parts of many organs from a case of great interest which came under post-mortem inspection the day before the meeting. During life the case passed for one of typhoid fever, and although the disease was of another nature, yet its symptoms were very deceptively like those of typhoid fever. The patient was a young man aged 21. He had been ill a week on admission to Guy's, and had been attacked with pain in the limbs and back, headache, and shivering. When he came in it was at first doubtful whether his case was to be received as rheumatic or as typhoid. He had pains in the limbs, but these were not localised, and he could move them easily; his tongue was dry and brown; pulse 110 to 116; his temperature 104; and his bowels rather loose, the stools being regarded as a characteristic typhoid stools. He died on February 2. He was unconscious for the last twelve hours; before that time he spoke to the nurse, and was quite intelligent—in particular he "begged her pardon" because he struck her accidentally as she was lifting him; this was at noon on the day of his death. On inspection, there were ecchymotic spots on the chest and abdomen. Further ecchymotic spots were found on the pleuræ, pericardium, larynx, stomach, and intestines, and in the urinary bladder, giving the appearance that we associate with blood-poisoning, but the mesenteric glands were healthy, and the intestine, except for the spots, perfectly so also. The spleen was, however, large and soft, as in typhus; it weighed 18½ ounces, but it had in it two large pale wedge-shaped patches, of the kind called embolic patches. This led to the examination of the heart, and then the case became clear. The aortic valves were much diseased; two of them were converted in appearance to heaps of rather loosely connected vegetations, and the common point of attachment of two of the segments was in an excavated state, as from ulceration. The excavated spot was in the concavity of the bend upwards that the mass must have made in the current during systole. The mitral valve had a similar localised patch of disease, and it was remarkable how healthy were the remaining segment of the aortic valves and the rest of the mitral. The blood in the heart was liquid. The kidneys had numerous "embolic" patches in them, recent and semi-recent. The liver showed externally no signs of them, but on opening up the right hepatic artery there was a plug in its second bifurcation, this plug being adherent. This shows what would be expected—that the immunity of the liver from the "embolic patches" is not due to any immunity of its artery from emboli, but must be due to some other condition of its circulation. The brain externally showed no change, but on following the Sylvian arteries there were found two plugs of fibrin in the right Sylvian, and though nothing unusual was to be seen on superficial observation of the brain at that part, yet a stream of water immediately showed a decided softening there; the brain broke at that part away in a pulp in a stream that had no effect on the rest of the organ. Dr. Moxon examined the ecchymotic spots in the bladder, and found, by cutting fine sections of the mucous membrane at those spots, that there were emboli in capillary arteries where the spots were situated. In the right lung were two patches, which were in their characters intermediate between apoplexies and pyæmic suppurations. This case bears best the interpretation that the blood had been poisoned by the products of the endocardial ulceration. The state of the spleen, of the blood, and of the serous membranes, and the comatose state of the patient, together favour that view.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 6, 1868:—

Richard Mount Cole, Rochester.
Charles Lewis, Woodland-terrace, Blackheath.

The following gentlemen also on the same day passed their First Examination:—

William Henry Cringle, London Hospital.
Matthew Henry Laxton, Guy's Hospital.
George Richard Nunn, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BALMAN, T., M.D.—Physician to the Liverpool Dispensary for Diseases of the Skin.

BARROW, B., F.R.C.S.E.—Senior Surgeon to the Royal Isle of Wight Infirmary.

BROWNE, E. A., M.R.C.S.E.—Surgeon to the Liverpool Dispensary for Diseases of the Skin.

BROWNE, J. W., M.D.—House-Surgeon and Superintendent of the Belfast General Hospital.

CAUTY, H. E., M.R.C.S.E.—Surgeon to the Liverpool Dispensary for Diseases of the Skin.

JONES, W., M.D.—Consulting Physician to the Amlwch Cottage Hospital.

MOORE, CHARLES FREDERICK, M.D., F.R.C.S.I., Assistant-Physician to Cork-street Fever Hospital and House of Recovery—Medical Inspector of Seamen for the Port and District of Dublin.

PRIESTLEY, Dr.—Consulting Physician-Accoucheur to the West London Hospital.

REID, J. L., M.R.C.S. Eng.—House Surgeon to the Royal Isle of Wight Infirmary.

SOLLY, S. E., M.R.C.S.E.—Surgeon to the Islington Dispensary.

WICKHAM, R. H. B., L.R.C.P. and L.R.C.S.E., House-Surgeon Gray's Hospital, Elgin, and Medical Officer to the County Asylum—Assistant-Physician to the Morningside Asylum.

NAVAL AND MILITARY APPOINTMENTS.

BARTLEY, A. G., M.D., Staff Assistant Surgeon Royal Artillery—Assistant-Surgeon

EVANS, U. W., M.D., 61st Regiment—Staff Surgeon-Major.

HEPWORTH, A. J. L., M.D., Staff-Surgeon 3rd Hussars—Surgeon.

MURRAY, J., M.B., Staff Assistant Surgeon 93rd Regiment—Assistant-Surgeon.

NELSON, Dr. T.—Deputy Inspector-General of Hospitals and Fleets in H.M.'s Fleet.

SMITH, U. R., Assistant-Surgeon Royal Artillery—Staff Surgeon.

STREET, J. P., M.D., Staff Surgeon 61st Regiment—Surgeon.

BIRTHS.

BREAKEY.—On February 7, at Gladstone-house, Southsea, the wife of Dr. J. Breakey, R.N., of a daughter.

CROSS.—On February 9, at Petersfield, the wife of R. S. Cross, M.R.C.S.E., of a daughter.

HINE.—On February 9, at Thickthorn, Ilminster, the wife of S. D. Hine, M.R.C.S.E., of a son.

HODGSON.—On February 4, at Long Sutton, Lincolnshire, the wife of W. Hodgson, M.D., of a daughter.

MACINTYRE.—On February 11, at Parade House, Fort William, the wife of Duncan Macintyre, M.D., of a daughter.

ROBSON.—On February 10, at 46, Great Marlborough-street, the wife of Dr. H. Robson, of a daughter.

MARRIAGES.

GRACE—STUTCHBURY.—On February 5, at the Parish Church, Almondsbury, Gloucestershire, E. M. Grace, L.R.C.P., etc., of Thornbury, to Annie White, youngest daughter of the late J. S. Stutchbury, of Georgetown, Demerara. No cards.

HARVEY—ROWE.—On February 5, at Bideford, North Devon, C. H. Harvey, Esq., Army Medical Staff, to Hannah Frances, youngest daughter of the late Rev. G. Rowe, rector of St. Dorothy, Jamaica.

MUNRO—JERVIS.—On February 11, at Christ Church, Croydon, D. Munro, L.R.C.P., L.R.C.S. Edin., Aberdour, Fife, N.B., to Joan Robina, youngest daughter of the late P. Jervis, Esq., Walkern-park, Herts. No cards.

SPENCER—BANFATHER.—On February 11, at Sprowston, Norfolk, H. B. Spencer, M.D. Oxford, to Mary Emma, eldest daughter of the Rev. H. Banfather, Perpetual Curate of Sprowston and Rector of Beeston St. Andrew. No cards.

DEATHS.

BALMAN, T., M.D., M.R.C.S.E., at 6, Bedford-street South, Liverpool, on February 5, aged 50.

BURT, J. G. M., M.D., F.R.C.P., at Edinburgh, on February 9.

CHEKE, A. H., late Inspector-General of H.M.'s Indian Army, at Acombe House, Cheltenham, on February 7, aged 51.

CORBYN, Dr. F., H.M.'s Bengal Service, late Civil Surgeon at Bareilly, at Cheltenham, on February 5.

GROWSE, J., M.R.C.S.E., at Hendon, on February 4, aged 47.

LITTLEHALE, C., M.D., at Winchester, on February 9, aged 84.

SMART.—On February 10, at Royal Hospital, Greenwich, aged 17 months, Marie Louise, daughter of Deputy Inspector-General William R. E. Smart.

VACANCIES.

BUCKINGHAMSHIRE GENERAL INFIRMARY.—Resident Surgeon and Apothecary.

JERSEY LUNATIC ASYLUM.—Medical Superintendent

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Bellingham Union.—Mr. E. C. Robertson has resigned the Third District; area 46,[illegible]; population 1052; salary £15 per annum

APPOINTMENTS.

Epping Union.—Robert N. Day, M.R.C.S.E., L.S.A., to the Harlow, Matching, and Magdalen Lower Districts.

Fylde Union.—Andrew A. Boyle, L.R.C.P. Edin., L.R.C.S Edin., to the Second Kirkham District and the Workhouse.

Headon Union.—John R. Pope, M.R.C.S.E., L.S.A., to the Pinner District

South Molton Union.—Robert H. S. Spicer, L.R.C.S.E., M.D. St. And., to the Eleventh District.

Tenterden Union.—Robert Skimming, M.D.Edin., M.R.C.S.E., to the Biddenden District.

Tewkesbury Union.—William Allard, M.R.C.S.E., L.S.A., to the Tewkesbury District and the Workhouse.

Toxteth-park Township.—William E. Smith, M.R.C.S.E., L.S.A., to the First District.

Uxbridge Union.—John R. B. Dove, M.R.C.S.E., L.S.A., L.R.C.P.Lond., M.B., to the Ruislip District.

AT a meeting of the Medical Officers of Health Association in the Rooms of the Scottish Society, Crane-court, Fleet-street, to be held this evening at 8 o'clock, Dr. Letheby will read a paper "On the Propagation of Cholera by Water." Dr. Letheby's views are all the more interesting as opposed to those now generally current, and there can be no doubt but that he will support them with his usual ability.

WE regret to hear that Surgeon-Major Meikleham is compelled by bad health to return to this country from Abyssinia. Surgeon-Major Bawtree, who was lately at Jersey, goes out to Abyssinia by the mail of the 12th inst., to relieve Dr. Meikleham.

THE MERCURIAL POISONING AT PRESTON.—It is satisfactory to learn that the Medical Officer of the Walton Workhouse was in no way responsible for the possession by the master of the ointment which in one case proved fatal. The evidence given before the Poor-law Inspector shows that the master was in the habit of ordering and receiving it from a wholesale chemist, and that the Medical Officer did not even know that it was in the stores.

A LOCK HOSPITAL FOR MADRAS.—The Madras Government have decided to establish a Lock Hospital, and have ordered the Public Works Department to examine the building known as the Church Mission House with a view to its purchase.

REMEDIES FOR FEVER.—The Madras Government have intimated their approval of Mr. Broughton, the quininologist, investigating the capabilities of Coimbatore, Malabar, Salem, and Mysore for producing febrifuge preparations. The Government have placed the services of an interpreter at Mr. Broughton's disposal, granted extra travelling allowances, and instructed all officers to afford him all possible co-operation in their power. Mr. Broughton has also been recommended to investigate the native remedies for fever.

THERE is at present a movement on foot for the presentation of a testimonial to Stevens, the inventor of the patent bread-making machines which have done so much good to others, but evil to their inventor, he having been reduced to poverty through the agency of his invention. Gentlemen anxious to aid in or to contribute to this testimonial may do so through the Honorary Secretary, 7, Racquet-court, Fleet-street, E.C.

ANNUAL MEETING OF THE BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—On February 7 the stated annual meeting of the members of this local branch of the above most excellent Society was held in No 33, High-street. Owing to the great severity of the weather, the attendance was necessarily limited. Amongst those present were—Dr. T. H. Purdon, the permanent President, who occupied the chair; Dr. Patterson, Dr. Wilberforce Arnold, Dr. Whitaker, Dr. James Moore, Dr. Ritchie, Dr. H. S. Ferguson, Dr. S. Browne, R.N.; Surgeon H. M. Johnston, and Dr. Stewart. The report of the proceedings of the past year was read and approved, and showed a progressive improvement in the interest taken by the Profession in furtherance of the important objects of the Society, as indicated by an increased number of supporters, and a desire to extend its usefulness. It was received by the meeting with marked satisfaction, that amongst the contributors outside of the Profession were the Marquis of Londonderry, through his lordship's agent, James Brownlow, Esq.; the Rev. William O'Neill, of Shane's Castle; and Sir Edward Coey; thus

affording an example worthy of being more generally followed by the large number of the aristocracy and wealthy gentry residing in this district, and so far repaying a debt of gratitude confessedly due to the Medical Profession, who, as a body, afford more gratuitous services to the public generally than any other, and this, too, in the most liberal and effective manner.

ORIGINAL ARTICLES WANTED.—We London editors, who usually represent our tables as groaning under the weight of articles awaiting their turn of insertion, may judge of the straits our Transatlantic brethren are reduced to from an exactly opposite state of things by a paragraph headed in the *Boston Journal* as "*A Generous Offer.*—Why our Profession does not write more for the journals is a question we have seen canvassed. It is believed that much of scientific value is lost to the reader through the backwardness of Practitioners to steal time from their laborious duties to contribute to the periodical literature of the day. But the subject is now approached in a different manner, and solely with a view to the advantage of the contributor himself. A Medical friend (whose liberality has become almost an everyday affair), feeling the importance to the younger members of the Profession of committing their ideas and observations to paper, makes the following offer:—He will cause the *Boston Medical and Surgical Journal* to be sent for one year, free of expense, to Practitioners of not more than ten years' standing, who may write for the journal one original article each, of not less than three, nor more than six, printed pages, on any subject of current practical or Professional interest—the articles to be accepted by the editor, and the number of these representatives of 'young Physic' to be thus favoured not to exceed ten."

THE DUBLIN UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.—The inaugural meeting of the Society lately established under the above title by the Medical students of Trinity College, Dublin, took place on Tuesday evening, the 21st ult., in the dining-hall of Trinity College. The chair was taken at 8 o'clock p.m. by Dr. Stokes, M.D., D.C.L., F.R.S., Regius Professor of Physic in the University. On the right of the chair sat the Right Honourable the Lord Mayor; the University Professor of Surgery, Dr. Robert Adams, who is also President of the Royal College of Surgeons; Sir D. J. Corrigan, Bart.; and Dr. Porter, Vice-President of the College of Surgeons. On the Chairman's left were the Right Honourable Sir Joseph Napier, Bart., Vice-Chancellor of the University; the Rev. the Provost of Trinity College; Dr. Gordon, Vice-President of the King and Queen's College of Physicians; Sir William R. Wilde. There were also present on the platform Dr. Wyse, Governor, and Dr. Nolan, Deputy Governor of the Apothecaries' Hall; the Rev. Professor Jellett and several other Fellows of Trinity College; Dr. Aquilla Smith, Dr. Law, Dr. Leet, Dr. Stronge, Dr. M'Clintock, etc. Dr. Stokes, on taking the chair, said:—"Fellow-students, in naming me one of your presidents, you have doubtless been influenced by the respect you entertain for the position which I have the honour to hold in this University, and, I am apt to believe, by a warmer feeling towards myself; and I cannot, therefore, refrain from expressing at once my pride and my gratitude. To any man whose life has been spent in unremitting work, there is nothing more welcome than to find his shortcomings overlooked, his wishes and his objects appreciated, and that, in the course of his long years, he has at last earned the confidence of his fellows, and some portion of the respect of his juniors. The formation of this Society is the natural result of the increasing development of the University School of Medicine. The Profession of Medicine over the world owes a great debt of gratitude to our University, for that honoured body has long held Medicine, as one of its faculties, in due respect, not looking at Medicine as a special art to be practised, as almost a handicraft, but as a large pursuit embracing many important objects, and to which every branch of human knowledge, without exception, lends its aid—a pursuit having relation to the destinies of man here and hereafter. The University of Dublin has recognised, and wisely insisted, that those Medical graduates, those who are to exercise this scientific and sacred calling, should not come to it with unexercised intellects and uncultured minds. For more than a century it has been contented with having, in comparison with other institutions, a very limited Medical class, believing that in good time those enlightened views would bear fruit. During the last quarter of a century, and by a succession of wise and liberal enactments, the proportions of the school have been annually increasing, and now the University can point to a state of things to which there is nothing similar in the wide-spread empire of the Queen of England. In no university or educational institution can be found so large a body of young men at once students in arts and preparing and prepared to cultivate Medicine, to extend its domain, and to arrive at its highest objects and social rank; and thus, by a due preparation of the mind in letters, in ethics, in science, and in religion, fitting them to fulfil in a large and enlightened spirit the many duties of their future calling—furnishing them, as it were, with the instruments necessary to follow the paths of discovery—teaching them to know themselves, and what manner of men they are, and at last crowning them with an academic rank of which nothing can deprive them. It is anticipated by some thinking men that the time is coming when the municipal or corporate divisions in Medicine will cease to be, and that then the classification into Physicians and Surgeons, and general Practitioners and obstetricians, will be a thing of the past. But there will be a distinction, marked by no feeble or uncertain line, between those members of the Profession who have received the higher or general education, and those who have only had the lower or special training; and this distinction will be recognised by the public and by the State, and by all men who are zealous for the advancement of human knowledge. As to the ultimate success of this Society, it is obvious that it must depend upon its members. The discipline of the University requires that some senior or responsible officer shall preside, to be a guarantee to the authorities of the College that order and fitting decorum are preserved. This is necessary, particularly as debates will form a part of our proceedings. But, useful and necessary as this safeguard may be, it will, when compared with the individual action of the members, be of a minor value. Every member of this Society will do well to bear in mind, and lay it to heart, that its honour, its character, and its permanence are committed to him individually as precious jewels; and with this strong and wholesome feeling on your minds, I do not doubt that it will become a great element in furthering the cause of the higher education. I congratulate you on your present position as students in arts and in Medicine in our faithful and liberal University. I congratulate you on the formation of this Society, and on the character of your first auditor, a most distinguished student in arts and in Medicine, and an example of the higher moral qualities which should distinguish the Professional man. I congratulate you on the circumstance that you are preparing for your Professional lives in Dublin, for I believe that in our city Medicine is, and has long been, in a healthy state. The Irish Medical School and Medical Profession are among the things that we may be honestly proud of; and I have long believed that the high social rank of the Profession in this country is owing, among other things, to so many of its members having had a University education. With us, too, there is comparatively little of the trading spirit, comparatively little of illegitimate effort to come before the public by the announcement of this or that new remedy, or this or that successful operation. There is amongst us, and it has long been so, a sober earnestness in investigation, a sound Professional and truth-seeking spirit, and an absence of dogmatism, whether as to theory or practice—an absence, too, of Professional distrust or jealousy; and I do not doubt that these traditions will be the guide of your future conduct. I cannot conclude without alluding to the fact that within these walls, and not a long time ago, a meeting of the great Medical Association of Great Britain and Ireland was held; and whether in a scientific, a national, or a social point of view, that meeting was one which I know will be long remembered by our brethren in England. As was well remarked by the eloquent Professor of Surgery, the University reign of our venerated Provost was inaugurated by his most energetic and graceful effort to do honour to the great Medical Congress on its first visit to Ireland. The conferring of honorary degrees upon some of the more distinguished of our visitors crowned the occasion. One of those so honoured is now no more, and in that list of illustrious names there was none more deserving than Dr. Teale, of Leeds, who, while one of the Crown representatives for England in the General Medical Council, was the strenuous advocate that none of the higher qualifications in Medicine or Surgery should be attainable without an education or degree in arts. This act of the Provost, and the earnest co-operation of all the authorities of our University on that occasion, are not without significance, and should encourage each of you to show, were there no other motive, that you feel that Medical science has been duly honoured, and that it will not be your fault if it does not continue to deserve such

honour from the wise, the learned, and the good." The Auditor, Mr. E. W. Collins, B.A., Medical Scholar of the University, next proceeded to read a very eloquent and admirably delivered inaugural address, which we regret want of space will not allow us to reproduce. Sir Dominic Corrigan, Bart., in an eloquent speech, moved that the thanks of the Society were due to the Auditor for his address, and that it be printed at the expense of the Society. Sir Dominic's proposition was seconded by Dr. Adams, and was unanimously adopted. The Rev. Professor Jellett moved the next resolution—"That this Society is worthy of the support of the members of the School of Physic." Sir William Wilde seconded the resolution, which was carried by acclamation. Dr. Aquilla Smith moved, and Dr. Law seconded, a vote of thanks to the distinguished visitors who had honoured the meeting with their presence. The Lord Mayor responded, and the proceedings terminated. The following, with the President and Vice-Presidents already mentioned, are the officers of the Society. *Auditor:* E. W. Collins, B.A., Med. Schol. *Treasurer:* J. W. Moore, B.A., Schol. T.C.D. *Secretary:* W. H. Bradshaw. *Council:* W. E. Battersby, B.A., Medical Schol.; J. C. Boyd, B.A.; C. E. Fitzgerald, B.A.; W. H. Gregg, B.A., Medical Schol.; R. J. Harvey, B.A., Schol. T.C.D.; G. P. O'Farrell, B.A.; F. Taylor, B.A.

Composition and Quality of the Metropolitan Waters in January, 1868.—The following are the returns of the Metropolitan Association of Medical Officers of Health:

Names of Water Companies	Total Solid Matter per Gallon	Loss by Ignition (a)	Oxidisable Organic Matter (b)	Hardness. Before Boiling	Hardness. After Boiling.	Organic and other Ammonia.
Thames Water Companies	Grains	Grains.	Grains.	Degs	Degs	Grains.
Grand Junction	25·17	1·45	1·08	15·0	4·0	0·010
West Middlesex	25·59	1·40	0·73	15·0	4·0	0·010
Southwark & Vauxhall	22·99	1·75	0·80	14·5	4·0	0·010
Chelsea	22·41	1·00	0·57	14·0	4·0	0·010
Lambeth	22·07	0·95	0·57	14·0	4·0	0·010
Other Companies						
Kent	27·44	1·05	0·22	16·0	6·0	0·010
New River	22·43	1·40	0·66	14·0	3·5	0·010
East London	24·64	1·75	0·83	15·0	5·0	0·010

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8, and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

The Grand Junction water was turbid, and all the samples except that of the Kent Company contain a slight excess of solid matter, on account of the floods occasioned by the heavy rains.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

Dr. Bowles is Physician to the Prince Imperial of France.

J. B. G.—Send notice to the Coroner.

We are sorry that in our last week's number the name of Mr Harper appeared in our notice of Professor Huxley's Lectures for that of Mr. W. K. Parker, the well-known authority on the Foraminifera.

The Last of Circumcision.—Some "Sketches from the History of Medicine" have lately been circulated privately by a Medical Practitioner, who deserves credit for employing his leisure in dipping into the antiquities of our Profession. Of course, the sketches, relating, as they do, to a period of more than 3000 years, contain some disputable points, as well as some worthy of commendation; but as the book is intended for private circulation, we should not notice it were it not to correct a most grotesquely absurd account of the rite of circumcision as practised at the present day, which is calculated to annoy that most respectable body of our fellow-citizens who are adherents to the ancient Jewish faith. The operator does not, as is alleged, suck the blood of the wounded organ, and spit it into a cup of wine, but he takes a sip of wine, and spurts it warm from his mouth over the wound. Formerly he used to fill his mouth with wine, and take the child's member into his mouth and foment it for a few seconds; but as refinement advances, this process has become obsolete. We have often enough watched the process, which is conducted with great skill and dexterity, and have never seen what could be called a part of it to South's translation of Chelius. Any one, too, who wishes for historical information on the subject should refer to Dr. Kalisch's "Historical and Critical Commentary on the Old Testament."

The Ladies' Medical College and the British Lying-in Hospital.—We have received a letter from Dr. Jas. Edmunds on the subject of the correspondence between himself and Dr. Eastlake. Neither the length nor the tone of that letter permits us to publish it.

Fitzroy Pamphlets, No. 1.—Dr. Edmunds states that the Ladies' Medical Society and College disclaim the authorship of Fitzroy Pamphlets, No. 1, and are not responsible for the title. We never attributed the authorship to any member of the College or Society. The tract speaks for itself, and libels the Medical Profession, whilst it is full of laudation of the Ladies' Medical College and its lecturers. Mrs. Thorne, of the Ladies' Medical College, also writes to assure us that the pamphlet is not written by one of her sex, but by "a gentleman," and she affirms that he is not connected with the Female Medical Society.

Alderton versus Statham.

Further contributions:—

	£	s.	d.
R. P. W., Newport, Monmouth		10	6
R. H. Osborne, Esq., Newport, Monmouth.	0	10	6
J. T. Cunningham, Esq., Edinburgh	1	1	0
G. W. Bellaby, Esq., Nottingham	0	10	6
H. R. Rowe, Esq., Preston	1	1	0
J. H. Bean, Esq., do.	1	1	0
David Campbell, Esq., Liverpool	0	10	6
W. J. Newman, Esq., do.	0	10	6
J. Wilson, Esq., Hull	0	10	6
G. Martin, Esq., Bedford	0	10	0
Dr. T. Kinnear, Leamington	1	1	0
Chas. Sims, Esq., Birmingham, per D. W. C.	1	0	0
W. J. S.	0	1	6
Chas. Sims, Esq.	0	10	6
Robt. Sims, Esq.	0	10	6
W. E. P. Wood	0	10	0
J. O. L. Pailin, Esq.	0	10	6
— Hopkins, Esq.	0	10	6
W. G.	0	5	0

Gentlemen are requested to send their contributions to E. Saunders, Esq., Hon. Treasurer, 13A, Great Queen-street, Hanover-square, London, W.; or to Dr. Cockburn, Hon. Secretary, 4, Russell-square, London, W.C., on or before February 20, as the subscription list will be closed on that day.

Paddock Fund.

	£	s.	d.
Subscriptions announced	17	9	0
Additional Subscriptions:—			
Dr. J. Wakley	1	1	0
Dr. Richardson, Exmouth	1	0	0
F. V. Eck, Esq.	0	10	0
J. Hobson, Esq.	0	10	0
M. Upton	0	2	6

The Vaccination Act.

To the Editor of the Medical Times and Gazette.

Sir,—In printing my letter to the Secretary of the Poor-law Board in your number of the 1st inst., I observe that you omitted the objections urged to restricting vaccinations to a weekly performance at stations, and as the omission may have arisen from a defective state of the MS., I beg to hand you another of them, as I fancy this point is a matter of some importance to the public vaccinators, and I am sure it is to the poor. Had there been any application to the Medical or sanitary administration at the Poor-law Board, as I trust there will be ere long under the able auspices of Dr. Edward Smith, I should not have pressed this matter on your attention; but as it is, I have good reason to fear that payments for vaccinations done elsewhere than at an appointed time and station will, according to the contracts now draughting at Whitehall, be "nil."

February 4. I am, &c. Septimus Gibbon.

*** The objections urged by Dr. Gibbon to compulsory stations are:—

"1st. Because the bringing together a number of children where parents are unknown to each other is sure to be the means of spreading and keeping alive the very contagious diseases of infancy and childhood, just in the same manner as fairs and markets build the cattle plague.

"2ndly. Because, in the case of a sudden outbreak or importation of small-pox, it is of vital importance at once to vaccinate all unprotected adults and children in the immediate neighbourhood.

"3rdly. Because the exigencies of Medical practice are such that the vaccinator cannot guarantee a punctual attendance at, it may be, a distant station. This objection may of course be met by allowing him such a salary as will enable him in a measure to sacrifice his general Medical practice. This is done with the vaccinators under the National Vaccine Establishment, and I believe their stations, located only in very large towns, are tolerably well attended.

"Fifthly. Because attendance at a station, for several hours on at least two, if not three occasions, will entail expense, inconvenience and loss of time on the poor, for which, if compulsory, they would in justice have a claim for pecuniary recompense."

Universal Vaccination.

To the Editor of the Medical Times and Gazette.

Sir,—Can you, with your usual liberality, allow me a small space in your journal in order that I may bring before my Medical brethren a scheme which appears to me most effectual in bringing about our much desired project, "universal vaccination?" I would propose—

1. That the forms of registration of birth should, in addition to their present spaces, include a column in which may be entered the name of the accoucheur employed in each particular case.

2. That the Medical man attending a childbirth should be responsible for that infant's vaccination before it shall reach the age of three months, provided it survives, and its health admits of the operation.

3. That public vaccinators should be appointed who shall be responsible for the vaccination of such infants as are born within their district, and a daily medical Journal or the District Registrars of Births furnishing monthly a list of such cases to the public vaccinators.

4. That the fee for vaccinating the infant should amount to "one shilling" of the public purse by quarterly payments.

I am sure the respectability of the operation has not been sufficiently appreciated by the public, the greater portion of whom are too ignorant to appreciate the necessity of enforcing the laws, to the very class of people who are most [illegible] Feb. &c.

Medical Institute, February 8. H. William Jackson.

THE UNIFICATION OF THE ARMY MEDICAL DEPARTMENT.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—This is a question of very great public interest. All the members of the department whose experience is sufficient to give weight to their opinions, I believe, are strong advocates for unification. It is being adopted in the Medical departments of all foreign states whose army is of any repute. The advantages from this plan are numerous. They relate to the State, the service, and the officers of the department. To the State it would bring great economy, and this is a point worthy of the attention of Sir H. Storks at the present time. To the service advantage would accrue from greater efficiency executively and professionally, while the officers of the department would gain in social status, and in increased opportunities of professional experience, which now they have not. The main difficulty to thus organising the department lies in the present construction of the British Army. The present regimental subdivision of our army would greatly impede the working of the department on this unified basis; but still it is believed that, even with this difficulty, the proposed plan would succeed much better than the present one. One of the greatest absurdities of the present plan is the General Hospital system. Medical officers are falsely accused of being anxious to rob the combatant officer of command, but here is a case of the combatant usurping the proper place of the Medical officer. It is quite unreasonable that there should be any governors or assistant governors to these establishments as long as the department can boast of such administrative officers as Dr. Muir, C.B., and others. At present these appointments are a source of very great expense to the State, and are quite unnecessary. They seem to have been made as shelves for men who either cannot obtain or will not be trusted with higher charges, or who prefer the *far-niente* life of a pseudo Sarah Gamp to the more legitimate duties of the true soldier. Space will not allow me to enter fully into the whole of this General Hospital system, but the greatest of all curses which can befall any public military Hospital is the introduction of what Sir Andrew Smith used to call the "civil element" viz., the pensioned medical system.

Naval and Military Club, February 10. [illegible] UNITAS.

COMMUNICATIONS have been received from—

Dr WILKS, Mr. W. E. PORTER; Mr. J. HUTCHINSON; Mr. CHAPPEL; Dr. NUNNELEY; Dr. HUGHES; Dr. JACKSON, JUN.; Dr. THOMAS; Dr. LETHEBY; Dr. STEPHEN; Dr. MILLOY; Messrs. WILLIAMS & CO.; Mr. G. SAVAGE; Mr. W. K. PARKER; Mr. V. W. [illegible]; Dr. H. W. [illegible]; Dr. C. DICKINSON; Dr. T. R. [illegible]; Mr. J. P. [illegible]; E. M. [illegible]; R. H. B. WORTHAM; Dr. SILVER; Mr. H. [illegible]; Dr. [illegible]; Inspector-General MOUAT; Mr. R. C. TODD; Mrs. THORNE; Mr. A. FOX; G. H. [illegible]; Mr. [illegible].

BOOKS RECEIVED—

Klob's Pathological Anatomy of the Female Sexual Organs—Clarke's Observations on the Nature and Treatment of Polypus of the Ear—New York Medical Journal, January—Hassall's Lectures on Fever—Poggiolini on the Climate of the Canary Islands—Hartmann on Guinea Worm, or Dracunculus—on the Public Health—Hayne's Clinical Cases—Dr. Wood's Chemical Notes for the Lecture-room—Sweet Flowers, by J. N. —American Journal of the Medical Sciences, No. 109.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 8, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Feb. 8	Deaths. Corrected Average Weekly Number.*	Deaths. Registered during the week ending Feb. 8.	Temperature of Air (Fahr.). Highest during the Week	Temperature of Air (Fahr.). Lower during the Week	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2397	1441	1394	50·9	31·1	41·2	0·36	36
Bristol (City)	167487	35·7	141	75	190	51·0	33·0	42·2	0·56	57
Birmingham (Boro')	356296	45·0	253	171	139	49·1	33·0	41·7	0·62	63
Liverpool (Borough)	500676	98·0	407	290	282	48·6	32·4	40·8	0·75	76
Manchester (City)	366835	81·8	284	208	†201	49·4	33·0	41·3	0·65	66
Salford (Borough)	117162	22·7	91	59	58	49·3	32·1	41·3	0·60	61
Sheffield (Borough)	232362	10·2	156	122	109	52·7	34·0	40·5	0·56	57
Bradford (Borough)	108019	16·4	90	55	54	..	..	..	..	..
Leeds (Borough)	236746	11·0	222	120	94	53·0	24·5	41·2	0·52	53
Hull (Borough)	108269	30·4	81	50	42	54·0	30·0	39·6	0·70	71
Newcastle-on-Tyne, &c.	127701	23·9	87	68	83	50·0	30·0	39·8	0·60	61
Edinburgh (City)	177039	40·0	117	85	99	48·7	31·0	38·5	1·80	182
Glasgow (City)	449868	88·9	325	262	247	49·5	30·6	41·1	2·99	302
Dublin (City and some suburbs)	319985	32·8	180	‡157	196	51·4	27·8	41·5	0·41	41
Total of 14 large Towns	6391080	34·7	4831	3163	3088	54·0	24·5	40·8	0·86	87
					Week ending Feb. 1.	Week ending Feb. 1.				
Vienna (City)	(1863) 560000	..	..	..	349	..	..	§32·9	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·937 in. The barometrical reading increased from 29·51 in. at the beginning of the week to 30·25 in. on Tuesday, February 4. The general direction of the wind was W.S.W.

* The average weekly numbers of births and deaths in each of the above towns have been corrected for increase of population from the middle of the ten years 1851-60 to the present time.

† Registration did not commence in Ireland till January 1, 1864; the average weekly number of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

‡ The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

§ The mean temperature at Greenwich during the same week was 42·7°.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 8, 1868.

BIRTHS.

Births of Boys, 1162; Girls, 1235; Total, 2397.
Average of 10 corresponding weeks, 1858-67, 2,202·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	738	656	1394
Average of the ten years 1858-67	715·0	703·3	1418·3
Average corrected to increased population	..	..	1560
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	2	10	..	6	9	4	4	..
North ..	618,210	4	6	11	2	12	12	5	..
Central	378,058	4	3	2	1	10	4	1	..
East ..	571,158	5	6	6	1	16	6	2	..
South ..	773,175	7	5	8	2	17	7	3	..
Total ..	2,803,989	22	30	27	12	64	33	15	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·937 in.
Mean temperature	[illegible]
Highest point of thermometer	[illegible]
Lowest point of thermometer	[illegible]
Mean dew point temperature	[illegible]
General direction of wind	W.S.W.
Whole amount of rain in the week	0·36

APPOINTMENTS FOR THE WEEK.

February 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

17. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Lettsomian Lectures, No. 3—"Pneumonia and Pleurisy in Children," by Dr. Geo. Buchanan.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

18. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

19. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

20. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. W. Adams, "In what Cases is Lateral Curvature of the Spine Curable, and what are the directly Curative Means?"

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

SOUTH LONDON MEDICO-CHIRURGICAL SOCIETY, 8 p.m. Dr. Gervis, "Remarks on the Diagnosis and Treatment of Uterine Cancer." Mr. Zachariah Laurence, "On Watery Eye." Dr. Kempthorne, "Notes of Cases and Experiments illustrating the Action of certain Drugs."

21. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

ROYAL INSTITUTION, 8 p.m. Rev. M. W. Mayow, "On Macbeth and Hamlet as the Greatest Works of Shakespeare."

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See Pharmaceutical Journal of May 1, 1856.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

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Lecture IX.—Part I.

TURNING CONTINUED—SPONTANEOUS EVOLUTION—MECHANISM OF, IN FIRST SHOULDER-PRESENTATION, ABDOMINO-ANTERIOR; IN SECOND SHOULDER-PRESENTATION, DORSO-ANTERIOR AND ABDOMINO-ANTERIOR—SPONTANEOUS EVOLUTION BY THE HEAD.

The case we have just described (see Lecture VIII. Part II., *Medical Times and Gazette*, February 8, 1868) is the most common form of spontaneous evolution. It is the type of the rest. Keeping its mechanism well in mind, there will be little difficulty in tracing the course of spontaneous evolution when the child presents in any other position.

If the head lies in the right iliac fossa, constituting the second shoulder-position, as in the first position, the child's back may be directed forwards or backwards. In the first case we have exactly the counterpart of the process described. (See Lecture VIII. Part II., *Medical Times and Gazette*, February 8, 1868.) It would be superfluous to repeat the description, when all is told by simply substituting the words "right" for "left" and "left" for "right." It is, however, useful to trace the course of a labour in which the child's belly is directed forwards. Let us take the second position—head in right iliac fossa. This will involve the presentation of the *right* shoulder (see Fig. 43). A represents the presenting shoulder forming the apex of the triangle, whose

Fig. 43.

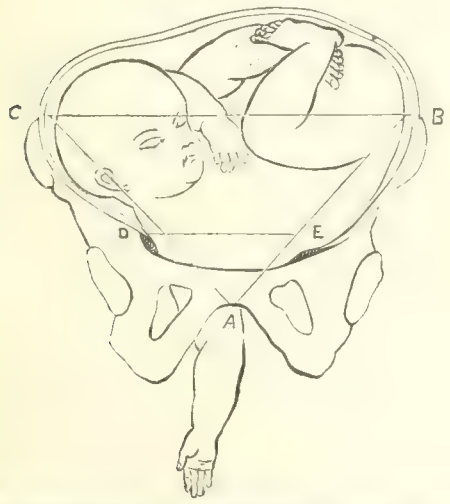


Fig. 43.—Second position of second shoulder-presentation above the brim; stage of flexion. A, apex of triangle wedged into pelvis; B C, base of triangle opposing entry into D E, brim of pelvis.

base B C is formed by the long axis of the child's body. The expulsive force and the concentric contraction of the uterus draw the head towards the breech, shortening the opposing base by bending the head upon the chest and the trunk upon itself. This is the movement of flexion. This movement continuing is combined with movement of descent. The right side of the chest is driven more deeply into the pelvis, and is followed by the breech. Then rotation takes place (see Fig. 44). The head comes forward over the symphysis; the breech rolls into the sacral hollow. The right side of the chest emerges through the vulva; the trunk and breech sweep the perinæum; the left arm follows, and lastly the head, the occiput taking up its fixed point at the pubic arch forming the centre of rotation.

Fig. 44.

Fig. 44.—Right shoulder—second position after rotation.

The presentation of the left shoulder in the *first position* offers no essential difference in its course from that pursued in the case of right shoulder with dorso-anterior position. The fœtal head is in the left iliac fossa; its sternum is directed forwards; the thumb of the prolapsed arm is turned to the left, the back of the hand looks backwards, the palm towards the pubes. The lateral flexion of head upon trunk and of trunk upon itself taking place, the left shoulder with the corresponding side of the chest descending into the pelvic cavity, the rotation-movement takes place and carries the head over the symphysis pubis (see Fig. 45). The basilar part of

Fig. 45.

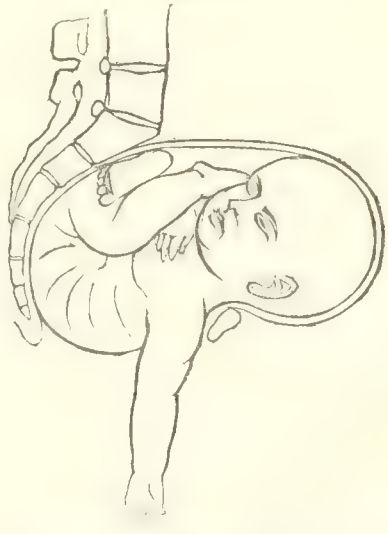


Fig. 45.—Left shoulder—first position after rotation.

the left temporal region will be applied to the anterior part of the brim; the sternum will turn to the right, the dorsum to the left and backwards. Then the movements of descent and in a circle follow. The side of the chest, trunk, and breech sweep the sacrum and perinæum. The body having escaped, the movement of restitution is performed—the back will be directed to the left and forwards. The head will be above the brim, with the nucha turned to the left and forwards behind the left foramen ovale, the face looking to the right sacro-iliac joint. Thus it will be born according to the mechanism observed in breech-labour.

In the case of the dorso-anterior position, with the head in

the right ilium, we have, as has been stated, simply the reverse of the direct anterior position with the head in the left ilium—the left shoulder becomes wedged in the brim, the left side of the head gets fixed upon the symphysis, the left side of the chest bulges out of the vulva. (See Fig. 46.)

Fig. 46.

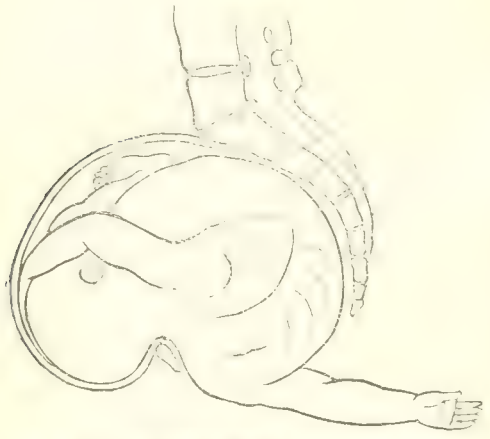


Fig. 46.—Left shoulder—second position, after rotation.

Such, in brief, is the description of spontaneous evolution. The process is the normal type of labour in shoulder-presentation. Were it more often justifiable to wait and watch the efforts of Nature, we should probably not seldom enjoy opportunities of observing it; but the well-grounded fear lest Nature should break down disastrously impels us to bear assistance. To be useful in the highest degree, that assistance must be applied in faithful obedience to the plans of Nature. In seeking to help, we must take care not to defeat her objects by crossing the manœuvres by which she attains them. Whenever we lose sight of this duty, whenever we try to overcome a difficulty by arbitrary operations, greater force, running into violence, is required, and the risk of failure and of danger is increased.

It has been already said (see Lecture VIII. Part I., *Medical Times and Gazette*, January 25, 1868) that spontaneous evolution may be effected by the head traversing the pelvis first. The case is indeed rare, but the process and the conditions under which it occurs deserve attention. The essential idea of spontaneous evolution is that the presenting shoulder remain fixed, or, at least, shall not rise up out of the pelvis into the uterus. Therefore, if the head comes down, it must do so along with the prolapsed arm. This simultaneous passage of the head, arm, and chest can hardly take place unless the child is small. If the child is very small, the difficulty is not great. If the child be moderately large, it will be far more likely to be born according to the mechanism already described and figured, in which the side of the chest corresponding to the presenting shoulder emerges first, and the head last. But some cases of head-first deliveries have been observed. Pezerat(a) relates a case that seems free from ambiguity. The child was large, the shoulder presenting. Pezerat tried to push it up, but could not. A violent pain drove the head down. Fichet de Flichy (b) gives two cases. In both the midwife had pulled upon the arm. Balocchi relates a case (c) It was an eight-months' child. He says the case is unique rather than rare, but still regards it as a natural mode of delivery in shoulder-presentation. Lazzati thinks the descent of the head in these cases is always the result of traction upon the presenting arm. As the expelling power is exerted mainly upon the breech, tending to drive the head away from the brim, it is indeed not easy to understand how spontaneous action can restore the head, if the shoulder is forced low down in the pelvis. Monteggia (d) held the same opinion. He relates two cases, in both of which tractions had been made. I myself have seen an instance of the kind.

The Premier's Illness.—We are glad to hear that Lord Derby is progressing favourably, and that the report of his having been paralysed is unfounded.

(a) *Journ. Complémentaire*, tome xxix.
(b) "Observ. Méd. Chir."
(c) "Manuale Completo di Ostetricia." Milano. 1859
(d) "Traduzione de l' Arte Ostetricia di Stein." 1796.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE VAPORISATION AND CONDENSATION OF NARCOTIC VAPOURS.

(*Continued from page* 171.)

The influence exerted by the atmosphere under the ordinary ranges of pressure is not to be forgotten in our researches. The Practitioner will find that at moderate temperatures—say from 50° to 60° Fahr., he will require a little more time to narcotise with the same quantity of chloroform when the barometer is below the mean of 29·5, than when it is a degree above the mean. But, after all, this is a minor effect compared with the effects of temperature.

Heat determines the elastic force of the vapour and the rate of evaporation; it determines the expansion of the vapour on its way, as such, into the lung; finally, it determines the rate of diffusion of vapour into the blood.

The influence of temperature in raising fluids into vapour has not yet been reduced to a law applicable to all fluids the qualities of which are understood. Dalton estimated with great care the relation of temperature on the vaporisation of water, and his labours give some facts which, if they only served the purpose (they do much more) of showing us the way to go, would be of extreme value. Thus, we learn that as at a temperature of 212° Fahr. water vapour supports the pressure of 30 in. of mercury, or the whole weight of the atmospheric column, so—

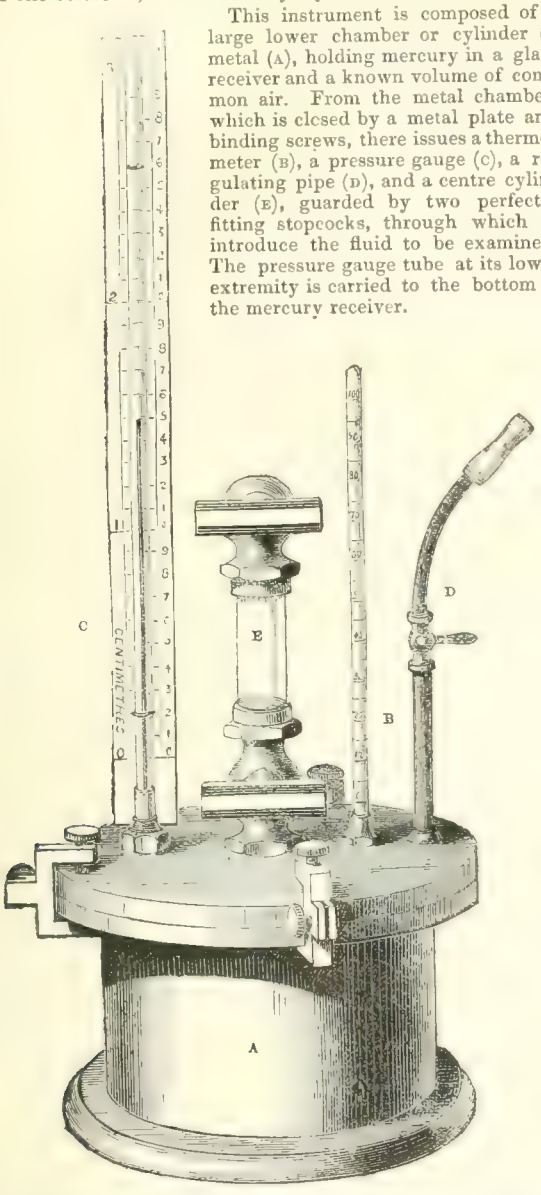
At a temperature of	80°	it supports	1	inch	of	mercury.
,,	,,	58·6°	,,	$\frac{1}{2}$	,,	,,
,,	,,	47·5°	,,	$\frac{1}{4}$	,,	,,
,,	,,	32°	,,	$\frac{1}{8}$	,,	,,

With regard to the fluids with which we are dealing, they evaporate, when exposed to the air, at all known natural temperatures. What extreme degree of cold would stop their evaporation we do not yet know, and for our present purpose it is not important to inquire. We ought, nevertheless, to have some knowledge of the influence of common temperatures in raising into vapour the anæsthetic fluids with which we are most familiar.

To arrive at this information, we look in vain for an answer by any shorter way than by experiment on each fluid individually. The composition of the fluid will not be a guide; for here are two fluids isomeric in character—viz., the acetate of methyl and the formiate of ethyl—the first of which requires a temperature of 268° Fahr. to overcome the resistance of the whole pressure of the atmosphere, the second only 121°. The specific gravity of the fluid is no guide. Ether is lighter than water, chloroform is heavier than water, yet both ether and chloroform require a lower temperature than water to resist the whole pressure of the atmosphere. Lastly, the density of the vapour itself is no sure guide; for although it has been argued that fluids yielding the densest vapours are most readily vaporisable, there is no rule on the subject, but numerous facts on the other side. Ether and chloroform at once come before us in evidence on this subject. Ether has a lighter vapour density than chloroform in the proportion of 37 to 59·75; but ether boils at 92°, and chloroform at 142° Fahr. On the other hand, alcohol, which has a vapour density of 23 only, requires a temperature of 172° Fahr. to overcome the full pressure of the atmosphere. Even when we are dealing with the same series of bodies, we are unable to find any distinct rule governing their resistance to pressure under the agency of heat. It has been urged that in particular series those in which the carbon molecule is increased require a higher temperature for resistance; and the large table before us, in which chlorides and alcohols and hydrides are systematically classified in respect to their physical properties, does show certain facts supporting this hypothesis. For example, methylic alcohol CH_4O boils at 151°, while ethylic alcohol C_2H_6O boils at 172°—that is to say, it requires 21° more of heat to overcome the whole pressure of 30 inches of mercury. Again, hydride of amyl C_5H_{12} boils at 86°, while hydride of caproyl C_6H_{14} boils at 154°; and, turning to the chlorides, here is bichloride of methylene CH_2Cl_2 boiling at 88° Fahr., while bichloride of ethylene $C_2H_4Cl_2$ refuses to boil until 87° more of heat are added. This looks something like rule, but as we cannot confine our inquiries to set series of agents, we must turn to particular experiment with each substance to see how temperature opposes pressure,

and raises particular fluids into vapours at degrees lower than the actual boiling point. Several instruments have been invented as aids to this inquiry, but the best for our purpose is the one before us, constructed by my friend Dr. Versman.

This instrument is composed of a large lower chamber or cylinder of metal (A), holding mercury in a glass receiver and a known volume of common air. From the metal chamber, which is closed by a metal plate and binding screws, there issues a thermometer (B), a pressure gauge (C), a regulating pipe (D), and a centre cylinder (E), guarded by two perfectly fitting stopcocks, through which to introduce the fluid to be examined. The pressure gauge tube at its lower extremity is carried to the bottom of the mercury receiver.



In using this instrument we first fix the temperature by placing the metal chamber in a required heat, and waiting until the thermometer tells us that the temperature within the chamber is what we wish to have—say 60°. This obtained, by forcing in a little air through the pipe D we bring the mercury up to 0 in the gauge tube, we close the regulating pipe by turning the small stopcock, and then we pour a measured or weighed quantity of the fluid to be tested—say chloroform—into the chamber through the cylinder in the centre, taking care not to open the lower tap until the upper one is closed, and, the fluid being thus introduced into the chamber, we watch the gauge. The fluid, introduced as described, coming under the influence of the degree of temperature marked by the thermometer, obeys that influence and yields so much vapour, which, meeting with resistance, presses upon the mercury and raises the mercury into the gauge-tube to a given height—a height easily measured by reading the scale. We note the pressure the known quantity of chloroform exerts at 60° as represented by so many centimetres, or, if we reduce to English, so many inches; and by modifying the temperature, but retaining the quantity of chloroform, in other experiments, we arrive at very correct conclusions respecting the influence of variations of temperature on this one fluid. We next proceed with ether and other fluids in a similar manner, and when we have collected the data we want, we arrange them in order, and from the particulars learn the general lesson.

ORIGINAL COMMUNICATIONS.

CASE OF DISEASE OF THE TRIFACIAL NERVE, AND OF THE GASSERIAN GANGLION.

By R. BEVERIDGE, M.B.,

Lecturer on Pathology, and Pathologist to the Royal Infirmary, Aberdeen.

A.B., aged 45, male, was admitted into the Royal Infirmary, under Dr. Harvey, complaining of anæsthesia of the left side of the face, affecting the brow, eyelids, eye, nose, and upper lip, these parts being completely insensible when touched, and partial anæsthesia over the lower part of the face, where sensation was much dulled, but not completely lost. There was no motor paralysis of the features, and on his admission no motor paralysis of the muscles of mastication. He stated that these symptoms had come on gradually, beginning with a feeling of prickling in the parts affected, followed by numbness and finally complete loss of sensation. After admission the disease continued to progress, involving the whole left side of the face, and producing also motor paralysis of the muscles of mastication of that side. The symptoms then present might be summed as follows:—Entire loss of sensation on the left side from brow to chin; conjunctiva and cornea of left eye completely insensible, no winking being produced by touching them, although the eyelids could be freely opened and closed at will; left nasal cavity and left half of the tongue considerably impaired in sensibility, but not absolutely destitute of it; sensation in the left auricle impaired, but not lost; hearing of that side impaired. It was not satisfactorily determined whether the senses of smell and taste were lost on that side or not; both seemed to be impaired. The vision of the left eye began early to be impaired, and, finally, was completely lost, the transparent structures becoming opaque, and, finally, hypopyon appearing. There was considerable emaciation of the left side, and, although the jaw continued to be moved by the muscles of the opposite side, yet the muscles of the affected side could be felt quite flaccid during these movements, and finally wasted considerably. The movements of the eye and those of the features were perfectly preserved. Lastly, the patient became dull and languid; partial loss of power over the muscles generally followed, and he sank gradually.

Post-mortem Appearances.—At the left side of the base of the skull was found a tumour on the trunk of the fifth nerve where it issues from the pons, and lying between the pons and the petrous portion of the temporal bone. This tumour was of a greyish colour, firm in texture, and conical in form. The narrow end, pointing outwards and backwards, corresponded to the point of emergence of the nerve from the side of the pons, while the anterior end, broad and blunt, lay immediately under the posterior clinoid process, and formed an indentation on the surface of the pons beside it, without, however, being in any way adherent to it. This tumour measured about an inch in length, was enclosed in a tube of arachnoid membrane like the nerve in which it was evidently formed, and was in no way adherent to any of the surrounding parts. From the middle of the outer side of the mass issued the nerve, of about its normal size, but firmer and harder than usual, passed under the edge of the tentorium, and then expanded into a flat, firm, somewhat oval mass, being the Gasserian ganglion enlarged, intermixed with fibrous tissue, and covered with firm adherent dura mater. This mass extended forwards nearly to the sphenoidal fissure, measured 0·9 in. in its greatest transverse diameter by 0·65 in. in its antero-posterior, and involved not only the ganglion itself, but also the ophthalmic branch, the commencement of the superior maxillary, and partly also of the inferior maxillary. Close to the sphenoidal fissure, the ophthalmic nerve, still larger than usual, lapped over the fourth nerve, concealing it from view, but not adhering to it, while underneath the latter lay the third and sixth nerves as usual. None of these at any point of their course were involved in the disease. The

internal carotid artery adhered slightly to the under surface of the mass, but retained its natural calibre. The right crus cerebri at its upper part, where it entered the optic thalamus, was thickly studded with bloody points, around which the tissue was softened. The same appearance occurred on the left side, but to a much greater extent, extending into and involving the lower half of the optic thalamus, together with the greater part of the crus cerebri. Rest of brain healthy. Orbit, nasal cavity, and mouth healthy.

This case is interesting, not only from the rarity of such lesions, but from its bearing on the physiology of the nerve affected. The affection of the muscles of the body generally which occurred at last, and was shortly followed by the fatal result, was doubtless due to the affection of the crura cerebri and optic thalamus; but the prominent symptoms during the disease were undoubtedly to be referred to the lesion of the fifth nerve. In the experiments on this nerve by section performed by Magendie and Bernard, the results produced were insensibility of the face, conjunctiva, nose, and mouth of the side operated on, together with lesion of nutrition, leading to opacity and ulceration of the cornea, and ulcerations of the lips and tongue, as well as paralysis of the muscles of mastication. This case exhibited nearly the same train of symptoms, only coming on gradually—the insensibility stealing slowly over the face, almost as the shadow does over the sun in an eclipse. This gradual approach corresponds with the post-mortem appearances, which seem to show that the different parts were not affected simultaneously, but in succession—first the trunk of the nerve, then the ganglion, and in each of these first the upper and inner part, and lastly the lower and outer. Thus, as thread after thread became involved, the insensibility, beginning in the forehead, gradually spread down over the face until the whole was affected; and finally, the motor root becoming implicated, the power over the muscles of mastication was lost. That sensation was not completely lost in the auricle, nasal cavity, and tongue, points out that these parts do not depend for their sensibility exclusively on the fifth nerve—the auricle receiving, in addition, the auricular branch of the cervical plexus; the nasal cavity, the olfactory and nasal branches of Meckel's ganglion; and the tongue, the glosso-pharyngeal, and perhaps branches from the sub-maxillary, ganglion; but the great impairment of sensibility manifested in the two latter situations shows that it is to the fifth nerve they mainly owe their power of sensation.

Another point of interest in this case refers to the impairment of nutrition. This did not appear at first, nor simultaneously with the loss of sensation at any spot, but came on subsequently, and advanced slowly and progressively, beginning like the insensibility above, and passing downwards. It was more marked in the eye than anywhere else. This would seem to correspond with the affection of the Gasserian ganglion at a period subsequent to that of the trunk of the nerve, and also to the circumstance that of the branches of the ganglion the ophthalmic was more affected than the other two; and if this interpretation be correct, it would support the view that, while the nerve itself, through its connexions with the brain, is the immediate channel of sensation and motion, it is the ganglion which directly presides over nutrition. The non-occurrence of ulcerations of the cornea, lips, and tongue, which so usually follow section of the nerve, was probably due to the slow coming on of the lesion, as contrasted with its sudden onset in the latter case, where this very rapidity would probably have the result of more effectually deranging the circulation.

The occurrence of deafness towards the end of the disease, interesting as showing the intimate connexion of the fifth nerve with all the senses, does not admit of so obvious an explanation as the other symptoms. The auditory nerve and the labyrinth were in no way affected, so that the deafness seemed to be due to the condition of the tympanum. This was completely filled with transparent mucus, a condition probably caused by paralysis of the palatine muscles, which would have the effect of allowing the Eustachian tube to remain closed, and mucus to accumulate in the tympanum. These muscles (levator and tensor palati) receive filaments from the fifth both directly and indirectly—directly from the lingual nerve, and indirectly through the otic ganglion. The circumstance of the deafness following the paralysis of the muscles of mastication would seem to connect it with paralysis of the motor root of the nerve, and so strengthen the above explanation. The lingual nerve is usually regarded as a sensory nerve; but it would thus seem probable that, like the other large branch of the inferior maxillary—the dental, with its motor mylo-hyoid branch—the lingual, though principally sensory, contains also motor filaments.

Whether there was any connexion between the lesion of the fifth nerve and the subsequent affection of the crura cerebri and optic thalamus may be doubted. Possibly, the compression of the cavernous sinus by the enlarged Gasserian ganglion, interrupting the return of blood through the inferior cerebral veins, may have had some effect in producing the lesion indicated; but, as it was present on both sides, it seems as likely to have originated independently.

Aberdeen.

TYPHOID IN THE TROPICS.

By WILLIAM H. STONE, M.D., F.R.C.P., etc.,
Health Officer and Secretary to the Board of Health in Trinidad.

The author of the "Historico-Geographical Pathology," in his able but voluminous work, has made a beginning in a department of inquiry which bids fair to prove of the deepest importance. Long as the special and peculiar character of diseases in different quarters of the globe has been recognised as a Medical fact, it is remarkable how little this study has been prosecuted, and how wanting in system have been the scanty efforts hitherto made in that direction. Comparative anatomy is already a familiar term; the advances made by parallel examination of living organisms in diverse regions and at widely separated epochs of the globe, furnish a fair chapter to the book of human knowledge. Comparative grammar and philology have, in the hands of distinguished scholars, taught us great lessons in a few years, and have afforded an insight into the manners and habits of races from which the many families and nations of the present day have originated. But comparative Medicine is under different conditions, and as yet presents few if any tangible results. It is not that we do not possess valuable and laborious works by Practitioners of ability and industry from nearly every country under the sun, or that observations accurately recorded are lacking of all modifications which climate and geographical position may impress on morbid states of the body. But the connecting link between these and our home experience seems feeble, and the absence of systematic methods of comparison renders much which has been ably and correctly written from tropical climates all but unintelligible to the sojourner in temperate zones of the earth. It is almost to be desired that an international College of Medicine could be set on foot similar to the educational scheme which has latterly been started under favourable and promising auspices. But in the meanwhile it is of essential service to a Practitioner if the opportunity be afforded him of studying disease as modified by climatic and geographical influences. Some diseases doubtless differ intrinsically and in genus, like the flora and fauna of distinct continents; others, again, though generically the same, put on varieties, in obedience to the laws of local causation, which may by chance have influenced them. A good case of the latter kind has, during the last six months, come under my own notice, to which it may be worth while to direct the attention of your readers.

When I arrived, towards the end of May, 1867, in the island of Trinidad, to perform temporary duties under Government, I found an epidemic of fever in full force, of a kind stated to be new to the locality. I was informed that it had commenced at the end of the year 1866, and had been steadily increasing since that period. After some hesitation, from the unfamiliar nature of the visitation, it had been decided by the great majority of the Practitioners to be typhoid or enteric in type; this opinion I was, through the courtesy of my brethren, soon able to corroborate by abundant personal inspection, and also to substantiate by the crucial test of post-mortem examination.

It soon became obvious that there is an initial difficulty in defining feverish disease in the West Indies, arising from the vague and indiscriminate sense in which the name is used. Almost every slight indisposition is, by the ordinary class of observers, set down to this cause; many of the older Practitioners, partly from reminiscence of systems of nosology now obsolete in Europe, and partly from the real fact that remittent types of fever are common, seem to have favoured the popular impression. Moreover, intermittent fever, though really a disorder of a totally different stamp, is common in many parts of the island, and impresses many complaints of a foreign nature with that curious periodicity which has often been described in other climates and localities. Even this real influence

is subject to habitual exaggeration; public opinion reports as symptoms of "fever" nearly every form of discomfort which accompanies the minor ailments of human life. The exaggeration is, however, more than pardonable in a locality where epileptic seizures occasionally usher in an ague, and where, as I learn from the authority of our ablest Surgeon, even orchitis at times runs a course distinctly marked by periodical remissions and exacerbations. It is hardly to be wondered that the practical corollary of such an epidemic constitution, and of such prevalent opinions, should be the very free, and perhaps indiscriminate, administration of quinine, a remedy which, on the whole, seems less of a panacea here than European impressions warrant.

Yellow fever again, though endemic and rarely absent in Demerara, frequent at the ill-chosen port of St. Thomas's, is comparatively rare in Trinidad. Here again there is room for fallacy from the fact that bilious remittent fever, and even occasionally typhoid, are complicated with jaundice and accompanied by black vomit. These cases are not infrequent in the island during the summer months and rainy season. It has been my duty as health officer to investigate several such, with a view to the imposition of quarantine. But I have not, as yet, been able to satisfy myself of the real presence of yellow fever in its true type. In Madeira I have before seen cases of the type named above which came from the adjacent African coast, and one which I attended during my residence in that island unfortunately proved fatal, though the patient was himself a Medical Practitioner. The distinction, however, between the two disorders has been well drawn out in Dr. Aitkin's excellent work, and is of most vital importance to a colony like this, inasmuch as real yellow fever is demonstrably infectious, whereas there is no ground whatever for such a supposition regarding even the severest, or, as they are termed, the pernicious, types of bilious remittents. Yet, I have frequently heard such cases called yellow fever since I have been here, and the neighbouring islands, especially those under French rule, have actually imposed quarantine on ships coming from our ports on that ground.

Notwithstanding the above causes of fallacy, I have no hesitation whatever in pronouncing the fever recently prevailing to have been typhoid or enteric. Many post-mortems at which I have been present place this fact beyond a doubt, the affection of Peyer's patches being extensive and characteristic, while the other signs of fatal disease, with the exception of slight congestive pneumonia, which has been common as a complication, have been conspicuous by their absence. The point of greatest interest has been the curious blending of remittent symptoms and consecutive splenic and hepatic engorgement with those of pure enteric fever, and the variety of masked forms which have resulted from the admixture. In some instances remittent paroxysms have gradually merged into continued fever, and in others, though the access has been that of enteric fever, distinct remission has set in towards the period of convalescence.

These facts, which I hope to give in fuller detail hereafter, are interesting in several ways, as additional instances of the coexistence of two morbid poisons in the system, as tending to clear up the somewhat obscure subject of tropical fevers—a subject which, as I have already hinted, seems hitherto to have been regarded too much in the light of a specialty; and, lastly, the cases offer a valuable commentary on the discussion which took place not long ago as to the value of quinine in enteric fever. Dr. De Verteuil, one of the oldest and most experienced Physicians of this colony, has made precise observations on this point, which I, from personal experience, have since been able fully to corroborate. Exactly as the remittency of the illness merged itself into a continued type of enteric, so did the quinine become powerless, and even injurious. When the latter disease was once established, this was most marked; but if, towards convalescence, remittent symptoms again predominated, the drug, in a similar ratio, began to reassert its specific therapeutic virtues.

PHYSICIANS' FORTUNES.—The wills of the following gentlemen have just been proved at Doctors' Commons:—That of Charles Giles B. Daubeny, M.D., F.R.S., of the University of Oxford, under £25,000; Alexander J. Sutherland, M.D., F.R.S., under £40,000; J. L. Morgan, M.D., of Haverfordwest, under £35,000; and John Knox Vace, M.D., under £18,000. It therefore appears that the fortunes of these four Physicians amounted to the large sum of £118,000, or an average of £29,500 to each.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

THREE CASES OF "PAINFUL STUMP."

THE result of the progress of modern Surgery has been to render men more daring in the use of the knife where it is really wanted, but to keep it inactive unless upon ample cause for its exercise. Human limbs are much more respected and cared for than they used to be, and human eyes are not, now-a-days, so frequently offended by beholding stumps. A cry for conservative Surgery has arisen, and now the Surgeon excises the diseased joint, or picks away its fragments shattered by an accident or a gunshot, preserving the otherwise healthy limb; whereas a Surgeon living thirty years since would have amputated immediately, and would have thought at the same time that he was wonderfully benefiting the patient. But, in spite of all conservative Surgery can do, amputations are still necessary and quite imperative in some instances. Where gangrene has taken place, and a line of demarcation has formed, where the limb has been irredeemably shattered by a cannon-shot, or where a severe compound fracture and tearing of the main vessels and nerves has occurred, amputation must be resorted to as the only means of saving the patient's life; for, as Dionis says, "it is better for a patient to live with three members than to die with four." Stumps, therefore, must occasionally be made. Unfortunately some of them, however well the amputation may have been performed, become "painful," and utterly unsuited for the application of an artificial limb, giving both the patient and Surgeon great trouble. Sometimes this irritable and painful state of the stump arises from the nerves getting entangled in the contraction of the cicatrix, sometimes from neuralgic affections of the nerves themselves, sometimes from caries or necrosis of the extremity of the bone forming the stump, and occasionally from the low ebb of health the patient has reached, and hysteria. In all these cases the Surgeon has to interfere, and he but too frequently fails to give much, if any relief, save in those cases in which, dead bone being the cause of irritation, it may be removed. Some poor wretches have been subjected to amputation after amputation, extending from the middle of the leg to the hip-joint or from the forearm to the shoulder, but all without success, for the relief from the pain, more particularly those whose pain is due to some morbid affection of the nerves. Occasionally it is possible to dissect the neuroma from the substance of the nerve itself, but in too many instances nothing can be accomplished that gives any hope of remission of suffering.

The following cases have been recently admitted into King's College Hospital, and show a fair example of what may be expected to be achieved in the way of curing "painful stumps."

(Under the care of Sir WILLIAM FERGUSSON.)

Case 1.—Alexander S., aged 47, was admitted into the Victoria Ward, under the care of Sir William Fergusson, with painful stump of the right thigh, on January 23, 1868. In February, 1866, his limb had been amputated by Sir William for chronic disease of the right knee-joint. At this time, so great was the disorganisation, not only of the joint itself, but of the neighbouring soft parts, that the line of amputation was carried as high as the upper part of the middle third of the thigh. The patient was very long in getting well after this operation, but eventually he was discharged, and has since resided in the country. But the stump has always troubled him, it being extremely tender, subject to paroxysms of violent neuralgic pain, and spasms, with twitchings of the muscles. He at last came to town again for further advice, and was admitted as above.

On Admission he presented a haggard appearance. The stump was rather conical in form, and very painful. There were two sinuses, one on the inside and one on the outer side of the line of the cicatrix. The patient complained very much of pain and of starting of the stump.

January 25.—Chloroform being given, the stump was opened up, and a large abscess found at the back part running down to the bone. About an inch of the femur, very conical in shape, was removed, together with some thickened tissue from its neighbourhood.

26th.—The patient complained of great pain and spasmodic jerking of the stump. Bowels not opened. Ordered ol. ricini ʒj.

February 4.—The patient was decidedly better. The wound looked healthy, and there was but little pain; there has been no more spasm.

10th.—Wound was healing fast.

(Under the care of Sir WILLIAM FERGUSSON.)

Case 2.—William K., aged 56, a carpenter, was admitted into the Victoria Ward, under the care of Sir William Fergusson, with painful stump of right arm, January 4, 1868.

About three years ago the right hand was cut off at the wrist by a sawing machine. A secondary amputation was then performed by a Surgeon in the middle of the forearm. For some time the patient went on well, but in the course of a month or two he began to suffer much pain in the stump. This pain increased in severity, and the muscles of the arm began to twitch violently and constantly. He sought Surgical aid, and another amputation was resorted to, this time in the upper third of the humerus. The wound healed, but the stump was as painful and troublesome as the former.

On Admission.—Is a careworn man, and complains of constant neuralgic pain in the extremity of the stump of his right arm. This stump may be noticed to twitch violently at intervals. There is, towards the back and inner side of the arm, a tumour about the size of a walnut, which seems involved in the cicatrix, and which is very tender.

January 18.—The patient being placed under the influence of chloroform, the cicatrix was opened up, and the tumour removed. It was found, upon examination, to consist of a bundle of interlacing nerves, with bulbous extremities. These nerves were bound together with fibrous tissue, and were implicated in the cicatrix.

20th.—The operation seems to have been of no avail, as the patient complains of the excessive pain as much as ever. He says "he feels as if a hundredweight were hanging to his arm."

February 7.—Wound healed, but stump as painful as on admission. Discharged.

(Under the care of Mr. HENRY SMITH.)

Case 3.—William G., aged 45, single, a knife-grinder, was admitted, under the care of Mr. Henry Smith, with a painful stump of the right foot, January 1, 1868.

He states that a twelvemonth since he hurt his right foot, which then swelled up very much, looked very red, and finally became dusky in colour, while his toes became perfectly black. (Query: Did he not get his foot frost-bitten in last winter's severe weather?) He applied to the union, where a Surgeon removed the four smaller toes. A week afterwards, the great toe was amputated. The stump healed well for some time; but just as the cicatrix was forming, an abscess appeared, and broke over the root of the great toe. This left an open wound, which will not heal. The stump is very painful.

Present Condition.—The patient is a strong healthy man, with a large ulcer, about the size of a two-shilling piece, situated over the stump of the great toe on the right foot. On passing a probe into the wound, no dead bone can be felt; but the foot is much swollen and inflamed.

January 18.—Chloroform having been administered, Mr. Henry Smith performed amputation of the metatarsal bones, cutting through them just in front of their bases.

On examining the portion removed, it was found that there was an abscess in the proximal end of the metatarsal bone of the great toe, lined with strumous material, and that the line of amputation had just cleared this, so that the whole of the disease was removed. There was an opening through the bone, but this was very small—so minute, indeed, was the external hole that, though a probe could be passed along the canal from the abscess to the exterior of the bone, yet no probe could be pushed from the exterior into the abscess on account of the difficulty of discovering the minute external aperture.

20th.—A portion of the flap near where the ulcer was has a sloughy appearance, and the stump is spasmodically shaken when touched with the fingers.

21st.—The House-Surgeon removed small piece of slough this morning.

24th.—All the sloughs have separated, and the wound looks healthy.

27th.—The stump is injected with a solution of Condy's disinfecting fluid when it is dressed. The wound is healing.

February 10.—Wound nearly healed. Patient complains of no pain. Discharged.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(*Continued from page* 145.)

Case 100.—*Adherent Multilocular Cyst—Ovariotomy—Recovery.*

An unmarried seamstress, 42 years of age, was sent to Mr. Wells by Dr. Livy, of Bolton, and was admitted October 24, 1867. The abdomen was filled by a multilocular cyst, which pushed the apex of the heart a little upwards—namely, to the fifth intercostal space. The girth at the umbilical level was forty-one inches; distance from sternum to pubes eighteen, and from one ilium to the other across the front of the abdomen twenty-four inches. The uterus was high, and a hard portion of the tumour could be felt between the cervix uteri and bladder, movable there independent of the uterus. The disease has been very slow in its progress, swelling having begun thirteen years ago, and gradually increased without pain till nine years ago, when pain began in the left lumbar and iliac regions, and often recurred with nausea. Increase was slow till three months before admission, when the catamenia, which previously had been quite regular, ceased. After the cessation, increase had been rapid. The general health was fairly good.

Ovariotomy was performed on November 6, 1867. Chloromethyl was administered by Dr. Junker, with the effect of producing complete and very quiet anæsthesia. A cyst, adherent anteriorly over a large surface, was exposed by an incision five inches long, the adhesions broken down, a large cyst tapped, emptied, and drawn out with groups of secondary cysts. The pedicle was broad at its insertion, but became cordlike nearer the uterus, and was secured in a small clamp at least three inches from the left side of the uterus. There was scarcely any blood lost. The right ovary was healthy. Twenty-eight pints and a half of fluid were measured, and the cysts and solid matter weighed over a pound and a half.

Recovery was unchecked; only two small opiates were given. There was some sickness on the first and second days after operation, but the highest pulse noted was 102, and highest temperature 101·0°. The clamp was removed on the third day; the bowels acted on the eighth. The patient left the Hospital in good health twenty-seven days after operation, and has been heard of since as quite well.

On the completion of 100 cases of ovariotomy in the Samaritan Hospital, Mr. Wells gave a short account of the progress of the operation in London Hospitals. When he performed his first operation in February, 1858, ovariotomy had only once been performed successfully in any of the large Hospitals of the metropolis, and that solitary case was in 1846, or twelve years before. For twelve years—or from 1846 to 1858—there had not been a single successful case of ovariotomy in any of the large Hospitals of London; yet in less than ten years after 1858, he (Mr. Wells) had himself, in this small Hospital, completed 100 cases, with a result of seventy recoveries and thirty deaths—a result which ten years ago would have been regarded as incredible, but which the experience of the past teaches us will become still more encouraging in the future.

After performing the first operation in the Hospital this year, Mr. Wells again recurred to this subject, and exhibited the following table of his Hospital cases, from the first in 1858 till the last in 1867:—

Year.	Cases.	Recoveries.	Deaths.
1858 . . .	3	3	0
1859 . . .	7	4	3
1860 . . .	2	1	1
1861 . . .	6	3	3
1862 . . .	13	10	3
1863 . . .	16	11	5
1864 . . .	13	10	3
1865 . . .	14	11	3
1866 . . .	11	6	5
1867 . . .	21	17	4
	106	76	30

He said this table proved that a much greater success has been attained in 1867 than in any preceding year; and if the cases are divided into two nearly equal series, by comparing the 47 cases up to 1863 with the 59 cases since, it will be seen

that there were 15 deaths in each series—15 deaths and 32 recoveries in the 47 cases, 15 deaths and 44 recoveries in the 59 cases.

These results may be compared with those in some of the larger Hospitals by means of a table given by Dr. Skoldberg, of Stockholm, in a treatise which he has recently published in Swedish, entitled "Om Ovariotomi." In this table he gives the statistics of ovariotomy in the following Hospitals up to November 1866:—

Hospital.	Cases.	Recoveries.	Deaths.	Mortality per cent.	Authority.
St. Bartholomew's	12	4	8	66·67	Mr. Willett.
Middlesex	8	1	7	87·50	Dr. Hall Davis.
King's College	7	1	6	85·71	Dr. Priestley.
St. George's	7	2	5	71·43	Dr. R. Lee.
University	5	1	4	80·00	Mr. Erichsen.
Total	39	9	30	76 92	

Dr. Skoldberg also gives the statistics of ovariotomy in Guy's Hospital, on the authority of Dr. Braxton Hicks, as 44 cases, with 23 recoveries and 21 deaths—a mortality of 47·73 per cent.; and explains this mortality, so much *more* favourable than that of the other large Hospitals, but so much *less* favourable than the results obtained by Mr. Spencer Wells in the Samaritan Hospital, and by Dr. Keith in a small private Hospital in Edinburgh, by the fact that many of the precautions taken in the small Hospitals are observed more carefully in Guy's than in the other large Hospitals. The results are very striking.

	Cases.	Recoveries.	Deaths.	Mortality per cent.
Five large Hospitals	39	9	30	76 92
Guy's Hospital	44	23	21	47·73
Samaritan Hospital	106	76	30	28·30

In reply to a question, last Wednesday, on the comparative success of ovariotomy in Hospital and private practice, Mr. Wells said the experience of the Samaritan Hospital proves that it is possible to obtain as good, or nearly as good, results in a small Hospital as in a private house, for his own success in Hospital and in private practice has been almost the same. He has completed the operation in 250 cases, with a result of 180 recoveries and 70 deaths—a mortality of exactly 28 per cent. But the results of the later cases have been much more favourable, for of the last 50 cases only 8 have died and 42 have recovered—a mortality of only 16 per cent. He believes that even this mortality will be still further reduced.

We shall be glad to receive information as to the results in other Hospitals—St. Mary's, the Westminster, St. Thomas's, the London, and Charing-cross.

(*To be continued.*)

Mr. Spencer Wells has been elected an Honorary Fellow of the Obstetrical Society of Berlin.

The Paris Infant Protection Society.—This useful Society has just held its third annual meeting. M. Alexandre Mayer, its secretary and founder, states that its progress is most encouraging, new subscribers rapidly joining it, and similar societies having sprung up in all the large towns. Still, he observes, they are only at the commencement of the hard battle which has to be fought with the cupidity and dishonesty of nurses and the *bureaux* which supply them, and which refuse to submit to inspection on the part of the Society. Worst of all are the apathy and cruelty of many of the mothers among the lowest classes, who seem utterly destitute of maternal feeling. The nurses, too, require protection, as they are often themselves, when honest, victimised. The Society derives immense aid from the gratuitous services of its Medical inspectors scattered over the localities frequented by the nurses, and, indeed, without their aid we do not see how it could carry on its operations at all. The three medals offered for the best essays on "Maternal Suckling," have been warmly competed for, and several money prizes were publicly bestowed on nurses who had distinguished themselves by the number or the condition of the children they had reared, usually simultaneously with their own offspring. The only unpleasant feature in the report is the proposal to hold a baby-show; and even that, in the case of nurse-children, will have a significance not possessed by the ridiculous exhibitions of the kind formerly held here and in America.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 22, 1868.

HEALTH OF THE NAVY.

The "Statistical Abstract of the Health of the Navy for the year 1866-67," not long since issued by Dr. Mackay, is the latest of a series of official documents of the utmost public interest. In one sense it is of more value than the full statistical report (the most recent whereof appeared last autumn, relating to the remote period of 1864), inasmuch as its facts, although necessarily condensed and having reference only to the outline of what is subsequently filled in with elaborate detail, supply a general view of the sanitary condition of the service, and of the health of the men up to the comparatively modern date of the middle of last year.

Regarding the ten or eleven millions which are voted every year for the Navy in the light of an insurance premium, it follows as of the first consequence that the service should be maintained in a state of thorough effectiveness; otherwise the security for which we bargain becomes a matter of chance—the parallel would be that of insuring against fire in an insolvent office. And how much effectiveness is dependent on the care taken for the health of the men we need not stop to demonstrate; the incompatibility of a heavy sick list with efficiency is self-evident. We can therefore hardly imagine a more pleasing duty than Dr. Mackay has had to perform in stating that despite the fact that "diseases of a more or less fatal nature prevailed in an epidemic form on almost every station on which the ships of the Royal Navy are employed," the ratios of cases entered on the sick list, of invaliding, and of mortality, during the twelve months ending June last, were the lowest that had occurred during a period of eleven years. Cholera was epidemic on the Home, the Mediterranean, and the South-east Coast of America stations; yellow fever in the West Indies; small-pox was very prevalent in China and Japan; fever prevailed more or less extensively on the Pacific, East Indies, and Cape of Good Hope stations.

That the risks to which the different squadrons were thus exposed were so satisfactorily encountered, Dr. Mackay attributes mainly "to the wise discretion displayed by commanding officers in preventing, as much as possible, communication with infected localities, to the watchful care exercised by the Medical officers over the different ships' companies, and to the prompt and judicious manner with which the first indications of disease were dealt with."

This tribute, the justice of which is undeniable, will, we trust, have its proper weight with the naval authorities when questions come before them for decision in reference to the position and pay of Navy Medical officers.

During the year 1866-7 the mean strength of the force was

50,275, and the following are the rates of sickness, invaliding, and death, on each of the ten stations over which the force was distributed :—

Stations.	Ratio per 1000 of Mean Strength. Cases of Disease & Injury.	Invalided.	Deaths
Home	911	21·9	6·7
Mediterranean	1344	31·5	6·5
N. America and W. Indies	1372	25·6	13·0
S.E. Coast of America	1455	28·8	9·0
Pacific	1807	30·7	8·1
West Coast of Africa	2128	74·0	22·6
East Indies and Cape of Good Hope	1761	43·2	14 8
China	1655	57·4	26·7
Australia	1585	15·3	17·3
Irregular Force	1606	22·7	12·4
Total	1265	28·7	10·4
Mean of 1857—66	1474	36·5	15·6

Comparing the year 1867 with the preceding twelve months, we observe a reduction in the ratio of cases entered on the sick list on all excepting the Pacific and Australian stations. The ratio of invaliding has diminished in all except the Home, Pacific, East Indies and Cape, and China stations; the death ratio increased on the Home, North America and West Indies, China, and Australian stations.

With regard to a subject on which some anxiety has at different times been expressed—namely, the hygienic qualities of our ironclads—it is satisfactory to find that they do not compare unfavourably with those vessels which yet represent the "wooden walls of old England." In his preceding report, Dr. Mackay remarked that the ratio of cases placed on the sick list was lower in the ironclads than in any other class of seagoing vessels, with the exception of the second-rates. Last year the ratio of cases in the ironclads was slightly above that of the previous twelve months, in consequence of one or two of the vessels being newly commissioned, and furnishing a number of trifling cases of disease—a common occurrence under such circumstances.

It has, however, been pointed out in former reports by Dr. Mackay that "it is upon the nature of the station and the character of the duties upon which men are employed, rather than the construction or class of vessel in which they may be serving, that the sick-rate of the Royal Navy depends;" and the truth of this observation is apparent on glancing over the variable conditions of service on the different stations, as indicated by the report now under consideration.

At home a noticeable feature is the comparative freedom of the service from the cholera epidemic which prevailed extensively at Portsmouth and other places with which the fleet were in communication, but which, thanks to judicious instructions, prompt attention to trifling cases of diarrhœa, and other sanitary precautions, only caused a few cases on board ship. The fact that epidemics of scarlatina and other communicable diseases are of frequent occurrence in the training ships for boys, points to the undesirability of stationing such vessels "at seaports where infectious disease is rarely absent." The results which have attended the operation of the Contagious Diseases Act, we shall discuss on a future occasion. We may, however, mention that starting from the first six months of 1864, when the ratio of syphilitic cases treated to 1000 of mean force was 130 there has been a constant decline to a ratio of 49 in the first six months of 1867.

On the Mediterranean station an outbreak of cholera took place on board the *Resistance* when stationed at Naples in the September quarter of 1866, the disease being at the time epidemic on shore. Strict measures of isolation, disinfection, and ventilation soon cleared the ship of its unwelcome visitor. A fatal case of cholera occurred about the same time in the *Tyrian* gunboat during a voyage from Galatz to Constantinople. A prisoner was sent on board from another vessel, where he had suffered from choleraic symptoms, with spasms, collapse, etc., and on his arrival on board the *Tyrian* a note was made that he was suffering from obstinate vomiting. He was kept on the upper deck, and recovered; but on the third day after his reception into the *Tyrian* the Medical officer of that vessel was seized in the early morning with symptoms of cholera, and died in six or seven hours.

On the North American and West Indian station yellow fever appeared in the *Cadmus* and *Doris;* an epidemic of ephemeral fever on board the *Jason;* and a severe epidemic of remittent fever on board the *Nimble*, which is attributed to the exposure to which the men were subjected in consequence of the vessel having been blown on shore in a hurricane in Nassau harbour, where she remained for fifty-three days in six feet of water.

On the Pacific station the ratio of cases entered on the sick-list was the largest that had occurred for many years; it was due chiefly to epidemics of influenza, remittent and ephemeral fevers.

The squadron on the West Coast of Africa was more healthy than during the previous year. An extensive epidemic of influenza occurred in one vessel, and in all "the most prominent affection was the ordinary coast fever, which, indeed, caused one-third of all the mortality from disease that occurred on the station."

The *Octavia*, belonging to the East India and Cape of Good Hope squadron, suffered from an epidemic of small-pox in the beginning of 1866; subsequently a severe epidemic of remittent and enteric fever broke out, placing no less than 307 cases on the sick list. This epidemic is attributed to "slight malarial influences acting upon a debilitated and unacclimatised body of young men, and in some cases, as in those of attendants on the sick, the disease is thought to have been propagated by infection."

Syphilis continues to be the bane of the Japanese ports, and, with smallpox, is most prejudicial to the health of the force on the China station. 136 cases of small-pox altogether occurred in the squadron in that quarter of the world.

We regret to observe so many as 71 deaths in the Navy resulting from "drowning," a number which amply testifies to the necessity for requiring every sailor to be able to swim.

The general tenor of the report is unquestionably satisfactory; it shows that the naval authorities are fully alive to the importance of considerations affecting the health of the force, and their desire to reduce the casualties incidental to the service within the lowest possible limits.

HURRIED TO DEATH.

We often hear such an expression as "how fortunate to be in time!" in a railway-carriage, just as the door is being slammed, and the signal flag of the guard is waving "all right." The expression may come from a hale young passenger, who has had a run for it, and, beyond being for a moment or so out of breath, will perhaps be none the worse for his extra exertion. Unfortunately, however, this is not always the case; for we have too often sat opposite persons who have just caught the train, and have sunk exhausted and breathless into their seat with a ghastly smile of self-congratulation, muttering something about their luck in sentences that are broken at every word by their laboured respiration.

It is painful to see an unsound horse urged beyond its speed; the thoughtless driver little imagines the agony he inflicts on his best of servants, until he realises within his own chest the fearful struggle, that ensues in over-exertion, when the blood or air meets with obstruction in the passages of the heart and lungs.

In the old coaching time, there was none of that hurry and bustle which now characterises our present mode of travelling by rail; passengers leisurely took their places, or were booked, perhaps a day or two previous to their departure, and they

had to be at the office some little time before the coachman mounted his box, to see that their luggage was all right. At the cross-road or at the wayside inn, they were generally before the time listening for the horn. If they posted, then they could choose their own time; and if they went by the wagon, they had still less occasion to hurry themselves. Now all classes enter the same train; all alike hurry to one spot, with one object, to save the train. Everything is changed, even our bodies are changing; *tempora mutantur, et nos mutamur ab illis;* for all this striving to do certain distances in certain given times has engendered an irritability in our organs which has told upon thousands, and will tell upon thousands more. Many a brain and spinal cord has suffered from the vibratory motion of railway carriages, which sometimes lasts for days after a journey; a limb, the nerves of which have been weakened by disease, often retains a feeling of this motion for many hours after, and severe neuralgia has been known to be the sequel. The action of the heart is often quickened, and the organ becomes more sensitive in some individuals, especially those of a nervo-sanguineous temperament. The stomach is not unfrequently upset in a manner similar to what was experienced on the road when we sat with our backs to the horses. Now, all these things are more or less inevitable, since we cannot do without railway travelling, and railway travelling cannot be accomplished without vibration, whatever improvement in this respect may be accomplished in the course of time.

To obviate many of the inconveniences, which are experienced, the railway traveller should know not only what he ought, but what he ought not to do. We will, therefore, now try to impress upon him the necessity of avoiding one thing, which he too frequently and thoughtlessly does to his great inconvenience when in health, and to his peril when unsound.

It would be interesting to know, as a statistical fact, the number of persons that have fallen down dead whilst hurrying to the train. Most of us can remember some friend or acquaintance, who has overdone himself by this unwise haste, and even if death have not taken place at once, a fatal warning has been given, which, if unheeded, sooner or later must be followed by fatal consequences. No one can estimate the amount of disease that has been revealed, we will not say developed, on the platform or in the railway-carriage; for there many a person who previously had prided himself on being as sound as a bell, has found, to his utter dismay, a flaw where he least expected one.

Whether a person be diseased or sound, one law must always be remembered—never to overexert oneself when the stomach is full. If we want to break our horse's wind, we need only to urge him to the top of his speed immediately after he has been fed and watered. Unfortunately, this is exactly what hundreds of people do to themselves every day. When they have injured themselves, or, at least, so soon as they have discovered that they have done so, they come to our consulting-rooms, and, whilst the evil is present, subscribe to our rules and follow our prescription; but even these forget at times what they carry about with them, and thoughtlessly risk their lives by acting in opposition to our precepts in the hurry of business or pleasure.

It is said that the road to the heart is through the stomach, and undoubtedly there is a great deal of physiological truth in the assertion. The communication between the two great organs may not be exactly direct, but certainly they are intimately connected by the nervic telegraph of the pneumogastric and its associates. A good appetite, good food, and a good digestion combined conduce much to a happy state of body, in which the heart and brain participate. The messages from the stomach to the heart are full of peace and quietness, and the heart, in its turn, sends more generous fluid to the remotest parts of our bodies, the comforting effects of which are soon appreciated by the whole system. So far all is well, and it would be well to let it so continue.

A boa constrictor does not hurry himself either over his meal or after it, a lion seeks rest when he has satisfied his appetite, and the cow lies down and chews the cud when she has cropped sufficient herbage to supply her wants; but rational man fills his stomach with breakfast, and before his mouth is even empty rushes off to catch the omnibus or the train; during a long journey he will hasten into a refreshment-room, swallow as much indigestible matter as possible, wash it down with some tepid drink, and then speed away to his seat when the bell rings, and think he has done justice to his stomach. Poor, ill-used, misunderstood stomach! If there is an organ in the body that is more intolerant than another of hurry and bustle, it is the stomach: man is the only animal that really treats it badly. We hear of some people loving their stomachs, but surely they show their affection after a peculiar fashion; and certain it is that they often carry about with them marks of the retributive justice of an oppressed and injured organ. Before the heart and brain were the stomach was, and this one fact alone is enough to prove its all-importance in the animal economy; no proof, however, is required, for every one acknowledges the fact, and straightway goes away and forgets it. *Plus occidit gula quam gladio*, we remember as an example in our Latin syntax, and have often reflected how much truth the sentence contains.

We all know how difficult it is in this more than ever striving world to do exactly what is right and proper towards the preserving our health. We must hurry, we must bustle, we must travel by railways, we must read, write, and otherwise work our brain all day long; and yet to do all this we ought to keep ourselves perfectly well. A large number of us, however, signally fail in doing so, and, in too many instances, from not being true to our natural instincts.

Our object now is to warn that increasing class of the community—travellers—against imperilling their lives by thoughtless hurry and exertion when the stomach is full. Breakfast is a meal of the greatest importance, and its digestion ought never to be interfered with; it ought never to immediately precede a journey or a walk; and if the time of the one is unalterable, then the hour of the other should be made either earlier or later so as not to clash with exertion. The French have a sensible mode of taking a little coffee, with something exceedingly light, when they first arise, and after they have been to their place of business and arranged the order of the day, they then go and enjoy a quiet breakfast, which they allow gently to digest before they again tax either the physical or mental powers. Persons, part of whose business it is every day to travel either by omnibus or rail, ought never to be at fault; they have only to regulate their principal meals so as to give themselves ample time between finishing them and starting, and to avoid all hurry.

If these precautions are necessary for the sound, how much more so are they for those whose organs are impaired! Among this class, occasional travellers by train suffer more than the daily *habitués;* but all suffer who do not take the greatest care. We all know how soon the organ of digestion can be thrown out of gear by a sudden mental emotion, and how soon the heart participates in the upset. Sudden exertion, however, not only arrests digestion and agitates the heart, but increases the activity of both the circulation and respiration, and thus demands extra work of them at a time when new material is being poured into the blood, the volume of which is increased by the fluids of the meal. A heart, therefore, that can only just barely perform its routine duties, if called upon to meet emergencies, is sure to fail, and the more it strives to overcome obstruction, the more it complicates matters. Therefore, as it is removed from our will, it becomes all the more imperative for us to regulate that over which we have control, and which in its turn controls, independently of the will, the action of such an important organ as the heart.

Constant irritation of the heart by an abuse of the functions

of the stomach is prone to induce real cardiac disease, and when once that is established no amount of care can restore it to its normal condition, and our only hope remains in avoiding all circumstances which may excite the elements of disease which have been implanted in it. Only a short time ago we had an example of how a contravening of the homely precept of never to hurry on a full stomach can bring quick punishment on those who heed not a timely warning. A woman with a narrowing of the chief artery of her body just as it springs from the heart hurries to a railway station immediately after a hearty meal. She succeeds in catching the train, but she loses her life. The full stomach, the diseased vessel, and the sudden emotion, were enough, and are too frequently enough, to bring about such a catastrophe, without calling to their aid the air, foul as it undoubtedly was, of the Underground Railway.

Last week an inquest was held upon a well-known farmer in Somersetshire, who, shortly after entering a railway-carriage, suddenly felt a tickling in his throat, vomited blood, and died before assistance could be rendered. He had been accustomed to the old-fashioned mode of going to market, but since the opening of a new line of railway in his neighbourhood he had availed himself of it, and, hurrying to catch the train, found too late that he had carried about with him for years, in his most vital organ, an unsuspected flaw, which required only hurry to become fatal.

THE WEEK.

TOPICS OF THE DAY.

The first debate on the Scottish Reform Bill took place on Monday night without throwing much light on the probabilities which at present attend Northern University representation. The Lord Advocate and the Chancellor of the Exchequer both expressed the goodwill of the Government towards the Universities. The former, however, took the ground occupied last session by Mr. Disraeli, that it was only since the changes introduced in their constitutions since 1858 that these bodies had attained a position which entitled them to become independent constituencies. We need hardly say that if this is the only ground on which representation is to be granted, it will certainly be fatal to the hopes and rights of the St. Andrews graduates. But is it true that the Scottish Universities occupy now such a totally different position from that they held before the Scottish University Commission? We do not know that their educational results have in numbers risen to a markedly higher level since that time, or that the Universities have turned out men more distinguished in arts, science, and literature. If the representation of Universities is one of the needed compensations in the machinery of a future democratic government, it at least should be made to include all who have taken degrees, and thus have given proof of the possession of a considerable degree of mental culture. This, indeed, is the sole argument on which Mr. Disraeli supported the proposed University representation against the attacks of Mr. McLaren. After stating that the Government had no interest in the matter, he said:—"We believed we were making a proposition which would be acceptable to the House, and that a constituency of educated and learned men would send to Parliament representatives who, even though they were opposed to the Government, would do honour to the House." In this we heartily concur, but we add the larger such a constituency is the better. Mr. McLaren opposed the proposal of granting two University members to Scotland, which returned only sixty other members, whilst England, returning 500 members, had only five to represent her Universities. This certainly seems to us an argument for increasing University representation in England, rather than for denying to Scotland the small boon of two seats for her four Universities. But we may expect that the whole subject will be thoroughly discussed in committee.

A member of Mr. Lowe's committee has written to the *Times* deprecating all personal and critical attacks in the contest for the seat of the University of London. It is to be hoped that the election will be conducted on the general principle of University elections, but it is surely not to be expected that either graduates or writers in the public press will be silent on what they conceive to be the merits of the respective candidates. If the graduates import into it the same good breeding, with any approach to the life and zeal which have been thrown into some of the struggles for the old University seats, the contest will assuredly be one of the most worth watching of the approaching general election.

The meeting of the Royal Society of Edinburgh, which took place on Monday last, was the first since the death of the late President, Sir David Brewster, and was signalised by an address by Sir James Y. Simpson, Sir David's Physician and intimate friend, on the character and life of that great philosopher and admirable man. We regret much that want of space prevents our transferring the address entire to our columns. It must suffice to say that it is an able and eloquent tribute to Sir David Brewster's character, not only as an interpreter of the secrets of nature, but also as a firm and consistent believer in the revelation of Himself which the Great Author of Nature has given to mankind in the Christian religion.

In consequence of the proceedings at the special general meeting of the Governors of the British Lying-in Hospital, we are informed that Dr. Eastlake resigns his Physiciancy to that Hospital. We are also informed that Dr. Eastlake will bring the whole matter of his treatment in the affair of the British Lying-in Hospital and the Ladies' Medical Society before the Metropolitan Branch of the British Medical Association at an early date. We do not think that he could take a wiser course.

One solicitor at least, Mr. Walter, contests the coronership for West Middlesex with Drs. Hardwicke and Diplock. The split in the Medical camp no doubt has encouraged him to take this course. The nomination took place on Wednesday, at Brentford, when the ceremony seems to have been accompanied by all the noise and vivacity which rendered so memorable a similar proceeding at the borough of Eatanswill. Mr. Cooper, of Brentford, proposed, and Mr. W. T. Farnell seconded, Dr. Hardwicke. Mr. Walker, of Chelsea, proposed, and Dr. Daniell seconded, the nomination of Dr. Diplock. The legal candidate also found a proposer and seconder. The show of hands was declared to be in favour of Dr. Diplock, but a poll was demanded on the behalf of Dr. Hardwicke. The election will be decided before this paper is in our readers' hands.

From Sir J. Pakington's reply to Lord E. Cecil, it appears that Government are disposed to supply funds for the extension of the Contagious Diseases Act. That the provisions of the Act will be extended to the civil population at present is not very probable, although it is likely that the subject will be discussed by the present Parliament. We notice that an influential meeting of the association for securing such extension was held on Wednesday at the residence of Mr. Milford, M.P. But the extension of the provisions of the Act to all military and naval stations is almost certain, and this alone must in some degree diminish the evil. Windsor has recently been added to the stations under its operation.

Education of all sorts, and for all classes, is undoubtedly the topic of the day. Politicians talk of it as a necessary muzzle for the lower orders now that they have been unchained by the Reform Bill. A new kind of middle-class education has its special promoters and expounders. To cram all the "ologies," and to read impartially courses of French and English novels, is the method prescribed by not the least able of its interpreters for our future grocers and drapers, should they survive the struggle for existence with the

co-operative societies. Parliament is occupied with the Public Schools Bill, and one of the great fights of the session will be on the subject of national education. The British Association have published a report on the best means of introducing scientific education into schools, and Colonel Sykes will move for its production in the House of Commons on Monday next. Besides these signs of general movement, we find the subjects of professional and class education in everybody's mouth. Each person you meet knows some lad, the head of his school, who has been unsuccessful at a Civil Service examination because he could not spell some cacophonous word, or did not know who was the Khan of Tartary in 1400. Then, to come home, how many Medical examinations will a Medical officer in the army or navy have passed who has a double qualification and a University degree before he attains to the rank of Surgeon? The same spirit shows itself everywhere. Barristers soon will be prescribed some other tests than those of mastication and digestion, and it is rumoured that some of the bishops are beginning to insist on a knowledge of Hebrew in candidates for holy orders. These are all signs that just now we are undergoing an education fever. With regard to the new lights, we know there are many scientific men who doubt the wisdom of abolishing the old thorough teaching of Latin, Greek, arithmetic, and mathematics, for a system which shall cram some smattering of all the sciences into the boy's head before he has acquired sufficient knowledge of language to grasp the meaning of the words which form the alphabet of every science. We are glad to see that at Rugby they seem to have already found out that to teach chemistry to boys without actual work in the laboratory is to encourage the merest cramming. Botany is spoken of as the best science to begin this kind of education. Would not a little Greek be useful before a boy is made to swallow such words as "didynamous" and "monochlamyds?"

The vacancy in the office of Assistant-Physician to St. Mary's Hospital has been filled up by the appointment of Dr. Lawson, one of the Lecturers on Physiology in the School. We understand that in all probability Dr. Gee will be elected to the vacant Assistant-Physiciancy at St. Bartholomew's. It is but very rarely that this great Hospital has been under the necessity of going beyond the circle of its own school to fill up the vacancies in its staff. The late unparalleled promotion has been the result of a rapid succession of sad losses which rarely have fallen to the lot of any of our great Hospitals. The vacancy at Charing-cross for an Assistant-Physician is still open. The diplomas and testimonials of candidates are to be sent in before February 26.

We would remind our readers who take an interest in the next election of foundation scholars at the Epsom Medical College that applications for the admission of boys to those scholarships must be sent to the office of the College, Soho-square, before March 4.

Small-pox is not only rife in the Woolwich and Greenwich districts, but it still prevails to a considerable extent in London. Mr. Marson, of the Small-pox Hospital, informs us that of the five years during which the present epidemic has continued, 1866 and 1867 were the two largest years of admissions, and in the present year 245 patients have already been admitted. The accommodation afforded by the Hospital is only 107 beds. The same disease is also reported to be prevalent in several parts of Hertfordshire.

There is an admirable article on woman's work in the last *Saturday Review*, which we commend to those of our fair friends who venture a peep into our columns. Its text is a complaint of the decay of good English housewifery:—

"The little royalty of home is the last place where a woman cares to shine, and the most uninteresting of all the domains she seeks to govern. Fancy a high-souled creature, capable of æsthetics, giving her mind to soup or the right proportion of chutnee for the curry! Fancy, too, a brilliant creature foregoing an evening's conversational glory abroad for the sake of a prosaic husband's more prosaic dinner! He comes home tired from work, and desperately in need of a good dinner as a restorative; but the plain cook gives him cold meat and pickles, or an abomination which she calls hash, and the brilliant creature, full of mind, thinks the desire for anything else rank sensuality. It seems a little hard, certainly, on the unhappy fellow who works at the mill for such a return; but women believe that men are made only to work at the mill that they may receive the grist accruing, and be kept in idleness and uselessness all their lives. They have no idea of lightening the labour of that mill-round by doing their own natural work cheerfully and diligently. They will do everything but what they ought to do; they will make themselves Doctors, committee-women, printers, what not, but they won't learn cooking, and they won't keep their own houses. There never was a time when women were less the helpmates of men than they are at present; when there was such a wide division between the interests and the sympathies of the sexes in the endeavour, on the one side, to approximate their pursuits."

One more experiment, although on a very small scale, in providing Hospital accommodation for parturient women, is to be made in connexion with University College Hospital. A house is to be taken in the neighbourhood of the Hospital, but distinct and separate from it. Four patients only are to be admitted at a time, each of whom is to have a separate room. An institution on such a plan ought at least to avoid all those causes of mortality which have thrown well-founded doubt on the value of Lying-in Hospitals. The patients will be nursed by the All Saints' Sisters, and will be under the Medical superintendence of Dr. Graily Hewitt, the Obstetric Physician to University College Hospital.

The *Owl* states that the Queen is about to confer a baronetcy on Dr. Jenner.

THE MEDICAL PROFESSION AND THE PUBLIC SCHOOLS BILL.

The Public Schools Bill is one which ought to meet with the decided opposition of the Medical Profession. Its purpose is to perpetuate the abuse whereby those establishments, from being schools for those who want to learn, have become schools for the rich, who often don't care to learn. By the providence of our forefathers, and especially by the policy of Queen Elizabeth, and by the benevolence of the subsequent founders of such schools as Harrow and Rugby, no boy, no matter his parentage or means, living within reasonable distance of a grammar-school, need be without such a first-class education as would fit him for any station in civil life. The attempt to cut off some of the best of these schools from the class they were intended for, and to make them nurseries for the rich only, will, we hope, be defeated. If Epsom College after a century or two became illustrious, and attracted to it the sons of titled people, and if the masters were allowed to receive such boarders, this intruding class would learn to despise the foundation-scholars, and there might be a Bill for cutting off the College from the sons of mere Medical men.

THE CLINICAL SOCIETY.

The last meeting of the Clinical Society was highly successful. An abstract of certain cases of intermittent hæmaturia was read by Dr. Greenhow, and a report by Drs. Pavy and Dickinson on one then in the Middlesex Hospital was also read. A discussion of great interest, especially as to the etiology of the disease, ensued, in which several gentlemen took part. Some referred to cases they had seen, and Dr. Sidney Ringer showed a specimen of urine from a patient suffering from the disease. Drs. Andrew Clark, Church, and Wiltshire spoke on the subject. Dr. Reginald Southey read a case of abscess in and around the kidney terminating favourably, on which Dr. A. P. Stewart and Mr. Sidney Jones made some remarks. Finally, Dr. Andrew Clark attempted to read a capital case of fibroid phthisis, but the time was

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too short, and he was forced to curtail it so much as to greatly detract from its value, and this, too, even after a prolongation of the ordinary time of meeting. The debate on this subject will, however, be introduced next time by a short case also by Dr. Clark, so that a starting point will be thus afforded for various speakers. It is expected that the discussion will be of unusual interest.

DOES SEWER GRASS TAINT MILK?

At the late debate at the meeting of Medical Officers of Health, on the dry-earth sewage system, it was alleged against the method of disposing of sewage by irrigation, that when cows are fed on the grass of meadows so irrigated their milk is tainted with a sewage smell. Now, it is quite possible that milk may be tainted, if the cows have any tainted food or drink whatever, and more especially if their water be impure. Thus, Mr. Morton tells us that at Lodge Farm, Barking, where the cows are largely fed upon the sewage rye-grass, the milk was once tainted for some days because the well received some drainings of stale water from a grains pit; but as for the sewage grass itself, he has no hesitation in saying that rye-grass fed with repeated doses of sewage is a perfectly and healthily grown plant, having only the aroma and properties belonging to the genus *Lolium*, and is incapable of producing any effects beyond those of *Lolium* grown under any other circumstances. As a matter of fact, cows fed on sewage grass *alone* yield a perfectly good and wholesome milk.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

Since our last notice of these lectures, several interesting groups of the lower forms of invertebrates have formed the subjects of consideration. In treating of the so-called protozoa, after describing the organisation of the Gregarinæ and the Amœbæ, the learned Professor gave an account of his own observations in connexion with the group of the Thalassicollidæ. He pointed out that the skeletons of these jelly-like masses were really the Polycystinæ of Ehrenberg—shells or skeletons of wonderful beauty and symmetry, formed by the aggregation of siliceous spiculæ in the sarcodic bodies of these animals. These Polycystinæ were rock-matters as well as the Foraminifera, and in Barbadoes rock-masses are found made up entirely of their siliceous remains. Certain *yellow movable cells* had been observed in the sarcode of these animals, and had been regarded as a rudimentary *hepatic* system. He regarded these animals as presenting analogies with the sponges. After a brief description of the sponges and their classification into the following groups—1. *Halsarcidæ*, those consisting of a mere aggregation of amœbiform bodies, with no spiculæ; 2. *Clionidæ*, the burrowing sponges often found on the shells of the oyster and other mollusks; 3. *Spongidæ proper*, in which were found siliceous spiculæ of exquisite structure; 4. *Petro-Spongidæ*, the skeleton entirely calcareous or siliceous; and, 5. *Tethydæ*—the Professor passed on to the consideration of the interesting group of the Infusoria. The consideration of the process of sexual multiplication in these minute animals occupied a considerable amount of attention. The lecturer inclined to Stein's view, that the conjugation which had been observed to occur amongst these animalcules, especially in the genus Paramecium, was not a *true copulatory* act, in which an exchange of seminal elements took place, but only a kind of *stimulus*. It had been observed that this conjugation was not a mere apposition of the bodies of these infusoria, but that a portion of their bodies—the two anterior halves—became *fused* together; this had given rise to the erroneous idea of longitudinal fusion, what appeared to be longitudinal fusion being really a sexual act. Whether this was a true copulation or not was a matter of observation. It was, however, certain that conjugation took place, and that after this process the nucleus enlarged and broke up into a number of rounded portions, which eventually assumed an Acineta form. What becomes of these forms no one knows. The group of the *Annuloïda* next called for consideration. Here a differentiation of the body into cellular elements is first met with. These animals also present a bilateral symmetry. They possess a water-vascular system, and those that have a wormlike form are separated from other worms by the absence of a longitudinal chain of ganglia. This group includes two divisions, the Scolecidæ and the Echinodermata. After describing the organisation of the Rotifera, Professor Huxley entered very fully into the structure and organisation of the class Trematoda, a group of animals which, as the lecturer observed, possesses an especial interest for a Professional audience, since the animals it includes are all parasites upon or within the bodies of other animals. They were closely allied to another group, the Turbellaria; indeed, it would be difficult to say what characters separated them, except that the Turbellaria lived *free* and were not parasitic. Taking the *Aspidogaster conchicola*, a parasite found in the pericardial cavity of the fresh-water mussel, as a type of this class, the learned Professor entered very fully into a description of its singular water-vascular system, and its still more remarkable and highly complicated reproductive organs. We regret we have not space to follow the lecturer into this very interesting part of his subject. This was followed by a description of the Distoma, one of the most prevalent of parasitic animals, and in some parts of the world infesting to a great extent the human race, and proving a very serious cause of disease. The class Turbellaria, including the Nemertidæ and the Planariæ, were next considered, and this was followed by an interesting account of the Tæniadæ, the curious life history of the tapeworm coming in for a large share of attention.

RESIGNATION OF THE MEDICAL STAFF OF THE BIRMINGHAM GENERAL DISPENSARY.

The Medical and Surgical officers of the Birmingham General Dispensary have resigned their appointments *en masse* in consequence of the very illiberal manner in which the Committee of Management have treated an application made by them for an annual honorarium as some slight recognition of their services. The application rested on the following grounds—of its own inherent justness, of the precedents already established in many other similar institutions, and especially because this Dispensary is one of the richest of its kind in the kingdom, and can well afford to acknowledge their services by more substantial tokens than the usual stereotyped thanks. The Committee rejected the application, assigning as a reason for so doing the preposterous one that, as they could not pay them adequately for their services, they should refrain from granting any gratuity whatever—in other words, they should give them nothing. The consequence is, the institution has lost the services and support of its old officers, some of whom have been connected with it for many years, and who have, by their Professional position and reputation, gained for it, to a considerable extent, the confidence and patronage of the public. We need only enumerate the names of Dr. Anthony and Dr. Heslop to show the loss which the Dispensary has thus sustained. When will committees learn their own true interests, and how to conciliate those upon whom rest the very existence and prosperity of their institutions? Still, we feel bound to confess that we do not see how the Committee could accede to the request of the Medical officers without previously applying to the governors and subscribers for permission to use their funds in the way requested, or laying themselves open to the serious charge of misappropriating the moneys of the charity.

THE FEVER AT TERLING.

Our readers will not be at all surprised to find that the epidemic at Terling is raging almost as fiercely as ever. It cannot be wondered at, for the authorities have never once shown themselves thoroughly in earnest to do their duty. At the beginning of January we gave them plain practical advice how to rid themselves of their plague; and had they set to work and followed it, there would have been only convalescent cases in Terling at the time we write: as it is, fresh cases are daily occurring, and the number of deaths amounts to thirty-seven. We understand that there is a gentleman from the Medical Department of the Privy Council superintending the disinfection by carbolic acid, as first recommended by Mr. Haviland in his special report. A *wooden*, not an *iron*, Hospital is in the course of erection, capable of containing *eight beds* only! The dimensions of the ward are to be 25 feet by 18 feet. The site is near the school. Mr. Taylor has inspected the village, and reports that it ought to be thoroughly drained; on his opinion being communicated to the Vestry, he was asked to give them a week to consider the matter before sending in his report! This delay is quite in character with everything else at Terling; we suppose the Vestry waited to see the Medical gentleman's report printed and bound up in blue before they considered it seemly to take any step that had not an official stamp upon it. Mr. Russ, an engineer at Brentwood, has visited Terling, and considers that it would cost about £3000 to drain the place thoroughly. The Sisters of Mercy are acting up to the very letter and spirit of their name. The way in which they perform their self-imposed task is at once a consolation to the sufferers, and a most efficient help to our Professional brethren. There is also a staff of nurses, who sit up by night with the worst cases. Some of the water from the various wells now in use has been ordered to be sent to London by the Secretary of State for analysis. We are very sorry to find that the labouring classes in Terling are adding to their troubles by indulging more freely than ever in drink. The fever has too many allies at Terling already in the shape of ignorance, apathy, and red-tapism. We sincerely hope, therefore, that the poor labourer will not join with his masters and add another in the shape of intemperance; the war that is waged against him by disease is quite unequal enough as it is.

THE MAURITIUS EPIDEMIC.

We regret to hear, by recent accounts from the Mauritius, that the epidemic fever, which was so destructive in that island during last year, has, with the summer heat, again broken out with an intensity which warrants very serious apprehensions as to the probable extent which it may assume during the present hot season. Private letters inform us that the 86th Regiment, which had been detained for some months at the Cape, in anticipation of the disappearance of the epidemic, having been sent on from the latter station during a temporary cessation, arrived just at the time that the fact had become evident that not only had the fever *not* disappeared, but was returning with renewed virulence. On first arrival, we hear it had been decided that the regiment should return to the Cape rather than disembark and land in the face of such an insidious and deadly foe. But ultimately, in contravention, we are informed, of the opinions and advice of the senior Medical officer in the island and of the Medical officers of the regiment, the men were landed and placed in barracks at Port Louis, the hotbed of last year's epidemic, and in the immediate vicinity of a graveyard in which it is estimated that 30,000 corpses had been interred during that year. Already several cases of fever have occurred in the regiment, and the 32nd Regiment, which had arrived in the winter during the ebb of the epidemic, is also suffering. If the facts be as they have been reported to us, and we have every reason to believe that they are so, the matter demands the most serious attention of the military authorities at home. The grounds upon which the first-formed intention of remanding the 86th Regiment to the Cape was resigned to the limbo of good intentions, and a directly opposite course adopted, ought to be cleared up. Again, ordinary prudence, to say nothing of the dictates of hygienic preventive Medicine, should have forbidden that a regiment on disembarkation should have been, even as the most temporary expedient, quartered in or near a town which has become notorious as having been, during the year immediately preceding, the seat of the most destructive epidemic of modern times. We hope that a commission of inquiry from this country, composed of men thoroughly acquainted with sanitary matters and entirely unbiassed by any of the distracting influences of local prejudices, may immediately be sent out to examine and report upon the nature of, and circumstances attendant upon, the past and threatening epidemics.

VANADIUM AND ITS COMPOUNDS.

Professor Roscoe gave an interesting lecture at the Royal Institution on Friday, the 14th inst., on vanadium and its compounds. He observed that this rare metal was discovered in 1831 by the Swedish chemist Sefström in some iron ore at Taberg. It was subsequently made the subject of investigation by Berzelius. Very small quantities had since been discovered. It was so scarce that the market price was eighteenpence a grain, and it had as yet been applied to no useful purpose. About two years ago, Professor Roscoe accidentally came into possession of a large quantity of this substance. It was found in a copper mine which he had occasion to visit at Alderley in Cheshire. The manager of the works had been greatly puzzled with a blue liquid supposed to contain copper, but from which the copper could not be precipitated by iron. When Professor Roscoe examined this, it turned out to contain a compound of the rare metal vanadium. A diagram of a photographic representation of the cutting in which this metal had been found was thrown on a large screen in the lecture-room, and the lecturer pointed out a vein of cobalt ore running along the cutting, and stated that it was in this vein that the ore of vanadium had been found. The Professor then proceeded to point out some of the reactions of the compounds of vanadium, and exhibited the crystalline forms of some of its salts by an interesting experiment in which the solutions were made to crystallise before the audience, the figures of the crystals being thrown on a white screen. The metal itself might be obtained by first forming a compound of vanadic acid with ammonia by precipitating its sodium salt with sal-ammoniac. In this way an insoluble vanadiate of ammonium might be formed. Professor Roscoe had not yet prepared any of the metal himself, but he hoped to be able to do so shortly. His observations as to the natural affinities of this metal led him to adopt a different conclusion from the one which Berzelius arrived at. The compound which the distinguished Swiss chemist regarded as a chloride, and from the analysis of which his conclusions were drawn, Professor Roscoe had discovered to contain oxygen—it was really an oxychloride. The real affinities of this elementary body were with the *trivalent* elements—phosphorus, arsenic, nitrogen, antimony, bismuth, etc. Four oxides of vanadium could be obtained analogous to four of the oxides of nitrogen, the lowest of the series only (that analogous to nitrous oxide) being absent. The lowest oxide, corresponding to nitric oxide, like that body, absorbs oxygen rapidly, and becomes of a brown colour. The *true* chloride, which is a black liquid, and the oxychloride undergo the same decomposition with water as do the corresponding phosphorous compounds. Indeed, in all its reactions, it showed that it must henceforth be regarded as a member of the *trivalent* series of elementary bodies.

"PURPURA MALIGNA" IN DUBLIN.

It is a noteworthy fact that cases of this disease should again be appearing in Dublin at the setting in of the spring months. Three cases have lately occurred among the troops in the Royal Barracks, one proving fatal after a few hours' illness. In the same barracks last year, during the spring and early summer, several cases occurred. No local sanitary defect, obvious to the ordinary means of estimation on such points, has been discovered. The fact, however, of the disease reappearing in the same barracks, and at the same season, seems to point to a combination of local and climatic influences which will be worthy of the most searching investigation. The personal antecedents of the patient in all cases ought to be clearly traced, with the view of contributing data on which to found an opinion as to the contagious nature of the disease or otherwise. Dr. Sanderson, in his account of the epidemic of cerebro-spinal meningitis about the lower Vistula in the early part of 1865, published in the Eighth Report of the Medical Officer of the Privy Council, states that he met with no facts which afforded ground for believing the epidemic meningitis was capable of being communicated by personal intercourse. He attributes the fatal character of the disease to the depressing general influence of malaria. The Royal Barracks in Dublin are situated within a few hundred yards of the river Liffey, at a point where large quantities of sewage are daily discharged, and any one who has ever been there at low tide can bear testimony to the offensive effluvia which frequently permeate the atmosphere along its banks. This, as one of the factors of disease, combined with the peculiar conditions of barrack life, may have had some influence in its causation. Since writing the above, we have heard that a policeman died on Saturday in Stevens's Hospital of purpura maligna, and that, in the whole, six deaths from this disease have been registered in Dublin during the past fortnight. A case is also reported as having occurred among the troops at Portsmouth on the 14th inst.

IRISH UNIVERSITY EDUCATION.

Without desiring to express any very decided opinion on so difficult a question as that of Irish education—a problem into whose solution so many points both in politics and polemics enter—we must say that we hope the subject will be thoroughly and impartially considered ere definitive action is taken by Government. As the matter stands, it is pretty much as follows:—The Roman Catholic party demands a charter for its own university, and the grounds on which it bases its request seem fair enough. It says: "The Protestant or Church party has a university of its own, in which religious training forms a substantial part of the usual arts curriculum, and from whose valuable rewards—scholarships and fellowships—Roman Catholics are excluded. We desire to give Roman Catholic students similar advantages, and we therefore assert that we ought at least to receive a charter from Government recognising our degrees." The claim appears *prima facie* to be a just one, but the expediency of admitting it is diminished when the evidence of a third party in the issue is considered. The Queen's University, established under the auspices of Sir James Graham and Sir Robert Peel, is based upon purely secular principles. It has been eminently successful both in the number of students in attendance at its three colleges and in the number of graduates which it has sent out during its short existence of nineteen years. Now what do the graduates of the Queen's University say? They allege that if a charter is given to the Roman Catholic University, not only will the principle of non-sectarian education—which, in the national schools, has wrought such good for Ireland—be absolutely violated, but the University founded on that principle will be inevitably damaged. They state, as their reason for this belief, that the influence of the Roman Catholic Church will draw away the Roman Catholic students (50 per cent. of all) from the Queen's University. The authorities of the Dublin University (Trinity College), on the other hand, are in favour of granting a charter to the Roman Catholic University, for such a charter could in no way affect an institution so essentially Protestant as their own. Such are a few of the difficulties of this question. The Government, it is said, attempted the *medio tutissimus ibis* principle, by suggesting that Trinity College should be converted into a National University, of which the others would be affiliated Colleges. This proposal, however, has met with little favour from the College principally concerned or from Irishmen generally. There is no doubt that the Roman Catholics have right on their side when they ask for a University; but whether it may be expedient or no to found a new one at the present juncture is an open question.

FROM ABROAD.—DEATH FROM EMOTION—CHOLERA PENSIONS—THE FRENCH HOSPITAL REGIMEN.

A case is related in the *Gazetta Med. di Torino* for January 27, which possesses great interest, not only on its own account, but from a medico-legal question it gave rise to. A station-master of one of the Italian railways, 55 years of age, and in robust health, was awakened one morning with the news that his station had been robbed. He felt his responsibility so acutely that he immediately became ill, and died within twenty-four hours, all the assurances of his superiors and encouragements of his relatives failing to reassure him. There was utter prostration, spasmodic action of the stomach, with obstinate vomiting, hollow voice, and failing pulse, consciousness continuing to the last. The railway administration, in a circular to its *employés*, narrated the facts, and offered its homage to the honourable susceptibility manifested by the deceased. It was also determined that his widow was entitled to her pension, her husband having met his death as an "immediate consequence of his service." The railway being in the hands of the Government, the court, whose duty it was to carry out this decision, demurred, and ordered that the widow should only be paid an indemnity of 1944 lire (£80). She appealed against this as an unjust judgment, and the case was referred to Signor Laura, Professor of Legal Medicine in the Turin University, to report upon. This he does at some length, but we can only present his chief conclusions.

1. That sudden mental emotion may induce death within a brief space of time, or even immediately, and that in persons in robust health, is a fact freely admitted in science. 2. The physical phenomena induced by such moral cause indicate a deep perturbation of the nervous system, and are generally of a dynamic character. 3. The intimate connexion of the mental emotion and the fatal result in this case is shown by the facts that the evening before the patient was perfectly well, and that, awoke from a tranquil sleep by the, to him, dreadful news, he immediately became ill. No other possible cause could be assigned for the train of symptoms that followed, as the action of his heart prior to this illness was known to have been in a healthy condition. 5. The fact of death being delayed for twenty-four hours is no proof that it was not caused solely by the mental emotion. In analogous cases, such as death from lightning or from poison, death, usually sudden, may be delayed in some individuals. Mental emotions may not always operate with the same force, and may meet with a varying amount of resistance; and there are also various conditions operating, which the present state of science does not enable us to correctly appreciate. It is very possible that, had the news been brought to the patient during the time when his mind was occupied with his duties in place of just on his waking from sleep, his powers of resistance would have been stronger.

Professor Laura's conclusion, therefore, was, that the man

had undoubtedly died solely from mental emotion, induced by his great anxiety for the safety of the property, no preceding or accompanying cause of death being present. The Court of Appeal agreed in this opinion, which was also approved of by the Faculty of Bologna, and the pension was decreed to the widow as if her husband had been killed while performing services for the Company.

The Italian Parliament has just passed a law which is deserving of appreciation and imitation in other countries. It has decreed that the widows and children of Medical Practitioners who have lost their lives during cholera epidemics shall be entitled to pensions, and that whether such Practitioners were in the permanent or temporary employment of the Government. No claims are, however, to be allowed except for the relatives of persons who have been requested by the authorities to give their services. The pension of the widow is fixed at 400 lire (about £16); rising from that sum to 1000 lire, according to the number of children left by the defunct. In case of there being no widow, or of her marrying again, the pension will be appropriated to the orphans according to their number. This may be regarded by some as a small matter; but it is, at all events, a step in the right direction to acknowledge the claims of the warriors against pestilence as well as those of the men of the sword.

M. Desprès, of the Lourcine Hospital, brought under the notice of the Paris Society of Surgery one of those "administrative" measures our neighbours are so rich in, and which some among ourselves are so fond of admiring. Those who have to do with them would prefer a little more liberty of action, as in the present case. M. Desprès, having found such great advantage accrue from invigorating diet in the treatment of syphilis, is anxious that a suitable regimen should have its fair trial in other diseases, but this, he declares, is impossible under the system which prevails in the Paris Hospitals. It is true that a long-needed amelioration both in the quantity and quality of the food supplied to the patients has of late taken place, and that semi-starvation which prevailed has become more exceptional; but this improvement has been qualified, for "administrative purposes," by a system of classification which in some cases will render its benefits nugatory. All the patients are distributed into six categories or classes, the diet varying in each from simple broth to extra meat. All the patients of each class are absolutely confined to the kind and quantity of diet and of wine set down for that class—a plan which much facilitates the arrangements of the adminstration, but one little suited for the exigencies of satisfactory treatment, supposing this, as M. Desprès does, to much depend upon the due regulation of diet. He maintains that the Surgeon or Physician should be entrusted with the power of modifying these rules of diet as individual occasion calls for it, both as to the nature of the aliments and their quantity; and he blames the administration for having introduced these new regulations without even consulting the Medical officers. He now was desirous of inducing the Society of Surgery to join him in protesting against these regulations. Alas! it is too evident that M. Desprès is a sanguine young Paris Hospital Surgeon. The old hands of the Society, so long accustomed to administrative swathing bands, know the inutility of protesting and getting into hot water with the authorities, and quietly smothered the subject on the plea that it was a matter which concerned the Hospital Medical officers, not the Society of Surgery. Still, it is not so very long since prolonged discussions on the size of Hospitals and on the mortality of lying-in Hospitals took place within its walls.

PARLIAMENTARY. — THE CONTAGIOUS DISEASES ACT — THE SCOTTISH REFORM BILL—THE HABEAS CORPUS SUSPENSION ACT (IRELAND)—THE MEDICAL OFFICERSHIP OF THE MOUNTJOY PRISON.

On Monday, February 17, in the House of Commons, Lord E. Cecil asked the Secretary of State for War whether it was the intention of the Government to move for a sufficient sum in the forthcoming estimates to extend the benefit of the Contagious Diseases Act to every camp, garrison, and seaport town in the United Kingdom, considering the large percentage of soldiers and sailors whose services are now wholly or in part lost to the State in consequence of its partial and incomplete adoption.

Sir J. Pakington said his noble friend would find, when the Army Estimates were produced, that the vote for carrying out the Act had been considerably increased. He would rather, however, postpone any explanation of the manner in which the grant would be applied until he proposed the Estimates.

The Lord Advocate introduced the Scottish Reform Bill. The proposition in this Bill which mainly affects the Medical Profession is that of giving two members to the Scottish Universities. In the course of the debate this proposal was opposed by Mr. McLaren. In replying, the Chancellor of the Exchequer said that the Government would be ready to consider the opinion of the House on this and other details when the Bill was in Committee.

On Tuesday, in Committee on the Habeas Corpus Suspension (Ireland) Act Continuance Bill, Mr. Maguire called attention to the dismissal of Dr. M'Donnell from the Medical care of Mountjoy prison, and the appointment of Dr. Young as his successor, who, he said, had been lately censured by a verdict of a coroner's jury for want of attention to convicts. The Earl of Mayo, in reply, explained that Dr. M'Donnell, to whom he paid a high tribute as an able Physician, had retired because, from increasing private practice, he was unable to give the whole of his time to the duties of his office. He vindicated Dr. Young, with whom he said he was personally acquainted, and expressed his conviction that a more humane, an abler man, or one more competent to discharge his duties, does not exist in any convict prison in the kingdom.

REVIEWS.

Philosophy of Health; or, an Exposition of the Physiological and Sanitary Conditions conducive to Human Longevity and Happiness. By SOUTHWOOD SMITH, M.D. Eleventh edition, revised and enlarged. 8vo, pp. 395.

No Medical man of the present generation conferred by his labours greater benefit on his countrymen—we should rather say on mankind—than the late Dr. Southwood Smith. Single-minded and actively philanthropic, his best energies were ever devoted throughout his career to the elucidation of preventive and prophylactic Medicine. That his "Philosophy of Health," which was published in 1835, and subsequently ran through many editions in America as well as in this country, powerfully contributed to the recognition and establishment of public hygiene as a most important branch of Professional research, is beyond doubt; and for this reason alone it well deserves to be known to all who are interested in sanitary inquiries. During the active years of his official life, Dr. Smith had not the leisure requisite to revise the successive editions of the work; but in his closing years he took up this task with great ardour, and had made much progress in it before his decease. The scope and object, to use his own words, were "to show that a knowledge of the structure and functions of the human body, irrespective of the pleasure arising from the study as a most interesting branch of science, is necessary to a rational care of health; and that it is absolutely indispensable to those who have the charge of the health and well-being of others, from the mother and the nurse to the educator—to the heads of families—to the heads of large establishments, whether public or private—most especially to officers, generals, etc., as the guardians of the health and efficiency of the soldier—to local authorities—and last, but by no means least, to the legislator as the framer of laws for the regulation and administration of public health."

The present volume is replete with interest for the physiological student, containing as it does a fund of valuable information respecting the structure and functions of the principal organs of the human frame, the whole being illustrated by numerous plates, many of which are extremely good. Its extremely moderate price brings it within the reach of all.

MR. SAMPSON GAMGEE has been elected an associate member of the Surgical Society of Ireland.

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

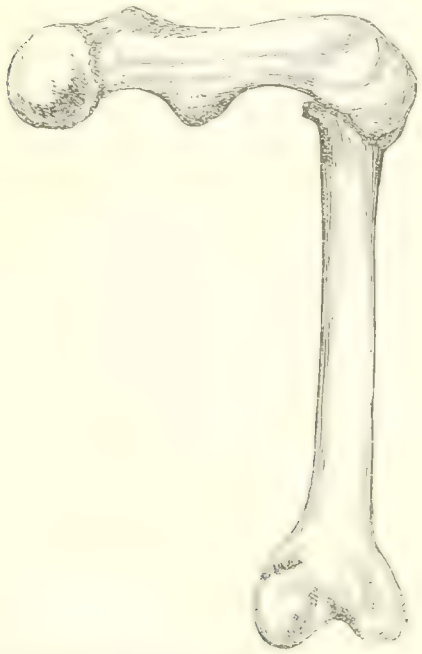
By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

(*Continued from page* 154.)

The Dupuytren Museum—Fractures of the Femur with Displacement—Union at Right Angles—Impossibility of Accurate Reduction after Transverse Fracture with Displacement—Paramount Importance of Extension-treatment—Fractures of the Neck of the Femur—Questions as to Possible Union, and as to Use or not of a Splint—Mutual Change of Fashion in England and France—Single Specimen of Bony Union after Intracapsular Fracture—Incomplete Fractures of Cervix—Union after Vertical Fracture into Knee-joint.

January 3.—*Musée Dupuytren.*—A museum is often far more instructive than a Hospital ward. Let us glance at this long row of fractures of the shaft of the femur, and note its lessons. First, let us observe that when the bone is broken in its upper third what Sir Astley Cooper so well called "that horrible distortion" is almost universal. In nearly all the bones so broken we see the upper fragment projecting outwards, and the lower united to it at an angle. What Surgeon has not had to contend with this tendency, and often after much painstaking found his endeavours almost wholly in vain? No treatment that I know of can in all cases bring the upper fragment down into position, and the bones before us in this museum well illustrate how often and how fruitlessly our predecessors have had to contend with the same difficulties that now plague us. One of the bones shows the union actually

Fig. 1.



A left femur fractured just below the upper third, and united with great deformity (at a right angle).

at right angles, and others show degrees of deformity approaching this. I have had woodcuts made from two of the specimens—one, that just alluded to, because it exhibits the greatest deformity I ever saw, and the other as showing a slight and more usual degree. I had also another motive in reproducing the latter; it appears to have been presented by M. Malgaigne but a short time before his death, and is, perhaps, one of the last results of that Surgeon's unwearied zeal for science.

No one familiar with the ward as well as the museum will incline to attribute these deformities, excepting when extreme, to "bad Surgery;" and all candid Surgeons will, I am sure, admit that often it is impossible to prevent them.(a) I have myself repeatedly taken the utmost pains with such fractures, and with yet most disappointing results; and I saw the other day, under the care of one of the most distinguished Paris Surgeons, a case which proved that he had encountered the same difficulty. It is time that the subject should receive more special attention. Has any Surgeon tried the plan of carrying the limb out away from the pelvis, so as to bring the lower fragment, which he can move, into a line with the displaced upper one, which he cannot alter? I have often been tempted to try it, but have never yet been quite bold enough. Short of this, I am sure that extension is the main remedy.

Fig. 2.

A left femur showing union after fracture in the upper third, with displacement of the upper fragment outwards.

Let us turn from those of the upper third to those in which the shaft is broken lower down, at or below its middle. The Museum has a long series, and we need not dwell on particular bones, if we can only learn from them this general lesson—*there is riding in almost every one, and, of course, with riding necessarily some shortening.* Let us not conceal from ourselves the fact that when once a femur has been broken through the mid-shaft, with displacement of the fragments, anything like end-to-end reduction is a most rare achievement. The exceptions are where the fracture is oblique. Where, as usual, it is more or less transverse; there, I repeat, true reduction is most rare. Pull as you may, the bones still ride, and still there is a little shortening. It may be alleged that museum specimens are deceptive in this matter, inasmuch as they have been obtained often on account of deformity; but any one who will carefully and honestly examine his own cases after cure is complete will, I am sure, convince himself of the truth of what I assert. In this Museum there is scarcely a single exception to the usual condition of riding; nor am I aware of any larger proportion in other museums which I have examined.

I may also ask attention to the fact that a general rule is illustrated in the circumstance that in almost all the specimens the lower fragment is behind the upper one.

These museum facts all tend in one direction as regards practice. They assert, in the strongest manner that facts can, the importance of adequate and continuous extension in the management of all fractures of the femur. Grant that even with it our results will be imperfect, still they will be infinitely

(a) [illegible] this kind which [illegible] provincial Surgeon. Under [illegible] The patient kept a bag [illegible] was in bed, whatever [illegible] his limb, and exclaiming, "There's your Surgery, Mr. A——, there's Surgery for you!"

better than if it be neglected. Nor must I forget that I am writing this in the school whence this practical doctrine took its rise, nor to remember with special honour the name of Desault as that of the inventor of the best means of carrying it out. It is related of Brindley, the celebrated canal constructor, that on his deathbed he was consulted by some engineers, who had failed to get a canal they were making to hold water. "Puddle it," was his advice. "But we have puddled it," said they. "Then puddle it again." Similar advice might perhaps be with advantage given in reference to extension in the management of fractures of the thigh.

As regards fractures of the neck of the femur, we have a very large series of specimens. Some of them are of especial interest in reference to the controversy so long maintained between the French and English schools as to whether intracapsular fractures could unite by bone. Dupuytren, Roux, and others maintained that they could, and that, in the hope of such result, a straight splint ought always to be used. The French school so far gained the day that the use of the splint became, and still is, common in England, it being considered a safe precaution, although we still do not admit that bony union is usual or even frequent. Yet, in illustration of how opinions change their place, I may mention that this morning I saw in the wards of Hôtel-Dieu itself two cases of fracture of the neck of the femur under treatment by the pillow only, and without any kind of splints, and was assured that such is now the usual method of treatment. To speak generally of the specimens in this Museum, I think we might thus sum up. They support the conclusions deducible from other collections in the following points:—1st. It is possible for intracapsular fractures to unite by bone in very rare instances, whilst in cases more frequent they may unite so closely by ligament or fibrous union that the support is equivalent to bony union. 2nd. That the more common result of intracapsular fractures is non-union. 3rd. That of the fractures so common in old people, and usually diagnosed as intracapsular, a large number are really extracapsular, and that in all these firm union is to be expected.

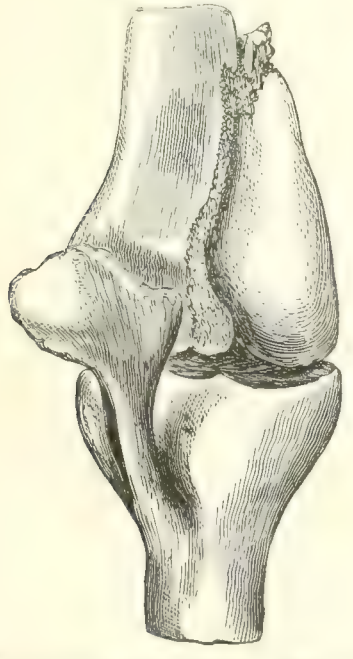
Thus we seem to arrive at the conclusion that the splint ought to be used in all if the patient can bear it, inasmuch as it is not possible to diagnose accurately between those which are within and those without the capsule, whilst in both bony union is possible. It is, at any rate, most desirable that the Profession should give up the too general belief that almost all these fractures in old persons are intracapsular—a belief which is opposed conclusively by every existing museum.

Amongst the single specimens of special interest in this series I may mention No. 188, the only instance of bony union of an intracapsular fracture. No. 188 D, given by Jobert de Lamballe, shows an incomplete intracapsular fracture from a woman aged 79. The periosteal fibres behind are not broken. The fracture gapes in front, but there is of course no shortening. No. 188 C, given by Malgaigne, shows a precisely similar condition. These specimens are of much importance in reference to the cases we sometimes meet with in which injuries to the hip are followed by inability to use the limb, slight eversion, but no shortening nor any crepitus. Such cases are not uncommon. We have two specimens of incomplete fracture of the neck of the femur in the London Hospital Museum (given by Mr. Poulden and Mr. M'Carthy respectively). In all such cases it is the front of the cervix which breaks.

There is a very interesting specimen of a vertical fracture of the lower end of the femur, splitting off the inner condyle. Bony union has taken place, but with some displacement of the fragment backwards. The woodcut (Fig. 3), although of very imperfect execution, having been done from a hurried memorandum made on the spot, will give the reader a good idea of the state of things.

(*To be continued.*)

FIG. 3.



Vertical fracture of lower end of femur. Union, with displacement of the fragment half an inch backwards.

FOREIGN CORRESPONDENCE.

FRANCE.

THE ANTHROPOLOGICAL CONGRESS OF 1867.

(*From our Special Correspondent.*)

PARIS, January 15.

WHILE the International Medical Congress was sitting at Paris, a large number of naturalists, Physicians, and archæologists met for the purpose of discussing questions connected with the science of anthropology. The list of subscribers contained 362 names, and was graced by some of the greatest celebrities of the present day. The President elected for the occasion was M. Ed. Lartet, who was at first prevented by illness from occupying his post, but who made his appearance during the latter part of the proceedings.

To give a full sketch of this important scientific meeting would altogether exceed the limits of an ordinary article, and would, besides, carry us out of our depth, as well as the great majority of our readers. Anthropology, in fact, has become so closely connected of late with many other sciences, that archæology, geology, and philology hold almost as large a space in its investigations as anatomy itself. Let us, therefore, be contented with giving a mere outline of this Congress, in which the questions which only bear a distant relation to our ordinary studies will be thrown in the shade, in order to bring more prominently forward those subjects which are likely to interest the Medical public at large. The following six questions had been proposed by the Committee:—

1. In what geological strata, among what animals and plants, have the most ancient relics of man been discovered? What changes have since then occurred in the relative distribution of seas and continents?

2. Was the custom of inhabiting caverns universal? Does it belong to any peculiar race, or is it characteristic of any special period?

3. Are megalithic monuments to be ascribed to a nation which successively occupied various regions of the globe? If this be the case, what have been the successive migrations of this population? What progress has it accomplished in the arts? And, lastly, did any connexion exist between that race and the inhabitants of the lake-cities?

4. Is the apparition of bronze in the West to be viewed as resulting from the progress of civilisation, from foreign conquest, or from commercial intercourse?

5. What are the principal characteristics of the iron period in the various countries of Europe? Is this period anterior to historical times?

6. What notions do we possess on the anatomical characteristics of man in the pre-historical period, from the most remote ages down to the time when iron first makes its appearance? Can it be ascertained whether several different races have successively inhabited Western Europe; and can the characteristics of these various races be scientifically established?

A certain number of free sittings were reserved for all communications not connected with the official programme.

The Congress opened on August 17, and devoted a considerable part of its time to visits in the historical galleries of the Exhibition, to the anthropological and palæontological collections of the Paris Museum, etc.

On the 19th, after a spirited address by Professor Vogt, of Geneva, the Congress began the discussion of the first question.

I. M. Dupont gave some interesting information on the quaternary strata of Belgium. In the vicinity of Dinant he has ascertained the existence of three distinct classes of fossil deposits. In the first we meet with the remains of extinct or of emigrated species, together with those of existing animals. In these strata are found the most ancient vestiges of man. The second contain no extinct animals, but exhibit the remains of several species which no longer inhabit the country. It principally corresponds to the "reindeer period" (*époque du renne*). The third contain the bones of species which still exist in the country, together with those of some animals which have been locally destroyed by man (*e.g.* the beaver, the stag, etc.). These latter strata correspond to the periods of polished stone, of bronze, and of iron tools.

An interesting discussion arose at this point on the expression employed by M. Dupont, "emigrated species." M. Pouchet maintained that "emigrated species" might have been locally destroyed by man, like the wolf in England, or driven back by the advance of civilisation, like the hippopotamus of the Nile, which, after having inhabited the Delta in former times, is now only to be met with in the centre of Africa.

M. de Mortillet said that certain species must have emigrated in consequence of a change in the climate altogether independent of the action of man, since they can no longer live in countries which are filled with their fossil remains. The reindeer, which formerly was so abundant in France, can no longer be reared even in St. Petersburg and Stockholm (a) The chamois, which formerly lived in the South of France, cannot subsist at present at Chambéry and Annecy, in a much higher and more mountainous country.

M. Nilsson stated that the fossil reindeer of Scania is not the same as that which still lives in the north. The fossil reindeer of Europe may, therefore, have been a very different animal from that with which we are at present acquainted.

M. Dupont replied that four species of animals have emigrated from Belgium—viz., the reindeer, the wolverene, the chamois, and the wild goat (*bouquetin*). Other species have been destroyed by man; such, for instance, are the stag, the beaver, and the bear.

Professor Vogt said that the word "emigration" might be applied with equal truth to plants and animals. The plants of the Alps, the mosses of Greenland, the remains of which are still found in our plains, certainly did not fly before man, and must, therefore, have given way to an unfavourable climate.

M. de Quatrefages quoted Pallas, to prove that in the last century the reindeer came down as far south as the shores of the Caspian Sea, on account of the existence of large forests. As to the difference between fossil and modern reindeer, he thinks they must be viewed as two slightly different varieties of the same species.

All the preceding speakers admitted the existence of man during the quaternary period. It was reserved for the Abbé Bourgeois to claim a higher degree of antiquity for man than had ever been suggested before. He exhibited some silicified bones of *Halitherium* (a fossil cetacean closely allied to the Manatee), which were marked by transversal notches, which could only have been made with sharp instruments when the bone was in the fresh state. These fossil remains were discovered by the Abbé Delaunay in the upper miocene strata of Pouancé in the department of Maine-et-Loire. Besides which, the Abbé Bourgeois has found stone tools in the miocene strata of Thenay (Loire-et-Cher), so that he does not hesitate to assert that man existed during the tertiary period.

Although the notches exhibited on these petrified bones were as distinct as possible, and although the stone tools exhibited were very perfect of their kind, the majority of the members of the Congress did not seem inclined to adopt the conclusions of the Abbé, whose communication was, however, loudly praised.

It is strange that two Catholic priests should be leading the way to an entirely new opinion on the antiquity of man—an opinion which evidently overturns all our former ideas on this subject, and would make the human species older, by some millions of years, than even Sir Charles Lyell has ever attempted to make it.

(*To be continued.*)

(a) Where [illegible] in the plains of Siberia, the reindeer are [illegible] in the mountains, so little is their constitution adapted to [illegible] heat.

GENERAL CORRESPONDENCE.

RETIREMENT OF INSPECTOR-GENERAL MOUAT.

LETTER FROM DR. MOUAT.

[To the Editor of the Medical Times and Gazette.]

SIR,—I think it is to be regretted you should have, on *ex-parte* and evidently erroneous information (wherever obtained), pronounced a verdict, in your editorial capacity, on the cause of my presumed retirement from the service.

In the first place, no such rule of service as that to which you allude exists anywhere in the printed or published regulations of the army, although such a practice may have crept in of late years into the Medical branch of it, evidently intended to prevent valetudinarians and those who systematically evade foreign service from doing so, and, so far, have received the sanction of the War Office.

It is not, I presume, pretended that such is my case, as the amount of foreign and field service I have undergone is a matter too well known in the department to be doubted. Moreover, in the present instance, I expressed my perfect willingness (privately and officially) to proceed to India if the interests of the service rendered it advisable to send me, and merely solicited the short respite recommended by a Medical board rather than submit to such an injustice as the forced retirement on half-pay at the present period of my service would involve.

You have been pleased to speak of my services as "distinguished, and a loss to the army," and I quite agree with you that it is to be regretted the services of any valuable or distinguished officer should be lost to the public on such a questionable pretext, or on any plea but absolute unfitness.

With regard to the injustice to others, on which you lay some stress, it is obvious in the present instance there could be none, as I was perfectly willing to take my turn should the next officer on the roster have objected, of which I have received no intimation, although I questioned, and still do, a system of roster in which all do not participate alike. Further, I apprehend there are few officers in the army, in any rank, who would have considered it a hardship, but rather the reverse, to obtain the most lucrative appointment in it on any terms; and the only person who has a right to complain of injustice is myself, as I have forfeited upwards of £3000 a year, and, if your information is correct, am condemned to a forced retirement, at a great pecuniary sacrifice, while able and willing to serve.

As you have noticed my case by name in so prominent a manner, I must ask you, in fairness, to give this an equally prominent place in your next issue. I am, &c.

J. MOUAT,

Dublin, February 12. Inspector-General of Hospitals.

*** We regret that anything which has appeared in our journal should have given annoyance to Inspector-General Mouat. The high rank and distinguished services of Dr. Mouat render his career a subject of general interest to the Profession, and it was on this ground that we admitted the paragraph.

DR. MUSPRATT'S PATIENTS.

LETTER FROM DR. MUSPRATT.

[To the Editor of the Medical Times and Gazette.]

SIR,—A book has lately appeared under the above title, which has been noticed in the *London Review*, *Spectator*, and other journals. Many of my friends bought the volume, thinking it had reference to me, and that I had turned from Chemistry to Physic. The second chapter of the book commences with—"There lived in Great Newport-street, Soho, one Vicesimus Muspratt, who, though generally designated 'Doctor' Muspratt by his neighbours, was not in truth a Member of the College of Physicians, and held no Doctor's degree. He was a Surgeon of high repute, attached to St. Bartholomew's Hospital, and a Fellow of the Royal Society. . . . Mr. Muspratt's lectures

at St. Bartholomew's were well attended, and from his pupils he received large fees." I have made inquiries from Professors and others connected with the Hospital, and they say that no Muspratt was ever associated with it. This being the case, I do not think it right for Mr. Dutton Cook to have assumed my name, and traded upon it. The name is a most uncommon one (was almost extinct), and I feel certain I am the only Doctor bearing it that has yet appeared. Hoping you will oblige me by inserting this letter, I am, &c.

SHERIDAN MUSPRATT, M.D., etc.,
Professor of Chemistry.

College of Chemistry, Liverpool, February 16.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 4, 1867.

Dr. HALL DAVIS, President.

DR. SNOW BECK read a paper

ON A CASE OF PUERPERAL FEVER, OR PUERPERAL PYÆMIA, AFTER AN ABORTION.

In this case, abortion was induced at the end of the fourth month, in a healthy young lady, aged twenty-six. After a short time the symptoms observed were, dirty and muddy complexion, great weakness, intense thirst, constant retching, cold perspirations, extremely rapid pulse, mind clear, though wandering sometimes, and much irritability. She died on the sixth day after the abortion. The post-mortem examination showed the uterus large and flabby, a portion of placenta imbued with purulent fluid, adherent to the uterus, and attached to it a considerable amount of coagulated blood; purulent fluid in the uterine sinuses, which were otherwise healthy, but so patent as to admit of fluid being injected through them; peritoneum not injected, though the pelvic portion was covered by a thin layer of soft lymph, and there was effusion of brownish serosity into the cavity; lobular congestion of the lungs; effusion of serum into the pleuræ, with soft lymph on the surface; small collections of similar exudation beneath the pleura. The minute structure of the internal surface of the uterus was fully detailed, and the relations of the placenta found to accord with the descriptions of the Hunters and others. The case appeared clearly to show the purulent infection of the general system through the pervious state of the uterine sinuses; also, that one of the most fatal forms of puerperal fever arose from this cause; the sinuses being pervious in consequence of a want of permanent contraction of the uterus. The statement of Dr. Barnes that he had repeatedly seen puerperal fever after perfect contraction of the uterus was examined, and the cases related by him were considered by the author to be diseases very different from puerperal fever—viz., Bright's disease, obstruction of the gall-duct, acute atrophy of the liver, scarlatina, and phlegmasia dolens. Lying-in women, when exposed to the infection of zymotic diseases, frequently took those diseases, but their essential characters remained unchanged. They often existed epidemically, and were infectious, and hence arose the assumed epidemic character and infectious nature of puerperal fever. In the treatment it was considered of much importance to prevent the purulent infection, by effecting a firm and permanent contraction of the uterus; when it had occurred, to cleanse out the uterine cavity, and give the sulphites. The large administration of brandy and the application of a tight bandage were prejudicial, and the latter impossible, from the tenderness of the abdomen and uterus.

After some remarks from Dr. TYLER SMITH, the following letter from Dr. Barnes, who was unavoidably absent, was read:—"I am confident that contraction of the uterus, although a very desirable object to attain, is not a security against puerperal fever. I wish also to observe that Dr. Beck bases his criticisms upon five cases referred to in my lectures, as if these cases embodied my complete views upon puerperal fever. The lectures were broken off for want of time. I had of course a great deal to say about septicæmic or pyæmic puerperal fever arising in the patient's own system. I maintain that the division I propose in those lectures on puerperal fever into excretory, uræmic, cholæmic, scarlatinal, septicæmic, etc., is of great clinical value. For example, a lying-in woman is taken with fever. It is very difficult, sometimes impossible, at first, to tell whether that fever is really of epidemic origin, as scarlatinal, or whether it be strictly of puerperal origin. The puerperal state will impress its stamp upon any kind of fever, no matter whence obtained. Therefore it is a sound clinical proceeding to regard every fever in a lying-in woman as puerperal fever first; then to endeavour to analyse the symptoms with a view to discover the peculiar or special nature of that fever. To say that true puerperal fever is not contagious is to refuse to believe in one of the best-attested facts in Medicine."

Dr. PLAYFAIR said that he was in the position to relate a fact connected with puerperal fever which seemed to him to be of itself sufficient to negative Dr. Beck's theory that zymotic diseases were not modified by the puerperal state. Some years ago a lying-in ward had been established at King's College Hospital. The utmost care had been taken in the construction and management of the ward, but in spite of every precaution the mortality had been for the last year or two excessively high. About a month ago numerous cases of erysipelas appeared in the Surgical wards, and immediately afterwards the two most recently confined women were attacked with a very adynamic form of puerperal fever, which proved fatal in both instances. There could be no doubt that the cause of the disease was the same as that which was producing erysipelas in the Surgical wards. There was, however, no trace of erysipelas as such in the puerperal cases, and the natural inference was that the action of the poison was modified by the state of the patients. He was happy to state that the authorities of the Hospital had now determined to close the ward altogether. Doubtless a relaxed condition of the uterus was, as Dr. Beck maintained, a strong predisposing cause of puerperal fever; but he believed it would be a most false and dangerous conclusion if we were to generalise from this fact, and overlook the other and well-established modes by which puerperal fever was produced.

Dr. GRAILY HEWITT stated that the views he had on a former occasion enunciated on the value of pressure by means of the binder in the early stage of puerperal fever, and as to the extreme value of large doses of alcoholic stimulants at the same period, he still maintained. In a large number of cases, an account of which he hoped shortly to bring before the Society, he had tested their value.

Dr. WYNN WILLIAMS considered the disease in question to be identical with that met with during the progress of other diseases, but objected to the name pyæmia, believing it to be an accidental occurrence during the progress of a certain disease and not always present. He alluded to septicæmia, which was caused by the absorption into the system of the putrid emanations from decomposing animal matter. Pure pus itself, when introduced into the circulation, was no more injurious than any other foreign material, as quicksilver. When scarlatina, erysipelas, and other allied diseases are present, the air is always contaminated with putrid emanations, and this, being brought in contact by vibrios generated in such an atmosphere, or other ways, readily sets up putrefaction in the discharges of the parturient woman, and these being retained, are very apt to infect the patient. If, therefore, in the discharges there is the least offensive smell, it is right at once to have recourse to some disinfectant injection, of which a solution of iodine is the best.

Dr. BRAXTON HICKS was inclined to join issue with Dr. Beck upon the statement that this preparation tended to prove the existence of open mouths into the placental cavity. He held it almost certain that such openings did not normally exist. In fact, Hunter had overlooked the existence of the delicate membrane which represented the wall of the vessel as it passed through the innermost layer of uterine tissue to ramify on the mucous surface opposed to the placenta. The injection Hunter employed burst through this membrane, and thus it appeared to lead into the placental cavity. This membrane would readily be destroyed under the conditions in which the uterus was placed in the case related. But he thought we should make a dangerous and retrograde step if we ceased to acknowledge the zymotic diseases as a cause of so-called puerperal fever. He considered that that disease may be divided into two great classes, with a few minor kinds—namely, that produced by decomposition of a clot, or the secretions in the uterus, thence called endogenetic; and that derived from zymotic poisons, of which scarlatina and erysipelas were the most common. He had in his own practice found that about three-fourths of the puerperal fever he saw was somehow mixed up with scarlatina. But in the lesser class, owing to

the decomposition of clots, he thought very great benefit was to be derived from washing out the uterus in all cases where the discharges were offensive. Of disinfecting fluids he preferred the solution of permanganate of potass, because it showed when it had done its work. It was a curious fact that offensive lochia had been present in all cases but one of acute puerperal mania which he had seen.

Dr. Brunton said that, with regard to the theory of the production of puerperal fever by zymotic poison, his experience was decidedly negative. He had attended several confinements in which not only was there scarlet fever in the house, but the children were actually lying ill in the room, and no bad symptom had occurred to the mother during her convalescence. He agreed with Dr. Beck to a considerable extent, especially as to the advantage of securing a firm contraction of the uterus after delivery.

Dr. Sansom could not agree with Dr. Tyler Smith, that drugs were hopeless when once pyæmia had set in, and that "antiseptics were the feeblest of all feeble measures." He was glad to hear that the author of the paper had found the treatment by the sulphites successful. He believed Dr. Polli's introduction of the sulphites into therapeutics to be one of the most valuable additions to Medical science. He did not agree, however, with Dr. Polli in his idea that the sulphites do not act upon the organised germs of disease, but upon the pabulum in which these germs are propagated. He believed that they acted directly as septicides. Dr. Sansom stated that he had succeeded in producing a series of salts which combined the diffusibility of the sulphites with the potential efficacy of carbolic acid. These agents, the sulpho-carbolates, he would take an early opportunity of introducing to the notice of the Profession.

The President agreed with the author in his view of the pathology of the case which he had brought before the Society. It was one of puerperal septicæmia due to the absorption into the blood of putrid matter from the uterus. But while admitting that perfect contraction of the uterus was most important, he could not consider the want of it as more than an occasional element in producing puerperal fever, which had many other sources. He was of opinion that cases of sporadic peritonitis should not be tabulated with cases of puerperal fever, as the former arose from ordinary causes of inflammation, while puerperal fever, whether accompanied or not by peritonitis, arose from the introduction of poison into the blood, either by the veins or the uterus, or by the lungs in inspiration. Contrary to the author, he was a strict believer in the contagion of puerperal fever immediately from patient to patient, and mediately through a third person. He was also convinced that other fevers, as typhus, scarlet fever, measles, and the emanations from Hospital gangrene, had been prolific causes of puerperal fever. The taint conveyed from post-mortem examinations was another source of puerperal fever. This was well illustrated by the statistics of the Vienna Lying-in Hospital, where at one time, when the students passed directly from their dissections to the lying-in women, the mortality was 1 in every 10 deliveries. When this arrangement was changed, the percentage of deaths fell to 1 in 74. Lying-in Hospitals are no doubt a boon to poor women without homes, but one greatly mitigated by the fact that the mortality in them from all causes is rarely less than 1 in 90 or 100, and generally greater. The institution of cottage Hospitals would no doubt greatly lessen that mortality, and he hoped some day to see them established. Out-door institutions giving home attendance, such as the Royal Maternity Charity, presented a much smaller mortality. In that Charity only 1 death in 350 deliveries occurred. In conclusion, he could add, from long experience, his testimony to the great value of disinfecting injections of a proper temperature, timely resorted to, in preventing and arresting at its outset septicæmia of uterine origin in cases of putrescent lochia. But they came too late when delirium and other formidable symptoms had supervened.

Dr. Snow Beck, in reply, observed that lying-in women were no doubt liable to the various zymotic diseases; but when they did occur they presented the same essential characters as at other times. Nothing could be more erroneous than to term every fever and every disease which occurred after parturition "puerperal fever." Typhus fever, scarlet fever, etc., had no doubt again and again been introduced into lying-in Hospitals, and decimated the inmates; but the destroying agent was still typhus fever, scarlet fever, etc. Suppose the transformation theory was adopted, it would lead to this: that pregnancy had the marvellous power of transforming every disease it might be associated with, not into so many other diseases, but all into one and the same disease—puerperal fever. Such conclusions could only be admitted after the strongest proofs, and not on the mere assertion of any one. Puerperal fever had been correctly compared to Surgical fever, seeing that they both arose from the same cause—purulent infection of the general system. In primiparæ the uterus often contracted very languidly; and when it did contract well, and expel both the fœtus and the placenta, it was far from uncommon for it to become gradually relaxed; and it was this relaxation which caused the sinuses to become so patent as to admit of purulent infection through them, and which required therefore to be so much guarded against. There could be little doubt that many diseases which had nothing to do with the pregnant state were included under the term "puerperal fever;" also that purulent infection of the general system through the pervious sinuses gave rise to one of the most dangerous affections following parturition. But whether these propositions included all the phenomena observed in puerperal fever, or not, could only be determined by the careful clinical observation of facts, and equally careful examinations after death.

MEDICAL SOCIETY OF LONDON.

Monday, December 16, 1867.

Mr. Henry Smith, President, in the Chair.

Dr. Greenhalgh showed and explained an ingenious pelvimeter by which the pelvis might be measured more accurately than by any other instrument of the kind.

The President exhibited the upper end of the femur which he had removed nine weeks previous from a little boy who had been suffering for nearly a year from disease of the hip-joint. On performing the operation the head of the femur was found dislocated on the posterior lip of the acetabulum, and this cavity was filled up with a fibrous deposit. The head of the bone was deprived of cartilage over half of its extent. The patient was now progressing favourably.

The President also showed the parts concerned in a bony anchylosis of the elbow-joint after severe injury. The operation was undertaken to remedy deformity, and an angular wedge of bone was removed.

Dr. Sansom then read a paper on

ZYMOSIS WITH SPECIAL REFERENCE TO CHOLERA.

The author commenced by giving an outline of the theory of zymosis. In tracing the origin of infecting particles, we may, he said, divide them into two classes—First, those arising from the animal world, such as variola, vaccine, pyæmia; and secondly, those arising from the vegetable world, as favus, thrush, and, if we are to believe a large mass of scientific evidence, diphtheria, ague, &c. But whether animal or vegetable, it cannot be determined with accuracy whether the materies morbi is, at the period of infection, one or the other. It is best, under such circumstances, to call it "germinal matter." Dr. Sansom then related a series of cases which had occurred in his practice, all of which were united by close relations of time, place, and circumstances, and in one of which the "oidium albicans" was discovered as a prime factor in the disease. The author then discussed the operation of disinfectants. He divided them into three classes—First, those which alter the chemical constitution of the materies morbi, such as chlorine and iodine; secondly, those which act partly chemically and partly vitally, such as the sulphites; and thirdly, those which act only on organised material, arresting vitality, such as carbolic acid. The treatment of zymotic disease by the internal administration of the sulphites was then considered, and forty-one cases were brought forward in which they had been employed, and in which one death only occurred. The facts seemed to be that the sulphites are the most easily absorbed of our internal antiseptics, but that carbolic acid is the most powerful. The author concluded by saying that the great desideratum was a salt which should combine the two. This desideratum Dr. Sansom had succeeded in fulfilling, and specimens of compound salts, the sulpho-carbolates, were exhibited to the Society.

An animated discussion then ensued, in which Dr. Routh, Dr. Hare, Dr. Symes Thompson, and others took part.

MONDAY, JANUARY 20, 1868.

MR. HENRY SMITH, President, in the Chair.

MR. GAY read the paper of the evening on

VARICOSITY IN RELATION TO ULCER.

He commenced by saying that his classification of ulcers was based on the pathology of the disease. He divided them into three classes—1st, the idiopathic; 2nd, the venous; and 3rd, the arterial. The first variety, he said, depended on some peculiarity, local only, of the vascular system, and was usually situated between the ankle joint and the calf of the leg. In the treatment of this, the author advocated rest; and if the ulcer became chronic, and its base thickened, recommended a lotion of nitric acid and opium, or even in some cases a blister to the part. The typical form of this ulcer was "the broken skin." In speaking of the second variety, or "venous ulcer," the author said this was frequently associated with a peculiar bronzing of the skin which might be traced to obstruction by clot of either the saphenous vein or the deep venous trunks generally of the latter. In treating this form of ulcer, Mr. Gay recommended free elliptical incisions along either side of the ulcer as being the only plan to insure a permanent cicatrisation. The author then dwelt on the so-called "varicose ulcer," and spoke of the complete uselessness, as he thought, of the spiral bandages. He said that, as a rule, varicose veins are not endowed with valves, and that, in the veins in which they do exist, the current of blood is not interrupted by the valves. The bandage, on the other hand, does interrupt the current of the blood. He then passed on to the third variety of ulcer, "the arterial," which might invariably be traced to disease of the arteries, especially of the anterior and posterior tibial. This ulcer very often occupies the whole of the leg, and spreads so as to invade every structure with which it comes in contact. Amputation in such cases was a very hazardous proceeding. Rest and opiates were the most suitable remedies.

In the discussion which followed, the President, Mr. Bryant, Dr. Head, Mr. Adams, and others, took part.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, JANUARY 18.

JOHN LIDDLE, Esq., Chairman.

MR. ALFRED HAVILAND read a paper on

THE CONNEXION BETWEEN GEOLOGY AND SANITARY SCIENCE,

of which the following is an abstract:—The connexion between the soil of a site and the health of its inhabitants was too self-evident to escape the penetrating mind of Hippocrates; the subject, therefore, of the connexion between geology and sanitary science is not a new one, but, like many others that this great Physician saw the importance of studying, it has too long remained unacknowledged as a necessary part of Medical education. Meteorology suffered the same fate until within the last few years; but the time has arrived for its importance in Medicine to be acknowledged, and, doubtless, before long geology will take such a rank among our studies as it well deserves, and one which would certainly have been accorded to it long ago, had it had an advocate like the master-mind of the great Coan Physician. The relation of the quality of the earth's crust to the air we breathe and the water we drink is so manifest, that it would be unnecessary here to dwell upon it, were it not a subject upon which the general public are grossly ignorant. The public have yet to learn much, for they have to relearn lessons that have been taught them at a great expense of money and valuable life. Every day we have revealed to us some lamentable sacrifice of human life, because an oft-taught lesson has remained unheeded. In their panic and distress, the public fly to us for help, too often when it is too late, when the evil is in their homes and is already wide-spread. The same state of things that existed at Terling before the outbreak of the fever is existing now in hundreds of towns and villages, and it is only by studying the geological relations of such places that we shall ever be enabled to give the requisite advice how to act so as to prevent a similar disease-explosion. The author reviewed the observations of Hippocrates on the modifying effects of the soil both on the character and the diseases of man. He instanced Athens as a city built upon the most desirable site, but eventually becoming a resting-place for vagabond epidemics, in consequence of the inhabitants polluting their dry, friable soil with abominations from their houses. The author considered that the post-tertiary formations, or really those that are accumulating under our own observation, rank first in importance in their relations to health; and next to these belongs the tertiary or kainozoic period. He believes that there is constantly going on, in the deltas and on the banks of our rivers, a process of sealing-up of the results of putrefaction of dead animal and vegetable matter, which is every now and then exposed by temporary denudation. The nature of the poisons which result from animal and vegetable decay, and of organic poisons generally, is most imperfectly known; and although Dr. Richardson had thrown much light upon this subject, still we are unable to define or separate the poison in the stale mussel that produces the nettle rash, or that in the musty straw which produced in the army, in the late American war, a rash closely allied to measles. Neither can we say whether those poisons have a vegetable or an animal origin, which the rays of the sun draw forth from the oozy bed of the Gangetic delta to produce cholera, or from that of the Nile to produce plague, or from that of the Mississippi to produce yellow fever. As illustrations of the sealing-up of organic poisons, Mr. Haviland alluded to the remarkable fact that, in the city of New Orleans, the epidemic of yellow fever was always intensified after excavation in the alluvial soil of the site of the city; in fact, any great work, such as draining, laying down gas-pipes, or cutting canals, is sure to be followed by an immense rise in the mortality from yellow fever. It is only, therefore, natural to conclude that the soil does contain within itself, sealed up, a poison which is capable not only of intensifying, but of originating, this peculiar disease. The author remembered well an epidemic which attacked a little village on the banks of the river Parrett, in Somersetshire, during the winter of 1855-6. It was characterised by intense heat of the skin, brown tongue, and *boils* in the axillæ, groins, and nates; in one instance, the right mamma of a girl about 17 was the seat of the tumour, which ended in an abscess. There was also either profuse diarrhœa or obstinate constipation and tympanites. In a population of about 300, there were nine deaths among the seventy cases that occurred. The cause of this fever was not at first apparent, until it was found that it was limited to the families who occupied the houses immediately looking towards the west bank of the river. On inquiry, it was found that, about six weeks before the disease broke out, the fishermen had taken an immense quantity of one of the ray tribe, called the thornback, and that they had been in the habit of cutting off the unsaleable portions and throwing them aside on the bank, where they had been allowed to accumulate in large quantities over an extensive surface; the tide, however, had eventually washed the offal away, so that not a vestige was left at the time of the inquiry. When the tides declined, the surface became exposed to the direct rays of the sun, and whenever the breeze set in towards the village, the stench from the mud, which had entrapped the drainings from these putrid fish, became so intolerable, that all doors and windows had to be immediately closed, and kept so until a change took place. The succeeding high tides, however, added a layer of silt and clay over the polluted site, and so sealed the poison in, that the sense of smell could no longer detect it; but, being anxious to discover whether the poison had really been washed out or only entrapped, the author caused a certain spot far from the dwellings to be dug up, whereupon the characteristic stench immediately reappeared, and became so powerful by the sun's rays, that he was exceedingly anxious to cover the spot up again, and throw the contents of the hole into the river. It would have been well could the whole infected area have been thrown after them. Judging from what takes place at the present day, it is but reasonable to suppose that in ages past the soft ooze of the sea or the river-bed became the receptacles of organic poisons, and it certainly is within the range of probability that there are still stored up in the strata of the earth poisons which we know nothing about. We do not know that any of the organic matter of an ichthyosaurus remains in the lias, capable of generating disease by dissemination in the springs of water which we drink; but we do know that there are poisonous gases of an organic origin in the coal seams, which are capable of destroying life, and that instantly. This is a subject that requires much consideration. We know not what

poisons are locked up in our earth's crust; in the latest formations we have evidence of their daily accumulation at the mouths and on the banks of rivers. It behoves us, therefore, to examine into the possibility of either animal or vegetable poisons remaining undecomposed and active amid the soil washed from the elevated portions of our globe. The soakage of poisons into the soil and their retention there may often account for sudden and unexpected outbreaks of epidemics, and as the earth's crust is continually subject to upheavals and consequent displacement of its strata, we are never certain how these changes may affect us. One thing, however, is certain: that by studying geology with one object always before us—that of applying our knowledge to such things as are within our power—we shall be able to do much towards preventing disease and death. We must teach the public plainly, for there is an idea abroad that geology is an abstruse science, and one only to be approached by the learned and the rich; of this error we must disabuse all who hold it. We must teach plainly that men can contaminate, by their want of forethought and ignorance, the most splendid geological site imaginable, and render it pestiferous; that even if they chose such an island as Thasos, composed of pure white marble, with mines of gold and silver, and surrounded with the pure air floating over the Ægean Sea, they might make it pestiferous by their habitations and their dirty habits, as did the Thasians in the time of Hippocrates; that if they choose a gravelly soil, with all its advantages, and dig wells into it for water, and then saturate it with their excreta, they must expect cholera, typhoid fever, and a host of ills which a little common sense would have obviated. We must teach them not to place their cemeteries in such positions outside their towns and villages as to lie between them and the sources of their water supply. We must teach them also that the water collected from the sides of our primitive rocks is more abundant and more pure than from any other shed, and that wells ought to be regarded with suspicion at all times. Lastly, it is incumbent upon the members of the Medical Profession, having a heavy responsibility on them in all matters connected with the public health, to do their utmost to obtain a general survey of the country, so as to enable them to point out to Government where danger really is lurking. Until this is done, the author felt confident, knowing, as he did, the extent of the evil in his own native county and elsewhere, that there would be constantly recurring such instances as have been lately recorded. In conclusion, he urged the necessity of taking all power out of the hands of local authorities, inasmuch as they always have personal and local interests to subserve. The work ought to be thoroughly done, and every town and village ought to be made to do not only its duty towards itself, but its duty towards its neighbour.

OBITUARY.

INSPECTOR-GENERAL MAHONY, M.D.

The Army Medical Department has recently lost from its ranks two of its oldest and most distinguished members—Inspector-General Dr. John Davy, F.R.S.; and Inspector-General Dr. Mahony. No one in the department had contributed so largely to natural science and literature as the former; no one had been so constantly engaged in active field service during the Peninsular period as the latter. Both were on the verge of becoming octogenarians, and both expired within a few hours of each other: Dr. Davy on the 24th ultimo, Dr. Mahony on the day following. The following record of Inspector-General Dr. Mahony's military services is extracted from the Annual Army List:—"Dr. Mahony served in the Peninsula from April, 1809, to the end of the war, including the passage of the Douro, battle of Talavera (taken prisoner and marched to Verdun), battle of Busaco, siege of Olivença, battle of Albuhera, affair of Aldrea de Ponte, sieges of Ciudad Rodrigo and Badajoz, battle of Salamanca, capture of Madrid, battle of Vittoria, affair of Roncesvalles, battle near Pampeluna, affair of Echalar, assault of San Sebastian, battles of Nivelle, Orthes, and Toulouse. Present in the attack on New Orleans, January 8, 1815; and subsequently at the capture of Paris. Has the war medal and thirteen clasps." Dr. Mahony entered the Army as Assistant-Surgeon in September, 1808, and was promoted to the rank of Inspector-General in January, 1849, when he retired on half-pay. He was in the receipt of one of the eight good service pensions of £100 a year allotted to the Medical Department of the Army.

WILLIAM HERAPATH, F.C.S.

Another of the men well known in the Profession has passed away; for although Mr. Herapath was no Surgeon or Physician, still his knowledge of chemistry, especially of toxicological chemistry, was such as to lead to his being extensively consulted in cases of suspected poisoning. He was born in Bristol in 1796, so that he was 72 years old when he died; but even at that advanced age he was active, both mentally and bodily, up to a recent date. Latterly, however, diabetes, the disease to which he ultimately succumbed, seized upon him, and devoured the strength of an unusually hale and vigorous old age. In early life he was intended to follow his father's occupation, that of a maltster; but entering somewhat deeply into the theoretical part of this business, he became so enamoured of chemical science—then, we might say, in its infancy almost—that he abandoned maltmaking for chemistry. In 1835 he was called upon for the first time to investigate a case of poisoning, the organs of Mrs. Smith being submitted to him for examination. The exactness of his methods and the care displayed in the analysis attracted attention, and since that period he has been constantly occupied, to a greater or less extent, with toxicology. Most cases of suspected poisoning in the Western Circuit have been submitted to him for many years back. It is, however, with the celebrated case of Palmer that his name is most closely associated; he appeared for the losing and, we must think, wrong side—in other words, as the defendant of Palmer. But he came forward on no theoretical grounds; he held that strychnia is not the difficult substance to discover that it had been made out to be—an assertion since most amply confirmed, although probably not to the extent he himself at that time believed. He has been reprobated for his appearance in this case; but, with the above solid groundwork on which to go, we cannot help thinking that he acted in accordance with the dictates of an honest conscience. We shall not pass in review his various researches in toxicology, nor do more than refer to his extensive practical knowledge of agricultural and manufacturing chemistry acquired by many years of arduous work. But there was another side to Mr. Herapath's character—a side better known to those of his native city than to those at a distance: he was more especially in early life a keen and ardent politician, anxious for an extended franchise and doing all he could to bring that about. He was a leader of that party which was instrumental in bringing about the fearful Bristol riots; but Mr. Herapath was on the side of law and order, and had the vacillating magistracy only complied with his suggestions, much of the dreadful calamity might have been averted. Not very long after this, he was elected to the Town Council, and until 1863 continued to perform his duties in this capacity with zeal and energy, ever seeking the advancement of his native city. Mr. Herapath was considered by many men *brusque* and almost rude; we never found him other than kind and courteous, always anxious to give of his stores of knowledge to those who sought it in a proper spirit. But now he has passed away, and with him, we fear, much valuable information; for we know that he had long been engaged in researches as to the toxicology and chemistry of the vegetable alkaloids, and his results may not have been all committed to writing.

Mr. Herapath was a Fellow of the Chemical Society, being, in fact, one of its founders; as he also was of the Bristol Medical School, in which he for many years held the chair of Chemistry and Toxicology.

NEW BOOKS, WITH SHORT CRITIQUES.

A Manual of Inorganic Chemistry. By C. W. Eliot, Professor of Analytical Chemistry, and M. E. Storer, M.D. Harvard University, and Frank H. Storer, Professor of General and Industrial Chemistry, in the Massachusetts Institute of Technology. Second Edition. London: Van Voorst. Pp. 664.

*** The great feature in this work is the number of experiments detailed, it being intended to enable the student, or, failing him, the teacher, to make for every experiment of a new experiment. The new notation employed—one capable to a certain extent of being applied to giving a great number of hints for the most useful laboratory work is the model constructing various products and manipulations. The account given of each element and its compounds is very full and complete.

Plastics. A New Classification and a Brief Exposition of Plastic Surgery. By D. Prince, M.D. Philadelphia: Lindsay and Blakiston. Pp. 96.

*** Dr. Prince's name is favourably well known in connexion with the subject in which he now writes, even on this side the Atlantic. The work is assuredly but briefly dealt with, the principles being stated rather than the details. The work originally constituted a portion of the Transactions of the Illinois State Medical Society for 1867.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Monday, February 17, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Bryan, John Morgan, Northampton
Chipman, Charles William, Guy's Hospital.
Kemp, William George, St. Bartholomew's Hospital.
Maddox, William Gordon, University College Hospital
Trevor, Arthur Tudor Humphreys, Bethlehem Hospital.
Willoughby, Edward Francis, Redland, Bristol.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 13, 1868:—

Evans, Ernest Thomson Raimbach, Jersey.
Pullan, Henry William, Epworth, Bawtry
Thomson, William, M.B., Wantage, Berks.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Names of Candidates who passed the major examination as Pharmaceutical Chemists on February 19:—

Bailey, Henry Frederick, Newport Pagnell.
Kent, Thomas Ramsey, London.
Merle, Léonce, Mauritius.
Perry, William Henry, Louth.
Wallis, John Thomas Ward, Grantham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ATKINSON, F. P., M.D.—District Surgeon to the Royal South London Dispensary.

BARNES, HENRY, M.D. Edin.—Honorary Physician to the Carlisle Dispensary

BATEMAN, W. A. F., M.R.C.S.E.—Medical Officer to the Richmond Infirmary.

CHAPMAN, F., M.R.C.S.E.—A Medical Officer to the Richmond Infirmary.

COLEMAN, A., M.R.C.S.E., etc.—Dental Surgeon to the Dental Hospital of London, *vice* S. Cartwright, F.R.C.S., resigned.

COYHILL, J. D. M., M.D., C.M., late Surgeon 2nd Regiment Lanark Militia.—An Assistant Colonial Surgeon on the Ceylon Establishment, and gazetted on December 23 last to assume Medical charge of the Government Civil Hospital, Jail, and Police of Mátalé, Kandy.

DOBSON, NELSON C., M.R.C.S. Eng.—House-Surgeon to the Bristol General Hospital, *vice* J. B. Siddall, M.D., resigned.

DUNCAN, T., M.D.—A Medical Officer to the Richmond Infirmary.

GRANT, B. J. M., Certifying Factory Surgeon—Medical Officer for the District of Cubitt-town, Poplar Union

HART, E. A., M.R.C.S.E.—Ophthalmic Surgeon to the French Hospital.

JULIUS, F. G., M.D.—A Medical Officer to the Richmond Infirmary.

LAWSON, H., M.D.—Assistant-Physician to St. Mary's Hospital.

MAYBURG, A. K., M.D.—A Medical Officer to the Richmond Infirmary.

SIMMS, F., M.B.—Assistant-Physician to the West London Hospital, Hammersmith.

WARWICK, R., F.R.C.S.E.—A Medical Officer to the Richmond Infirmary.

WARWICK, R. A., M.D.—A Medical Officer and Honorary Secretary to the Richmond Infirmary.

WITHECOMBE, J. R., M.D.—A Medical Officer to the Richmond Infirmary.

NAVAL AND MILITARY APPOINTMENTS

BARKER, J., Staff Assistant-Surgeon 41st Foot.—Assistant-Surgeon.

BEALE, R. H., Assistant-Surgeon, from the 1st Foot.—Staff Surgeon.

BRODIE, J. F., Staff Assistant-Surgeon.—Assistant-Surgeon.

GARDINER, W. A., Staff Assistant-Surgeon Royal Artillery.—Assistant-Surgeon.

HARDINGE, E., Assistant-Surgeon, from the Royal Artillery.—Staff Assistant-Surgeon.

HARRIS, W. H., Assistant-Surgeon, from the Royal Artillery.—Staff Surgeon.

HOME, A. D., Surgeon-Major, C.B., from the 35th Foot.—Staff Surgeon-Major.

JAMIESON, W. H., Staff Assistant-Surgeon 41st Regiment.—Assistant-Surgeon.

KILGOUR, P., Staff Surgeon 13th Foot.—Surgeon.

O'BRIEN, H. J., M.B., Staff Assistant-Surgeon 8th Foot.—Assistant-Surgeon.

O'DWYER, T. F., Assistant-Surgeon, from the 22nd Foot.—Staff Assistant-Surgeon.

PORTEOUS, H. W., Deputy Inspector-General of Hospitals Madras Establishment.—Inspector-General of Hospitals.

POULTON, C. W., M.D., Staff Surgeon 35th Foot.—Surgeon.

RANDELL, H. L., Assistant-Surgeon Royal Artillery.—Surgeon General to the Government of the Straits Settlements.

ROSE, H. J., Staff Assistant-Surgeon.—Staff-Surgeon.

SABBEN, J. C.—Deputy Inspector-General of Hospitals and Fleets on the Retired List.

STEUART, W. R., Staff-Surgeon Royal Artillery.—Surgeon.

STUART, J., Assistant-Surgeon, from the 8th Foot.—Staff Assistant-Surgeon.

SUPPLE, J. F., Staff Assistant-Surgeon 1st Foot.—Assistant-Surgeon.

THOMSON, A., M.D., Staff Assistant-Surgeon 23rd Foot.—Assistant-Surgeon.

BIRTHS.

BAILEY.—On February 11, at Godstone, Surrey, the wife of T. Bailey, M.R.C.S.E., of a son.

HILL.—On February 11, at 22, Mecklenburgh-square, the wife of S. Hill, M.D., prematurely, of a daughter.

MARRIAGES.

RICKARDS — RICKARDS. — On February 11, at St. Mary's, Acton, W. Rickards, M.D., to Eleanor, eldest daughter of the late S. Rickards, Esq., Shalimer, Acton.

SALTER—BROWN.—On February 13, at Avebury, by the Rev. Bryan King, Thos. Knight Salter, M.R.C.S. Eng., L.F.P.S.G., Mount-street, London, W., third son of the late Wm. Salter, Esq., Nalands, Wilts, to Catherine, third daughter of George Brown, Esq., Avebury, Wilts.

DEATHS.

ANDERSON, T., M.D., F.R.C.S., and J.P., of St. George, at Brunswick-square, Port of Spain, Trinidad, British West Indies, aged 75.

BROUGHTON, H. H., M.D., J.P. for the West Riding, county York and county Lancaster, at 17, Winckley-square, Preston, on February 14.

HERAPATH, WILLIAM, sen., Esq., F.C.S., J.P., Professor of Chemistry, at the Manor-house, Old-park, Bristol, on February 13, in his 72nd year.

MACAULAY, A., M.D., late of Edinburgh, at 6, Cambridge-gardens, Kilburn, on February 14, aged 85.

MILLER, J., M.D., M.R.C.S., at Annesley Bay, on February 8, aged 30.

VACANCIES.

CAREY-STREET DISPENSARY.—Resident Medical Officer.

DENTAL HOSPITAL OF LONDON, SOHO-SQUARE.—Dental Surgeon.

ROYAL PIMLICO DISPENSARY.—Honorary Medical Officer.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Physician.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Richmond (Surrey) Union.—Mr. Sidney E. Clarke has resigned the Mortlake District; area 2900; population 6075; salary £70 per annum.

APPOINTMENTS.

Hailsham Union.—James P. Billing, L.F.P. and S. Glas., L.S.A., to the Sixth District and the Workhouse.

South Molton Union.—Thomas Sanders, M.R.C.S. Eng., L.S.A., to the Fourth District. Edwin Furse, M.R.C.S. Eng., L.S.A., to the Tenth District.

West Derby Union.—John W. Irvine, M.D. St. And., L.R.C.S. Edin., L.S.A., to the Workhouse.

UNIVERSITY INTELLIGENCE, OXFORD.—MERTON COLLEGE.—On Wednesday, April 22, there will be held in this College an election to one Natural Science Scholarship, value £80 per annum, tenable for five years. Candidates, if members of the University, must not have resided more than six terms. There is no limit of age. Papers will be set in Chemistry, Physics, and Physiology, but candidates are not expected to offer more than one subject. All candidates must bring or send to the Warden, on or before Thursday, April 16, testimonials of good conduct, and, if necessary, certificates of age or standing. The examination will begin on Friday, April 17, at 9.30 a.m. CORONER.—The election of two Coroners for the University will take place this day (Feb. 22). The candidates now in the field are Mr. Frederick Symonds, Fellow of the Royal College of Surgeons of England, the well-known and highly respected Surgeon to the Radcliffe Infirmary; Mr. J. M. Davenport, solicitor, and secretary to the Bishop of Oxford; and Mr. F. P. Morrell, M.A., of St. John's College. The contest, we hear, will be a severe one; but we may confidently hope that the claims of a gentleman of such a wide reputation as Mr. Symonds will not be neglected. The office itself is of little or no pecuniary value; but it will be pleasing to find that the University recognises the Professional services of one who has spent the greater part of his life within her precincts, by enrolling him among her officers.

UNIVERSITY OF CAMBRIDGE.—It appears that all undergraduates of Oxford and Cambridge may be candidates at the examination for the Natural Science Scholarship at Trinity College, and not merely those in their first year, as

might be inferred from the announcement recently made. The examination will be in Easter week, and candidates must send in their names, as well as the subjects in which they wish to be examined, to the Master of the College, before March 18. Further information may be obtained from the Rev. E. Blore, tutor of the College.

THE UNIVERSITY OF EDINBURGH.—We hear that a lady has presented £1000 for the purpose of founding a Medical Scholarship in the University of Edinburgh.

WE understand that the following gentlemen have been selected by the joint Committees of the Queen's and Sydenham Colleges to fill the Professorial Chairs in the Medical Department of Queen's College under its new *régime*. They will have to be elected by the Council when all negotiations are completed:—*Anatomy, Descriptive and Surgical:* Mr. Bracey and Mr. Goodall. *Anatomy, Demonstrations:* Dr. James Hinds and Dr. Thomas. *Physiology:* Dr. Norris and Mr. Bartleet. *Principles and Practice of Surgery.* Mr. Pemberton and Mr. F. Jordan. *Principles and Practice of Medicine:* Dr. Russell and Dr. Foster. *Theoretical Chemistry:* Dr. A. Hill. *Botany:* Dr. Wm. Hind. *Forensic Medicine and Toxicology:* Mr. Swain and Dr. A. Hill. *Midwifery:* Mr. Clay and Mr. Bassett. *Practical Chemistry:* Mr. A. Anderson. *Materia Medica and Therapeutics.* Mr. Wilders and Dr. Mackay. *Diseases of Children:* Dr. R. C. Jordan. *Clinical Midwifery and Diseases of Women:* Mr. Berry. *Dental Physiology and Surgery:* Mr. Hawkins. *Comparative Anatomy and Zoology:* Dr. Savage. Mr Bates, Mathematical Tutor to the students of the Medical Department.

THE Radcliffe Travelling Fellowship has been awarded to Mr. E. J. Sparks, B.A., of Corpus. Mr. Sparks was placed in the first class in natural science in Michaelmas term, 1866.

MERCANTILE MARINE.—Dr. Arthur Austin Davis, M.R.C.S. Eng., etc., has just been appointed an Inspector of Antiscorbutics, under the recent Merchant Shipping Act, for the port of Fowey, Cornwall.

THE nobility and gentry of the county of Wilts propose to enlarge the Salisbury Infirmary at the cost of about £10,000.

THE BRITISH LYING-IN HOSPITAL.—We are informed that Dr. Gustavus Murray has resigned the Physiciancy to this Institution.

MEMORIALS have been presented by the Medical students of Aberdeen to Professor Pirrie, of that University, and to Drs. Keith and Fiddes, Surgeons to the Royal Infirmary, congratulating them on the success of their endeavours to improve and extend the practice of acupressure.

THE annual dinner of the Hunterian Society, under the presidency of Mr. John Jackson, was held at the London Tavern on the 14th inst. Among the visitors we noticed Prof. Owen; Mr. Gassiot, Vice-President of the London Institution; Mr. Brailey, the Librarian; the President of the Medical Society, and others. At the general meeting of the Society, the following gentlemen were elected to office for the ensuing year:—*President:* Dr. Peacock. *Vice-Presidents:* Drs. Hess and Fotherby, and Messrs. Dukes and Corner. *Treasurer:* Dr. Cooke. For the Oration of 1869: Dr. Fotherby. *Librarian:* Dr. Fowler. *Secretaries:* Mr. Allingham and Dr. Phillips. *Council:* Drs. Barnes, Burchell, Dickson, Braxton Hicks, Kingsford, Sutton, Williamson, and Messrs. Brown, Bryant, Jackson, Little, and Maunder.

MEDICAL ABODES IN FRANCE.—The plan of residing in "flats" in Paris and the other large towns may have its conveniences to the general public, as tending to economising servants and other advantages; but for the Medical Practitioner it is often a source of annoyance. He meets with the greatest difficulty in getting eligible accommodation, owing to the "propriétaires" refusing to take him, or charging him with extra exorbitance. Owing to the irregular and late hours his avocations compel him to keep, he has come to be regarded as a species of nuisance by those important persons the "portiers" and "portières," as well as by his fellow-lodgers. M. Caffe is so annoyed at these procedures that he proposes a kind of league among Doctors for placing those houses who refuse them as tenants under an interdict whenever their services are required there. M. Diday observes that of course so radical a remedy is not seriously offered, but adds that it is remarkable that the very persons who would be the first to blame the Doctor for not disturbing himself whenever sent for, are so dreadfully irritable if their quietude is at all interfered with by such disturbance.

ON Saturday evening a large number of the most prominent Physicians in London assembled at the house of Dr. G. Johnson to inspect certain specimens of arteries removed from various tissues of the body, as the kidney, skin, pia mater, intestine, etc., showing much hypertrophy of their muscular walls. As is now admitted, the function of the muscular portion of the walls of the smaller vessels is to regulate the supply of blood sent to a part, so that hypertrophy of this would seem to indicate long-continued contraction, and consequently obstruction to the flow of the blood. The specimens referred to were first described by Dr. Johnson in a paper read before the Royal Medical and Chirurgical Society last session.

LAST year the Worcestershire Medical men united themselves to form a society for social and intellectual purposes. Mr. C. W. Hastings presented to them the valuable library of his father, Sir C. Hastings, and a room has been provided for its reception, and to serve as the head-quarters of the Society. The first annual meeting has just passed, and the report submitted to us shows that the Society is in a fair way to attain complete success. At the quarterly meetings papers by the members are read, some of them being of great value. The Society numbers among its members men of unwonted experience, whose observations cannot fail to be useful and profitable to all. We observe that they recommend the country portion of their brethren to refuse all clubs under four shillings a head, and advise that those belonging to the city should have more. We wish them all success.

MEDICAL CHARITIES.—The friends of the following institutions will be glad to learn that the late Mr. William Nicholson, the well-known silversmith, of Duke-street, Lincoln's-inn-fields, who died recently, has bequeathed £300 each to the Aylesbury Infirmary and the Asylum for Incurables, and £200 each to the Royal Free Hospital, Gray's-inn-road, the Asylum for Idiots at Earlswood, the Cripples' Home, and the Hospital for Sick Children, besides large sums to other charities not strictly Medical. Mr. John Hague, of Crow Nest, Dewsbury, Yorkshire, has also bequeathed £500 to the Leeds Infirmary, making a total of £1900 for Medical charities only. Miss Elizabeth F. Wyatt, of Oxford-terrace, has bequeathed to the Royal Free Hospital £300, St. Mary's Hospital £300, and to the Central London Ophthalmic Hospital £200.

ACUPRESSURE.—Slow as our London Surgeons are in adopting acupressure, its advocates are multiplying on every side. Professor Billroth, Professor of Clinical Surgery, formerly of Zurich, and now of Vienna—a higher authority than whom does not exist—terminates a series of papers in the Vienna *Wochenschrift* in these terms:—"To express, in a few words, my opinion on acupressure, so far as I can judge from my own experience, I may say that in most cases it may supply the place of the ligature, and that it possesses some considerable advantages over this, especially in rendering the healing of a large wounded surface by the first intention possible, which is an undeniable advantage to the patient. For all uses this procedure is well worthy of further examination and perfection."

THE NEW AUSTRIAN MINISTER OF THE INTERIOR.—The Vienna journals are congratulating themselves on having in Dr. Giskra, the new Minister of the Interior, a Parliamentary minister, with the requisite ability and disposition to carry through the legislative measures required for sanitary measures and Medical education. A more acceptable new-year's gift, they say, could not have been made to the Profession. The enlightened course the Austrian Government is now pursuing in both political and domestic matters cannot but be gratifying to the friends of rational progress.

HOT BATH IN ERYSIPELAS AMBULANS OF YOUNG INFANTS.—Professor Abeling, of Stockholm, speaks in the highest terms of treating this form of infantile erysipelas by means of hot water. The infant is put into the bath at a temperature of 38° C. (100° F.), and hot water is gradually added until a temperature of from 40° to 42° C. (105° to 110° F.) is attained. After from ten to thirty minutes, according to the age and strength of the child and the influence produced, it is removed and wrapped in warm linen, which is covered over with a warm blanket. In this it is allowed to remain for two hours. Usually it at once falls into a tranquil sleep; but when this is not the case a teaspoonful of cold water is repeatedly given. In bad cases the bath is given twice a day, but in ordinary cases only once, continuing it until improvement is effected.—*Journal für Kinderkrankheiten*, October.

THE PARIS MEDICO-LEGAL SOCIETY.—A new society has just been founded by fifty Physicians and barristers, to be called the Society of Legal Medicine. It has for its object the study and development of all questions which have either a near or distant relation to legal Medicine, properly so called, or to Medical Jurisprudence; and, if required, it will be ready to furnish independent and disinterested aid to justice. It will have a permanent committee also of eleven members, prepared to respond to all urgent demands for advice addressed to it by Medical Practitioners, who may freely resort to it for aid on the occurrence of any difficult case before the tribunals. In order to render its operations as comprehensive as possible, it will admit as members Medical Practitioners, advocates, jurisconsults, official experts, alienists, hygienists, anatomists, syphilographers, accoucheurs, chemists, toxicologists, micrographers, and pharmaciens. M. Devergie has been chosen as first President. MM. Vernois and Paul Andral are Vice-Presidents, and MM. Rothschild and Legrand du Saule Secretaries.

A SLEEPING GIRL.—Dr. Hart, of New York, gives an account of a girl whose case has become famous in Kentucky. Practising in that State in 1865, he went, in July, to Hickman, where she lived, in order to investigate the matter in company with some other Medical men. He there learned that Miss Godsy, aged 22, and of a bilious temperament, had been in a state of somnolency since 1849, when she was 8 years of age. Until a year before then she had always been very well, but at that period she became the subject of intermittent fever, for the relief of which a good deal of opium was used. A few months after recovery excessive somnolency began to appear, and since 1857, when she had an attack of scarlatina and measles, it has continued more profound. The "lucid intervals" will occur from four to six times a day, lasting from five to ten minutes, during which she will generally take some nourishment, then relapsing into profound sleep, from which it is impossible to rouse her. There is nothing very remarkable in her appearance. The catamenia are irregular and painful. None of the senses seem impaired or perverted. She answers questions in a clear manner, but only in monosyllables, falling asleep while being interrogated.—*New York Journal*, December, 1867.

"SCIENCE" AND "EXPERIENCE."—The larger aim of scientific training is to furnish you with principles to which you will be able to refer isolated facts, and so bring these within the range of recorded experience. . . We must not expect too much from "science" as distinguished from common experience. There are ten thousand experimenters without special apparatus for every one in the laboratory. Accident is the great chemist and toxicologist; battle is the great vivisector; hunger has instituted researches on food such as no Liebig, no Academic Commission, has ever recorded. Medicine—sometimes impertinently, often ignorantly, often carelessly called "allopathy"—appropriates everything, from every source that can be of the slightest use, to anybody who is ailing in any way. It learned from a monk how to use antimony, from a Jesuit how to cure the ague, from a friar how to cut for the stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a postmaster how to sound the Eustachian tube, from a dairymaid how to prevent small-pox, and from an old market woman how to catch the itch insect. It borrowed acupuncture and moxa from the Japanese heathen, and was taught the use of lobelia by the American savage. It stands ready to-day to accept anything from any theorist, from any empiric who can make out a good case for his discovery or his remedy. "Science" is one of its benefactors, but only one out of many. Ask the wisest practising Physician what branches of science help him habitually, and what amount of knowledge relating to each branch for his Professional duties. He will tell you that scientific training has a value independent of all the special knowledge acquired. He will tell you that many facts are explained by studying them in the wider range of related facts to which they belong. He will gratefully recognise that the anatomist has furnished him with indispensable data, that the physiologist has sometimes put him on the track of new modes of treatment, that the chemist has isolated the active principles of his medicines, has taught him how to combine them, has, from time to time, offered him new remedial agencies, and so of others of his allies. But he will also tell you (if I am not mistaken) that his own branch of knowledge is so extensive and so perplexing that he must accept most of his facts ready-made at their hands. He will own to you that in the struggle for life which goes on day and night in our thoughts or in the outside world of nature, much that he learned under the name of science has died out, and that simple homely experience has largely taken the place of that scholastic knowledge to which he, and perhaps some of his instructors, once attached a paramount importance."—Professor Holmes's "Teaching from the Chair and the Bedside," *Boston Journal*, Jan. 9.

DR. PHIPSON ON A NEW MODE OF PREPARING BILIVERDIN.—Dr. Phipson has read before the Chemical Society a valuable communication on this subject, from which we select the following remarks. The biliary concretion referred to was obtained from the liver of a pig, and was of unusual size, and had the following composition:—

Water.
Cholesterin, with a small amount of grease.
Mucus.
Hyocholate of soda, with some hyocholic acid and hyocholine.
Cholepyrrhin (Biliphein.)
Carbonate of lime.
Phosphate of lime.
Soda.
Chloride of sodium.
Caprylic acid, matters not determined, and loss in analysis.

"This kind of biliary concretion is occasionally met with, I believe, in the liver of the ox as well as in that of the pig. The yellow colouring matter, cholepyrrhin (or biliphein), which constitutes the principal portion of it, and the splendid green substance, biliverdin, which is obtained from it, are, without doubt, two of the most interesting organic compounds. The first is probably the same substance that exists in the bile, not only of man, but of all animals; and both present several points of resemblance with chlorophyll, or the green matter of leaves, and xanthophyll, or the yellow substance which takes the place of green chlorophyll in autumn. It has been asserted that the vegetable substance, chlorophyll, exists in certain inferior animals, such as *Hydra viridis* and several *infusoria*. It has also been remarked that chlorophyll has many analogies with the colouring matter of the blood, and, on the other hand, that biliverdin resembles chlorophyll, not only in its properties, but also by its composition. These considerations have led me to endeavour to ascertain whether chlorophyll and biliverdin are really identical in composition, and whether it is chlorophyll or biliverdin which has been found in the inferior animals alluded to. The results of this investigation I reserve for another paper. I will only state here that concretions, such as that which forms the subject of this paper, furnish us with a ready means of obtaining biliverdin in considerable quantities, and that the results of my examination of this substance, and of chlorophyll obtained from the ivy, lead me, so far, to the conclusion that biliverdin differs from chlorophyll only by the elements of two equivalents of carbonic acid. In 1858 I observed (*Comptes Rendus de l'Acad. Paris*) that the yellow colouring matter of leaves in autumn changed to a bright emerald-green in concentrated sulphuric acid. The yellow colouring matter of the concretion here described behaves in the same manner, and biliverdin may be easily prepared from it as follows:—The powder is digested in concentrated sulphuric acid at the ordinary temperature until the whole has become a dark emerald-green. It is necessary to add the substance to the acid in small quantities at a time, to avoid a rise of temperature, and to stir the mixture constantly. In a short time the mucus and other matters are destroyed or dissolved, and a dark green fluid is obtained. This is thrown into a large quantity of cold water, when the biliverdin is precipitated. It must be washed by decantation several times, and not upon a paper filter, which it clogs in a little time more or less completely. The product is finally dissolved in alcohol, which leaves it quite pure on evaporation. If the quantity obtained is small, it is left as a hard green varnish, which will not allow water to permeate through it; it is quite devoid of crystallisation. The biliverdin prepared by concentrated sulphuric acid, as already described, dissolves entirely in alcohol with a magnificent green colour, which is very permanent. Even sulphurous acid and nascent hydrogen have no action upon it, after being left in contact with them for several hours, or even for days. On the contrary, the yellow substance from which it is derived has a great tendency to turn green, and is even affected by the action of light, which causes it to become much paler, and, in fact, after some time, nearly white. If biliverdin could be obtained in large quantities, it would be a most valuable tinctorial

substance, equalled in brilliancy by no green colour hitherto produced."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

G. L., M.R.C.S.—In Surgical only.

E[illegible]—Dr. G. A. Jeffery is thanked.

F. G.—The [illegible] is one of two guineas.

Dr. T. R. [illegible]—We think [illegible] however, but recommend you to consult an attorney.

A Provincial Surgeon.—The bismuths are made by Huntley and Palmer, of Reading.

A Constant Reader.—Watson's Lectures on Medicine, Aitken's Science and Practice of Medicine, Dr. Barlow's Manual (John Churchill and Sons).

Mr. Maples.—The regulation which formerly permitted graduates in Medicine of your University to escape the anatomical and physiological examination for the Fellowship has been rescinded. From inquiries made, it appears no exception can be made in your case.

Obstetricus.—To Dr. Bennet is due the credit. It was first used in England on a large scale by Mr. Oliver Chalk, then resident Medical officer of the Infirmary, Margate.

Histologist.—The lectures of the late Professor Quekett appeared in the *Medical Times*, vol. xxiv., and in the same volume you will find the particulars relating to the "*Quarterly Review* versus the Microscope." The author of the review, it is now well known, was the distinguished naturalist you mention.

We have received a *Rochdale Advertiser* for February 8, containing a correspondence between Mr. J. R. Elliott and a Dr. Hayle, a homœopathic Practitioner of Rochdale. The question at issue between the parties seems to be whether, in a case of [illegible], a Medical man, at a lawyer's request, is entitled to visit another Medical man's patient without the leave either of the Medical attendant or the patient. We certainly think that in common courtesy, to say nothing of Professional etiquette, he should at least endeavour to obtain both before doing so.

Inspector of Seamen.—You will find an account of the composition of the blood in scurvy in the *Medical Times*, vol. xxii., pp. 37 and 150. Apply to the Board of Trade.

A Member.—Mr. Quain is the senior Vice-President. The annual election will take place in July next.

G. H., Leeds.—We do not see that the sections referred to will at all interfere with you. The inspector is surely the best authority on such a point.

A. B. may obtain *animal vaccine* in tubes from M. Chambon, No. 2, Rue Massillon, près l'église Notre Dame, Paris. Address him in French, for he does not understand English.

J. B. H.—[illegible] at St. Andrews. The Edinburgh College of Physicians do not sanction the proceeding; they overlook it.

H. F. S.—The lines of Chaucer are applicable. He studied alchemy under Gower, and wrote as follows:—

"Make privy to your dealing as few as you maie,
For three may keepe councell if twain be awaie."

A Ge[illegible]—"Mr. is a dupeable animal, says Sydney, who adds that "there are quacks in Medicine, quacks in religion; and quacks in politics know this, and act upon that knowledge. There is scarcely any one who may not, like a trout, be taken by tickling."

The Special General Meeting at the British Lying-in Hospital

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I think it right that the Medical Profession should be informed of what took place at the British Lying-in Hospital on Friday last, on the occasion of the special meeting called for the purpose of passing, amongst other [illegible] a resolution requiring Dr. Eastlake [illegible] for the reason assigned in such resolution.

Several gentlemen, most of them leading members of the Medical Profession, wishing to attend the meeting, and finding that they could only do so by making themselves governors of the Hospital, which they would become by the rules of the Hospital on payment of two guineas to "any of the Medical officers," paid Dr. Eastlake sums of two guineas respectively, and attended at the Hospital on the following morning at the time appointed for holding the meeting. I was present, not only as a governor, but also in the capacity of solicitor to Dr. Eastlake.

I [illegible] perhaps to mention that on the [illegible] Dr. Eastlake and Mr. [illegible] Hospital and [illegible] was very much surprised that the Chairman, with another member of the Weekly Board, refused to receive the money, and refused to allow their [illegible] the meeting.

A [illegible] Mr. [illegible] to Dr. Eastlake, and with him called [illegible] Hospital, and looked at the rules of the Hospital, and especially the last one, which is to this effect—"That no new law or regulation shall be valid unless made at a half-yearly general court, or at a special general court called for that purpose"—I advised that no such rule as had been stated to have been passed could be passed at a weekly board meeting, and that, consequently, all those gentlemen who had qualified themselves as governors should attend the meeting.

On our arrival at the Hospital, we found two policemen at the entrance to the Hospital, also policeman No. 104 F guarding what turned out to be the board-room of the day. We were requested to inscribe our names in a book. We did so, and demanded admittance, when our right to be there was denied. It was stated that a resolution had been passed, as before mentioned, and that if we endeavoured to force an entrance we should be prevented doing so by the police. I may mention here that Dr. Eastlake, in my presence, tendered to the collector twenty guineas, the amount received by him from those gentlemen who had become governors. A table was drawn across the door, and a midwife kept guard on the other side of it.

After waiting in the hall some little time, and not wishing to provoke a breach of the peace, and feeling that the meeting was not only an illegal one, but also a packed one, and that anything that was done at it would be entirely invalid, we all withdrew.

I think, Sir, you will agree with me that, in common justice to Dr. Eastlake, these facts should be known to the Medical Profession.

I am, &c.

1, Trinity place, Charing-cross, Feb. 18. RICHARD DICKSON.

The British Lying-in Hospital.

*** We have received the following letter from Miss Firth, the midwife who had charge of the case referred to in Dr. Eastlake's letter which appeared in our number of February 8. We publish the letter *in extenso* only in deference to Miss Firth's repeated requests; otherwise we should, in kindness to our correspondent, have exercised the editorial pruning knife. The letter, it will be seen, fully admits Dr. Eastlake's main allegations—the employment of the forceps in Dr. Eastlake's absence, and the complete silence of Miss Firth and her colleague on the subject before and after the delivery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you oblige me by giving publicity to the following statements?

1st. That I have in my possession certain letters, countersigned by Dr. Eastlake, in which it is stated that I have personally and successfully delivered with forceps.

2nd. That Dr. Eastlake has been present when I have done so.

3rd. That twice, when Dr. Eastlake has been leaving town, he has authorised Miss Hodges and myself to attend to any cases where forceps might be required, without sending for further assistance.

With regard to the case of which Dr. Eastlake wrote in your journal of February 1 and 8, I wish to say that, having carefully watched the patient for eight hours, I considered delivery imperative. That I wrote to Dr. Eastlake as follows:—

"Here is a case which must either be one for the high forceps operation or craniotomy; the action of the uterus is too feeble to have any effect, and the woman is now having cramping pains and is more sick than I like. 3 a.m."

After more than an hour's delay, Dr. Eastlake came, examined, and, although the os uteri had been almost fully dilated and the "waters" escaped for about nine hours, and although the patient was excessively sick, he declined any interference, but promised to come again between 10 and 2 o'clock. About 2 p.m. I went again to see the patient, and finding, to my surprise, that Dr. Eastlake had not been, and that the poor woman had aggravated symptoms of exhaustion, and that there was no advance of the head, I was induced to ask Miss Hodges to make use of the forceps with a view of terminating the labour. This was done with the full knowledge of herself and her friends; but, after passing one blade, more difficulty was experienced than was anticipated, and no further attempt on our part was made. No injury accrued either to mother or child; the "funis and hand" were not "prolapsed;" the "brow" never presented.

I did not know until next day that Dr. Eastlake was not informed of the use of the forceps, and sought for an opportunity of naming it to him, but he was gone out of town, and before his return I had to go on to the Continent. Present at the case the whole time was a pupil-midwife, from whom I was sure Dr. Eastlake would hear of it, and who, soon after his return to town, told him.

Some time after, when Dr. Eastlake conjectured that I had proposed that the students of the Ladies' Medical College should work the British Lying-in Hospital, he, five weeks after the delivery, called upon the patient, and, by dint of threats on his part, and "charitable visitation" on the part of Mrs. Eastlake, the woman was induced to make a complaint, [illegible] Dr. Eastlake knew that there was to [illegible] I am, &c.

54, Davies-street, W., February 19. MARIA FIRTH.

Pellet's Mustard Leaves.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I cannot thank you sufficiently for making known to me these excellent mustard leaves as substitutes for mustard poultices. Being ill, [illegible] I should find it very difficult to get the usual mustard mixed and applied. I could [illegible] trouble, and their [illegible] I am, &c. MEDICUS.

[illegible]

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR, In [illegible] included. [illegible] and, from its [illegible] character, would [illegible] days.

I am, &c. X.

A Congenital Malformation of the Abdomen.

To the Editor of the Medical Times and Gazette.

Sir,—Should you think the following case of sufficient interest, perhaps you will kindly find a place for it in the columns of your valuable journal.—

On Monday, February 11, 1868, I was called upon to attend S. A. H., in labour with her first child (illegitimate), she having been in labour about 76 hours. Upon examination I found the labour progressing favourably, though slowly; it continued to do so for some hours, till the woman began to get exhausted, when I administered a dose of ergot, and the child was soon expelled. Upon proceeding to tie the cord, judge of my surprise and alarm at seeing the bed full of intestines. I speedily separated the child, and found almost the whole of both large and small intestines protruding through an opening in the abdominal walls, situated to the right and a little below the insertion of the cord, and about three-quarters of an inch in diameter. The child, which was a female, was small, but at the full period. The protruded intestines were congested, and of a brownish-yellow colour, like bile. I endeavoured to replace them, but the abdomen, being so small, would not contain them; my intention being to pare the edges of the opening, and bring them together, as in the operation for hare-lip. The skin round the opening seemed to blend with the abdominal peritoneum, in a similar manner as the skin and mucous membrane of the mouth. The only thing I noticed during the labour, beyond its being tedious, was, upon withdrawing the hand after making a vaginal examination, it was covered with a yellowish brown secretion like bile. The cord was three times round the child's neck, drawing the umbilicus to the left; might this have any tendency to cause the opening, or was it merely arrest of development? The child was born alive, lived sixteen hours, during which time it cried lustily, and several times partook of a little gruel. I am sorry I was unable to obtain a post-mortem. The mother is at the present time doing remarkably well.

Linton, Cambs, February 12. Edgar Ireland, M.R.C.S.E.

COMMUNICATIONS have been received from—

Mr. J. Chatto; Dr. Barnes; Dr. Hughlings Jackson, Mr. Spencer Wells; Dr. R. Beveridge; Dr. R. E. Power, Mr. J. Bantle Langley; Mr. G. J. Adams; Dr. Brakenridge, Dr. Fairbank, F. G., Dr. Muspratt; Dr. Gervis; Dr. W. B. Herapath, Dr. Berkeley, G. L., Mr. W. Strange; Dr. Samuel Eadon; Mr. E. Crossman; Dr. Edmunds; L. M.; Dr. Charles Kidd, Mr. Le Noyl Fosser; Mr. E. Chaffan, Mr. Arthur Hills.

BOOKS RECEIVED—

Lewis's Catalogue—Dublin Quarterly Journal of Medical Science, No. 89—Combe on Diseases of Children—Pennsylvania Hospital Reports—Transactions of the Ethnological Society—Ipswich Museum Institution—Evans's History and Description of an Ambulance Waggon—Wilson's Practical Treatise on Surgical Apparatus—Hambrook Village Hospital Report—Canterbury Dispensary Report—British Journal of Dental Science, February—Dey on the Indigenous Drugs of India.

NEWSPAPERS RECEIVED—

Lincolnshire Chronicle—Belfast News-letter—The Age—Medical Press and Circular—Bristol Times and Mirror—Western Daily Press—Melbourne Argus—The Rock—Rochdale Observer.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 15, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Feb 15	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Feb. 15.	Temperature of Air (Fahr.). Highest during the Week.	Lowest during the Week.	Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2352	1441	1307	51·9	26·7	40·9	0·04	4
Bristol (City)	167487	35·7	111	75	†83	52·2	27·5	42·4	0·08	8
Birmingham (Boro')	356286	45·0	259	171	163	51·8	29·2	42·2	0·19	19
Liverpool (Borough)	500676	98·0	402	290	294	49·2	25·3	42·9	0·11	11
Manchester (City)	368835	81·8	276	208	†233	50·6	25·8	41·4	0·14	14
Salford (Borough)	117162	22·7	86	59	49	49·4	25·0	42·1	0·14	14
Sheffield (Borough)	232362	10·2	193	122	96	51·0	26·7	41·3	0·04	4
Bradford (Borough)	108019	16·4	97	55	55	..	..	..	..	..
Leeds (Borough)	236746	11·0	282	120	97	50·0	30·5	42·8	0·01	1
Hull (Borough)	108269	80·4	86	50	49	50·0	22·0	40·1	0·04	4
Newcstl-on-Tyne, do.	127701	23·9	121	68	55	50·0	29·0	42·2	0·04	4
Edinburgh (City)	177039	40·0	118	85	89	49·7	31·1	43·1	0·10	10
Glasgow (City)	449868	88·9	370	262	249	..	..	..	..	..
Dublin (City and some suburbs)	319985	32·8	157	*157	158	51·7	33·2	44·2	0·06	6
Total of 14 large Towns	6391080	34·7	4910	3163	2977	52·2	22·0	42·1	0·08	8
					Week ending Feb. 8.	Week ending Feb 8.				
Vienna (City)	(1863) 560000	..	..	..	378	..	..	41·5‡	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·215 in. The barometrical reading decreased from 30·40 in. on Sunday, February 9, to 29·92 in. on Saturday, February 15.

The general direction of the wind was W.S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 41·2.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 15, 1868.

BIRTHS.

Births of Boys, 1238; Girls, 1114; Total, 2352.
Average of 10 corresponding weeks, 1858-67, 2032·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	678	629	1307
Average of the ten years 1858-67	695·7	685·4	1381·1
Average corrected to increased population ..	..	..	1519
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	5	7	4	15	3	4	..
North ..	618,210	4	2	11	3	15	11	..	..
Central	378,058	6	4	5	1	6	4	2	..
East ..	571,158	6	5	8	..	8	11	2	..
South ..	773,175	10	3	5	2	17	7	2	1
Total ..	2,803,989	26	19	36	10	61	36	10	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·215 in.
Mean temperature	40·9
Highest point of thermometer	51·9
Lowest point of thermometer	26·7
Mean dew-point temperature	36·5
General direction of wind	W.S.W.
Whole amount of rain in the week	0·04

APPOINTMENTS FOR THE WEEK.

February 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

24. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1·30 p.m.

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

25. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Ethnological Society of London, 8 p.m. Dr. Hyde Clarke, "On the Varini of Tacitus." Mr. John Crawfurd, "On the Migration of Cultivated Plants yielding Narcotics, in reference to Ethnology."

Royal Institution, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

Royal Medical and Chirurgical Society, 8 p.m. Dr. Clifford Allbutt, "On the State of the Optic Nerves and Retinæ as seen in the Insane." Dr. Cockle and Mr. J. D. Hill, "Case of Arabian Elephantiasis treated by Compression of the Femoral Artery and Application of the Starched Bandage."

26. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2·30 p.m.

Hunterian Society (Council, 7½ p.m.), 8 p.m. Mr. Jonathan Hutchinson, "On General Pathology as Illustrated by Diseases of the Eye."

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. Meeting.

27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Royal Institution, 3 p.m. Professor Tyndall, "On the Discoveries of Faraday."

28. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Papers on "Rheumatic Arthritis;" "Fibroid Phthisis;" "Cancer of Œsophagus;" "Operation for Varicocele."

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Royal Institution, 8 p.m. Mr. A. Vernon Harcourt, "On Chemical Actions."

PARIS EXHIBITION, 1867.

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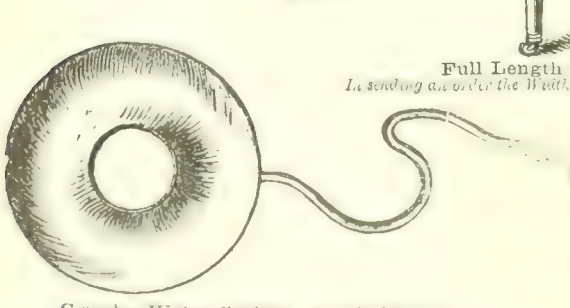

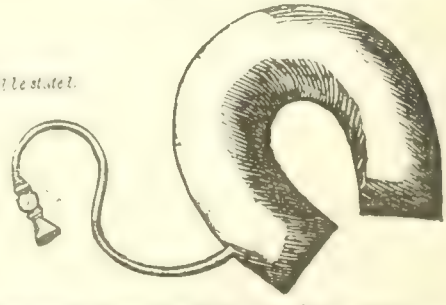

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ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

(*Continued from page 170.*)

You must remark that when the influence of the will is removed, owing to the connexion being severed between the brain and the parts to be acted upon, the paralysis is best observed when an effort is made to move any of the muscles, for then the contrast between the healthy and affected side becomes apparent. But it is not only when the will is in operation that the loss of power is seen; for at all times, and as soon as the paralysis has occurred, not only is the line of conduction broken, but a certain tonic influence is removed. This is well seen in the case of facial paralysis affecting one side, when the face falls and the opposite side is drawn up. This appearance is increased when any voluntary movement is attempted; but even at rest and in sleep the tonic contraction of the healthy side may be well contrasted with the relaxed condition of the other. If both facial nerves are affected, it is not only when the patient "wills" to move the muscles of the face that the paralysis becomes apparent, but at all times the face assumes a blank expression from the tonicity of the muscles having disappeared. In a practical lecture it would be out of place to enter fully into the various suppositions and theories propounded to account for this, but I might say that it is one of those questions in nerve and muscle physiology which have by no means been satisfactorily solved. Of course, one's first impression would be that a certain influence, allied, perhaps, to a galvanic force, was constantly passing down the nerve and preserving the tension of the muscle by keeping its elements together. Opposed, however, to such an idea there is the fact of the continuance of the irritability of muscle after the nerves which are distributed to it have been severed; in fact, even more than this, for it has been shown by Brown-Séquard that in a decapitated frog the muscular power has been increased, the spinal cord, however, remaining. Then, again, arguments have been taken from the independent contraction of muscle which occurs after death to show that the properties of muscle are inherent in itself. I cannot quite see the legitimacy of the last argument, for it surely must contain a fallacy when a condition of muscle which is regarded as one of the best evidences of death can be compared with its power of contractility, which is a sure sign of some remnant of life. A growing impression of late has been that all power resides in the muscle, and the influence conveyed by the nerve is only a regulating one. Like a steam engine or watch, the power is in the steam or the spring, and the levers do not impart force, but merely allow the pent-up forces to act. Still the fact remains, and to my mind not yet satisfactorily accounted for, why when a person is asleep his muscles relax, or why the same occurs when the nerve proceeding to the muscle is severed. The fact of wasting of muscle in spinal disease or after division of a nerve would be accounted for by a paresis of the blood-vessels. For the present, however, remember the important clinical fact of want of tonicity of muscle generally implying deficient nervous influence. Those who have much experience in mental disease at once recognise the general paralysis of the insane by the want of expression in the face.

In hemiplegia, owing to the paralysis of the face, there is for a short time an incapability of utterance. This soon passes off, and nothing but thickness of speech remains. This is true if the paralysis be on the left side; but in right hemiplegia, as I have already told you, there is utter loss of language, or "aphasia" as it is called. I have already gone fully into this matter, and have declared my belief in the educational theory first propounded by Dr. Moxon, it appearing to me as simple and satisfactory as any other theory in the whole domain of physiology. There can be no doubt of the actual fact of aphasia being mostly associated with hemiplegia on the right side, and not on the left. The proof of the correctness was at once made manifest by a reference to the reports of old cases, which of course were taken at the time without any knowledge of this remarkable fact, to be afterwards discovered. Amongst other cases, I might allude to that of the late Dr. Dalton, the propounder of the atomic theory, in whose biography you will read how he was struck with right side paralysis and loss of speech.

As loss of speech may depend on many causes, as on disease of the brain proper, or on a disturbance in the mechanism, as well as on a lesion in the corpus striatum or its neighbourhood, in which all memory of words is lost, it is advisable, in the first place, and before the form of affection can be discriminated, to adopt the term used by Dr. H. Jackson, "defect of expression." Those who have written on the subject have described different forms of aphasia. These I will not enter upon here, but my own opinion is that they may all be regarded as degrees of the same fault, and probably proportionate to the amount of disease present—as, for instance, when a patient forgets a word and recognises it when suggested is merely an approach to perfect aphasia. You will observe in glosso-laryngeal paralysis, where the muscles used in speaking will not act, that the patient makes a great effort to express himself; he speaks slowly, and the almost unintelligible words appear to proceed from him with the utmost difficulty. You will observe also, in partial paralysis of the facial muscles, how the patient speaks thickly like a drunken man, as seen in the general paralysis of the insane; but in aphasia the attempt at utterance is very different. The patient in his attempt to answer you when you put a question to him, having no words to make use of, sets up a meaningless gabble; his mouth and lips move quickly, but nothing else than noise results. Without looking at the patients belonging to these three classes, you would by their manner of speaking, or attempt at speaking, be able to recognise their form of malady.

I would ask you to remember that loss of speech is owing to the damage done to the corpus striatum or its surroundings, this being the region of the brain which had been educated to rule over the function of vocalisation, but that the apparatus for speech is still perfect. Thus, speech could be accomplished if the patient remembered how to use the instrument, and thus it happens that the patient is able to form words, although he may not understand their meaning, or, rather, the words expressed have no special meaning attached to them; they are, in fact, mere ejaculations or exclamations, as "Oh, dear me!" This is a part of the subject upon which Dr. H. Jackson has made some most interesting and valuable observations, and he was led to it by the fact of a patient in the next bed to a sufferer from aphasia informing the Doctor that he believed his neighbour was an impostor, for he had heard him swear. Upon this, Dr. Jackson showed convincingly that the mere exclamation, as in uttering an oath, is not using language as an intellectual operation in the manner already described, and as a system of signs corresponding to ideas, but a mere emotional action, and thus affords an additional proof that the organs of vocalisation are not at fault in aphasia. He further showed how his clinical observations corroborated the statements of Horne Tooke and other writers, that swearing is not an intellectual process, but exhibits merely a state of feeling. A man who swears much shows an exuberant amount of sentiment, but detracts so much from the real force of his language. Dr. Jackson relates the case of a man who attempted to write with his left hand, and, when given a slate and pencil, wrote all over the former the word "damn."

These observations tend to throw light upon those very painful cases which we sometimes have to witness where old and bed-ridden persons whose minds have gone to decay, and thus incapable of any mental effort, distress their friends by their repeated exclamations in oaths. Persons who have led the strictest and most pious lives, and who have never been heard to swear in the whole course of their existence, will now adopt the most horrible expressions. This simply means that the intellectual part of the nervous system has gone, while some of the emotional remains, and thus, without a thought, such expressions as "oh, dear!" "good God!" and so on in the category of oaths, until the foulest words may be used. I have seen an old man in this state who could use the most sanguinary and condemnatory expressions, but could not utter a syllable for any intellectual purpose.

ORIGINAL COMMUNICATIONS.

ON SOME ANOMALOUS CASES OF ACUTE PHTHISIS.

By SYDNEY RINGER, M.D.,
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While studying the alteration of the temperature in the different forms of phthisis, several anomalous cases came under our notice. These, though departing in many respects from the rules generally observed in phthisis, were like each other; and as we have careful notes of them we think them of sufficient value to be made the subject of a communication, the more so, as, from their unusual course and behaviour, the diagnosis was not always easy. We hope to show how the nature of such cases may be detected, and how important a part the temperature holds in the grounds forming the diagnosis.

In all the cases of which we shall first speak, the patients suffered from acute phthisis. The deposit was yellow tubercle, or, as it is now called, scrofulous pneumonia of the lung. This was either in the infiltrated or discrete form. Thus far these cases are in no way peculiar: their peculiarity consists in this—the deposit occurred first at the base of one or both lungs, and was always most abundant there, and was often almost entirely absent in the upper lobes, even so when the lower lobe was absolutely solid, or riddled with small abscesses, or converted into one large hollow.

In their course, they simulate, as regards their physical signs, various other diseases. The difficulty in the diagnosis is still further increased by the generally accepted doctrine that tubercle, whether grey or yellow (*i.e.*, scrofulous pneumonia), always invades first and most the upper part of the lungs. By the aid of the temperature, with the course the physical signs and symptoms run, we have been able to obtain a correct conclusion of the nature of the disease—a conclusion afterwards confirmed by the post-mortem examination.

We shall at first confine our attention to the physical signs met with, at different periods, in these cases. Some of the patients were first seen by us when the disease had well progressed; others were under our care from the very commencement, and were carefully watched throughout.

At one time of the disease the only physical sign present may be crepitation at either base, which often has all the characters of pneumonic crepitation in perfection; at other times it is a little larger; but, as every practical man knows, in pneumonia itself a very great difference is met with in the size of the crepitation.

At this stage it might be easily thought that the disease was genuine pneumonia. This error is the more probable, as the disease may begin acutely with high fever, stitch in the side, slight cough, and scanty tenacious expectoration, and this crepitation may be from the first present, and detected by auscultation. But even at this stage our suspicions will be aroused by various circumstances. Thus, generally there is but little weakness; that extreme prostration so common and characteristic in pneumonia is absent. The patient walks with tolerable ease into the room or moves without assistance in bed. Another circumstance which, in conjunction with others to be mentioned, will assist us in the solution of a difficulty similar to that under our consideration, is that the breathing is but little oppressed, and would not strike an observer as being in any way affected. It is, however, generally a little hurried. The expectoration is not rusty unless there has been decided hæmoptysis; but when such occurs, and for a few days after it has ceased, the expectoration may be rusty. The very fact of the hæmoptysis which preceded the rusty sputa would excite our apprehension, and would lead us to fear that the patient was consumptive. Yet with all these characters, apart from hæmoptysis, a positive conclusion cannot be formed. In a few days, however, the course the physical signs observe clears up all our difficulties, and confirms the suspicions of the case, and justifies the diagnosis of consumption. For while in simple pneumonia the few physical signs mentioned above are soon accompanied by some dulness on percussion, with alteration of the breath sound, and in a few more hours by absolute dulness with great increase of the vocal fremitus and tubular breathing, such is not the case with scrofulous pneumonia of one base. But instead of this, day after day passes, and yet the physical signs remain just as few and indeterminate; the crepitation continues, or even this may be heard abundantly one day but be unheard on the next, and again on the following one be as abundant as ever; sometimes a little dulness may be added to the crepitation, but this is usually slight. This almost stationary condition of the physical signs is always suspicious of scrofulous pneumonia, and the longer it continues the more characteristic does it become of the disease.

In some cases the paucity of the physical signs may continue for weeks with only a small amount of dulness added, and without any appreciable alteration in the characters of the breath sound. This long continuance of such physical signs is of itself quite sufficient to prove the disease before us is not simple pneumonia, and, added to the condition of the temperature, is amply sufficient in most, if not in all, cases to conduct us to a correct diagnosis.

Of œdema of the lung, which may be accompanied by fine crepitation at the base, it is hardly necessary to speak, as the general condition of the patient will generally decide whether such a state of lung is present or not

Then, again, pulmonary apoplexy, which is often seated at the base of the lungs, may be accompanied by crepitation like pneumonic crepitation. But then, again, the presence or absence of a disease sufficient to cause pulmonary apoplexy, with a general consideration of the symptoms and physical signs, will settle any doubts in our minds in such a case; and, again, in these two last-named diseases the temperature is natural, as far as a limited experience in this matter will allow me to speak.

In what way does the temperature comport itself in scrofulous pneumonia? Some of its characters are of greater importance than others. We shall speak first of those of lesser importance. The amount of elevation in scrofulous pneumonia is usually less than in simple pneumonia, generally not reaching higher than to 102° and 103° Fahr., while the temperature of simple pneumonia is often 104° and 105° Fahr.; yet this distinction is by no means a constant and hence important one. Another difference in the temperature of the two diseases is this: while in scrofulous pneumonia it often falls much in the morning, so that the diurnal variations are great, in simple pneumonia the elevation is maintained at much the same height throughout the day; but, again, too much stress must not be attached to this character of the temperature. The great point to look to is the time it remains elevated. In simple pneumonia the inflammation ceases at some time between the fifth and tenth day, and with this cessation the temperature falls and becomes natural. Should the temperature remain high for a longer period than this, then we are justified in the diagnosis of scrofulous pneumonia, if the physical signs given above are present. Thus, this combination of circumstances—namely, crepitation, fine or coarse, heard at the base, with an elevation lasting twelve or more days—is sufficient to lead to a correct diagnosis of scrofulous pneumonia, and every additional day of continuance of these circumstances confirms the conclusion.

We have said if crepitation be present; but it is not necessary to have the crepitation exactly like that often met with in pneumonia. Indeed, in most cases such a rhonchus is not present, but very generally one with many of its characters. Generally, in scrofulous pneumonia, it is a little larger, and often accompanies expiration as well as inspiration.

From this point the disease gradually increases, and with this increase the physical signs and symptoms alter, until another phase of the disease is presented—such a one as may come first under the notice of the Medical man—and then the diagnosis will have to be made on the strength of the signs of this new phase. This new condition of things thus comes about. After some days, or it may be weeks, dulness at the base occurs. This increases very slowly in extent and in intensity. At the same time, and *pari passu* with this increase of the dulness, the vocal fremitus becomes more marked, and the breathing blowing, metallic, and soon perfectly tubular.

Here, again, are circumstances sufficient at first sight to lead to the impression that the disease might be simple pneumonia of the second stage, as we have dulness at the base of one or both lungs, with increase of the vocal fremitus, with tubular breathing and fine true crepitation. Yet there are peculiarities in these characters which suffice often for a determination of the nature of the disease; for in most of these cases the crepitation is peculiar in this respect. As the physical signs deepen in intensity, this fine rhonchus continues, and is heard over the whole of the consolidated lung; on some days being small in quantity, or even absent for a short

time, and replaced by a larger rhonchus, but soon it again returns, and even when the physical signs have reached the intensity described above, this crepitation is heard over even the most dull parts. If we had watched a case thus slowly progressing, the task in diagnosis before us would be comparatively easy; but the case is otherwise when we are summoned to see a person for the first time with signs such as those described. The fact of the crepitation being heard over the whole of the consolidated part of the lung and not at its confines, its seat in simple pneumonia, would be a circumstance that should attract at once the attention of the observer and excite his suspicion of some other disease than simple pneumonia. Then, in such a case as we are now supposing, and I have in each instance quoted from notes taken at the bedside, the previous history of the patient would assist us very greatly, as, if the patient had been ill for some weeks or months, and we could connect his then physical signs with his previous illness, we should be convinced that simple pneumonia was not the disease he suffered from. But it is not always easy to decide such a question; and it may be he has suffered with some complaint which has been complicated with simple pneumonia. If such a doubt arise, a few days' observation will set the difficulty at rest, for the temperature will come to our assistance. On examination, if the case be one of scrofulous pneumonia, we find this to be 102 or 103 every evening, and to have all the characters witnessed in the first stage of the disease. Such an elevation, or one higher, would occur in simple pneumonia, but if the consolidation were due to the last-named disease, then we should expect the inflammation, and with it the temperature, to soon decline, and the last to become natural, as, if a stage of consolidation were reached, the disease must have lasted a little while and thus be near its termination. Now, if we find the temperature continue elevated day after day, we must conclude, with such physical signs, our patient is the subject of scrofulous pneumonia.

When this phase of the disease is reached, the physical signs characteristic of it continue week after week, even month to month, with scarcely any alteration, or with merely a very slow increase in their intensity and extent. The continuance for some time at the base of great dulness, increased vocal resonance, tubular breathing, and wide-spread crepitatation, with an elevation of the temperature to 102° and 103°, justifies a diagnosis of scrofulous pneumonia. The symptoms met with at this stage of the disease are not those of simple pneumonia; the weakness is less marked, and the breathing but little hurried, and the pulse respiration ratio much less disturbed. Often the patients can get about, and even do much of their work, while their breathing appears to be quite calm.

If life be continued long enough, the disease advances another step, and cavities are formed. Then to the tubular breathing, absolute dulness, diffused crepitation, there are added at places cavernous breathing and cavernous rhonchus, sometimes even amphoric note on percussion. This state of things may be present at the base while the upper part of the chest is free from unhealthy physical signs, and when, as the post-mortem shows, the upper part of the lung is nearly free from the deposition from the disease.

Here is a collection of physical signs which might suggest diagnosis of ulceration of the bronchial tubes at the base, leading to the production of cavities and to consolidation between the bronchi. Such a disease is occasionally met with. The latter may run a rapid or slow course. It is very generally a very chronic disease, and then does not produce any elevation of the temperature, or a very slight and very occasional one to 100° Fahr. This distinction between the two diseases was lately well shown in our wards, where we had a patient suffering from scrofulous pneumonia, and opposite to him another with this ulceration of the bronchial tubes. The diagnosis in both cases was confirmed by the post-mortem examination. In the case of scrofulous pneumonia, the temperature was very considerably elevated every day; while with the patient who suffered from ulceration of the bronchial tubes and the formation of cavities the temperature was almost always natural, and only occasionally rose to 100° Fahr. There are also usually marked differences in the physical signs of the two diseases, while also the expectoration in ulceration of the bronchial tubes of that kind of which we are speaking is generally different from that of scrofulous pneumonia.

Most of the cases on which our remarks are based were examined after death, and the state of the lungs carefully ascertained. It was then found that the lower part of the lung, often the whole lower lobe, with perhaps part of the upper, was completely consolidated, and presented the appearance of what was formerly called infiltrated yellow tubercle, but which has now received the name of scrofulous pneumonia. The whole or the lower part of the lower lobe was absolutely solid, or here and there were seen a few small spots of less affected or healthy lung. The consolidated tissue was quite airless; the section dry, of a straw or grey colour, mottled with spots and streaks of black pigment. It broke down with some ease, and the fracture was granular or cheesy. In some parts it was softer, more brittle, than at others, and had more the characters of ordinary pneumonic infiltration. These parts, the most recently affected, were more raised above the cut surface than the older deposits, and also were more granular, less opaque, and, as we have said, more brittle and more easily broken down. The older parts gave what has been termed the horse chestnut look and consistence.

The disease appeared to originate in two ways in a manner similar to that when the disease first affects the upper part of the lung. Sometimes small nodules, the size of pins' heads or peas, were formed, and by their increase in number the lung was gradually destroyed until, by their coalescence, large tracts of lung were consolidated. In other cases there were seen innumerable little straw-coloured spots, closely placed together, and looking as if isolated vesicles were filled with the diseased products. Each of these was separately affected, and those in their immediate neighbourhood were healthy to look at. These latter in their turn appeared to become affected, and thus extensive consolidation is attained. Where the consolidation is great and the deposit of some duration, it is tougher, smoother, denser, less granular, and more opaque than at those places where the deposit is of recent formation. These consolidated portions were sometimes riddled with small cavities formed apparently by the deliquescence of the diseased lung, for the cavities are then everywhere immediately bounded by consolidated lung, and not by a fibrous capsule. These cavities at the base may reach to the size of a large orange. The consolidation may be thus intense, and the excavation thus advanced, while the upper lobe may be almost free from the disease, and contain only a few scattered nodules of yellow tubercle. Sometimes the disease begins at one base, and then gradually invades the whole of that lung, and then attacks the other lung, setting first upon its apex, and involving this most extensively in the disease. At other times both bases are the first to be affected, and the disease is always most marked at these parts.

In these cases, it appears, we have yellow tubercle (scrofulous pneumonia) affecting primarily the base. Yet in these cases the physical signs and the morbid anatomy are somewhat different than when the disease is situated at the apex. Thus, the crepitation, its persistence and wide-spread character, so marked when the disease is at the base, is rarely met with in attacks which commence at the apex. The tubular breathing, again, which is so intense in the form of the disease of which we are writing, is absent where the disease fixes on the apex. This latter difference is well explained by the anatomy of the two forms. The consolidation is greater—that is, it is more general and more intense—where the base is primarily affected, and passes less slowly into excavation, than is the case with tubercle at the apex. In respect of the symptoms, they are the same whether the disease first seizes upon the apex or the base. Copious spitting of blood may be one of the earliest symptoms, perhaps the first to attract the patient's attention and to excite his fears. This may be often repeated. Where it occurs, the expectoration, for some days after it has ceased, may be rusty in colour, and this appearance of the phlegm may easily lend countenance to the idea of simple pneumonia being present. The cough is, very generally, very tearing and hacking, frequent, and sometimes paroxysmal. It is one of the most distressing of the symptoms, causing from its violence and hardness much pain to the patient. The expectoration is at first composed of a mucilaginous-looking fluid, a little opaque, rather tenacious, very little aerated, and looks not unlike rice-water, but is thicker. It is at first free from purulent-looking matter. As the disease increases, the mucus becomes mixed with yellow purulent-looking expectoration, which may be pretty equally mixed with the mucus, or take on the shape of pellets. After a time, mucus ceases to be present, and all that is brought up is purulent. These are the characters of the expectoration in the various stages of ordinary phthisis.

The course of the disease is somewhat variable; as with the disease when situated at the apex, its course is for the most part a downward one, and the disease almost always ends

in death. The temperature marks well these variations in the severity of the disease. In some cases throughout it is elevated, every day rising to 103° or 104° Fahr., while in the morning it often falls very considerably, even to the degree of health. In other cases, after an elevation of some weeks, a gradual fall occurs, and continues till the temperature of health is obtained, and continues at this for a very long time, with an occasional rise to 100° or 101° Fahr. After a course of this kind, it may again rise considerably, and remain elevated till the patient dies. In more favourable and in exceptional cases the temperature becomes natural, and remains so while the patient recovers strength. His symptoms disappear one by one till good health is restored. With each temporary lull in the course of the temperature there is generally witnessed a decided improvement in the condition of the patient. This is sometimes so marked as to raise hopes of a permanent recovery—hopes which our experience shows us to be in most cases deceptive.

Such is the course the temperature adopts in all forms of acute phthisis, and, in conclusion, I may state that a very extended experience enables me to affirm a statement put forward by me in a pamphlet some time ago—namely, that a disease of the lung causing a considerable elevation of temperature lasting many days—say ten to twenty, or more—is almost always due to the deposition of either grey or yellow tubercle. But one exception to this general statement has as yet occurred to me, and there the elevation was due to acute inflammatory ulceration of bronchial tubes at the base of both lungs, leading to rapid excavation of the organ.

ON DISINFECTANTS.

By WILLIAM PROCTER, M.D., F.C.S.

Amongst the most fertile causes of disease may be ranked the effluvia evolved from organic matter, especially that from the animal kingdom, in a state of decomposition. This fact is so generally admitted, that it seems needless to detail the accumulated proofs tending to show that cholera and other diseases of less virulency—as typhoid fever, etc.—have been directly traced to deteriorations of this kind, introduced into the system either from the atmosphere by respiration, or from other sources by way of the alimentary canal. If, as a fundamental fact, this is correct, the inquiry arises—Of what do these effluvia consist, and in what manner do they operate to produce their prejudicial influence? Notwithstanding the most refined researches which have been brought to bear on the subject in both physiological and chemical science, it must be admitted that, whilst much has been done, our knowledge is as yet limited in the matter and deficient in the special exactness which could be desired.

Dead organic matter passes rapidly into a state of change or decomposition, the nature of the resulting products being dependent upon numerous collateral circumstances. Amongst these changes putrefaction is specially distinguished by the fœtid character of the matter evolved. The more complex the composition of the bodies, the more unstable is their equilibrium, the more readily do their constituents enter into a state of change and the more offensive are the emanations. Even the final products of putrefaction (especially when air is excluded or imperfectly supplied) are of this character, comprising, as they do, sulphuretted hydrogen, sulphide of ammonium, phosphides, ammoniacal, and other like compounds. It would not seem that the ultimate products of putrefactive decomposition directly generate zymotic disease, although they may produce their individual special effects, but that indirectly they promote its invasion by the exclusion of pure air, by forming a nidus for the nourishment of morbific matter, and, by depressing the powers of the system, render the body more predisposed and less resisting, and cause a more rapid spread of specific disease. It is rather to some intermediate product of the putrefactive process, and especially to the organic effluvia still in a state of change, that the power of setting up zymosis is to be referred. But the resulting gases may themselves either destroy life rapidly by acute poisoning, with symptoms well recognised, or produce a certain class of endemic diseases not transmissible under ordinary circumstances. Dr. H. Barker has submitted this matter to the test of experiment by conducting the air of a cesspool, containing carbonic acid, sulphuretted hydrogen, and sulphide of [illegible] into a box in which animals were confined; the symptoms which resulted resembled the milder forms of continued fevers common to the dirty and ill-ventilated homes of the lower classes of the community, and Dr. Barker attributes the results not to the organic but to the gaseous matter. The effects of these gases were then tried separately on confined animals, and he found that of sulphuretted hydrogen 0·5 per 1000 may produce serious symptoms, and 4·2 per 1000 was rapidly fatal, but not with the symptoms or pathological conditions of cesspool fever, while, on the other hand, a volatile alkaline body, such as sulphide of ammonium, persistently administered, produced both the symptoms and pathology of fever. Dr. Dundas Thompson was one of the first to recognise the importance of organic matter as a constituent of the air of towns, and to enunciate the proposition that the gases evolved during putrefaction are not the main sources of danger. The existence of a large amount of foreign matter in the atmosphere has been satisfactorily demonstrated. If pure distilled water in an open vessel is exposed to the air, the loss from evaporation being made up by the addition of fresh liquid, on the careful microscopic examination of the sediment which is formed, monads, amœbæ, and other of the lowest forms of life, will be detected. Pasteur placed soluble gun-cotton in a glass tube, and by means of an aspirator caused a current of air to pass through it for several hours. The cotton being dissolved, and the residue examined, was found invariably to contain organic growths, and he proved that the air of inhabited places contains a greater relative number of germs than the air of uninhabited regions. Over the mouth of an impure cesspool a glass globe was placed filled with ice; on its surface the aqueous vapour, with its soluble suspended matter, was condensed. This liquid was turbid, had an offensive odour and alkaline reaction, and contained small flakes of matter which under the microscope had the appearance of organic *débris*, and with it there were vibriones monads, and other low forms of life, with confervoid and fungoid filaments. Somewhat similar results are obtained from the vapour condensed by placing a bell-jar over putrid meat. Experiment has shown that in such an impure atmosphere milk is rapidly changed, and meat speedily putrefies. It is eminently a suggestive fact that these germs are not everywhere present in all forms and equal numbers. They exist numerously in the lower strata of the air and in densely populated towns, becoming fewer as we rise higher, and at such elevations as the summit of the Alps they are almost absent.

These conditions, then, are general; but in certain localities special germs are detectible. M. Chalvet has collected putrescent organic matter from the walls of Hospital wards; and when watery vapour near a suppurating surface was collected, it was found to be charged with irregular corpuscles resembling dried pus. Eiselt, of Prague, found small cells like pus cells, in the air of a ward in which epidemic ophthalmia was raging.

These facts afford just reasons for concluding that the air is a medium through which diseases may be transmitted either by specific germs or by the presence of organic matter in a state of change which may set up certain so-called endemic diseases. In every instance of communicated morbid condition, there is a material cause, however subtle its nature and mode of transmission, which must be concerned in its propagation. The power to communicate certain diseases is a material substance, in all probability made up of solid non-volatile particles, certainly not gaseous. Probably, then, it is a germinal cell, of which vaccine lymph may be taken as the type, of peculiar organisation, capable of being transmitted from one locality to another, of preserving its vitality, for a time at least, outside the organism, and within of reproducing itself.

We can imagine two ways in which poisons may act on the system.

1. When virus is introduced into the system, it multiplies rapidly, and seems to have the power of transforming healthy matter into matter of its own nature, as small-pox. 2. By catalysis, a minute quantity of virus being sufficient to set up the septic changes in the blood to which it has gained access. Carefully conducted experiments by numerous observers have shown that the composition of the blood during disease undergoes alterations and variations. Purkinje says that the blood in cholera contains pure urea and an extractive substance by which the urea is rapidly converted into carb[illegible]. Diseases closely resembling those which occur naturally may be set up artificially, by introducing into the circulating fluid substances capable of acting catalytically.

Abscesses have been produced by injecting pus into the veins of dogs, septic affections by the injection of putrid purulent matter into the veins, and diseases with all the characters of typhoid fever, by the introduction of putrid blood into the circulation. It must be admitted that countless germs of vegetables, infusoria, etc., exist in the air, and grow and multiply whenever they find an appropriate nidus. This condition of the atmosphere has been called by Dr. Sanderson septic, and derives importance from the possibility of being concerned in the production of zymotic disease. That these low forms of life may seriously affect the blood of the higher order of animals, is clearly proved by the recent researches of Davaine, who has furnished the first well-established example of a disease of the blood due to the presence of inferior beings. A low form of bacteria was discovered in the blood of sheep suffering from splenic apoplexy, and considered by the observer to be the cause of that disease. Dr. Salisbury, of Ohio, states that the prevalence of measles in the Federal army arose from fungi (a Penicillum). He was led to this examination by observing that a large number of men rose one morning with symptoms of measles, after sleeping on straw which was mouldy, and had a peculiar odour, and that, by inoculation with this fungus, he set up in many persons, in from twenty-four to ninety-six hours, a disease closely resembling measles. It is nevertheless proper to state that these experiments have been repeated by Dr. Woodward, of the United States Army, and that he does not confirm them.

Strong evidence has lately been brought forward to show that fungoid vegetations, if not the cause, are intimately associated with malarial fever (*Medical Times and Gazette*, November 9, 1867). Although it is true, as remarked by Dr. Snow in speaking of his opinion that cholera is disseminated by an especial cell, "that it is no objection to this view that the structure of the cholera poison cannot be recognised by the microscope, for the matter of small-pox and chancre can only be recognised by their effects, and not by their physical properties," yet special poisons have in many cases been isolated. Dr. Richardson has separated the poison of pyæmia; it may, he says, be evaporated to the form of syrup or extract. It produces when dried a substance closely resembling the snake poison. It admits of being pulverised, and when it is introduced into the wound of a healthy animal produces precisely the same symptoms as those of the patient from which the poison was taken. Panum's experiments on putrid infection are of high interest, but he will not attempt to decide whether the putrid poison acts "directly on the nervous system, or as a ferment to the blood." All the phenomena of disease would indicate that blood-poisoning is the result, and, as Dr. Richardson says, "that each particle of any one of these poisons, brought into contact either with the blood of the living animal or with certain secretions of the living animal, possess the property of turning the albuminous part of that same blood or secretion into substance like itself." Dr. Halford made some experiments on the poison of the cobra. He states that when a person is actually bitten by that animal, molecules of living germinal matter are thrown into the blood, which speedily grow into cells and as rapidly multiply, so that in a few hours millions upon millions are produced. Do their numbers render the blood unfit to support life, or, with some analogy to a process of fermentation, do they impoverish the blood by growing at the expense of some element of it, and at the same time excrete a something, a poison to which the symptoms of the disease may be directly due?

If, then, it be true that the presence of organic matter or the products of its decomposition are important elements in the causation of disease, the question arises—Is it within our power to remove those causes or to diminish or prevent their injurious effects? The organic contaminations found in the atmosphere possess, for the most part, a more or less complex constitution analogous to that of organic matter in general, and, being of an oxidisable nature, are therefore extremely disposed to enter into combination with active oxygen, and form with that substance new arrangements with their elements, of a permanent character. And, again, from the little stability of composition of contagious poisons, evinced by the fact of their decomposition at about 212°, it appears that their constituents are weakly held together. Here, then, one method is opened to us by which their action may be limited, by rapidly hastening their decay by a process of oxidation; or, on the other hand, some substance may be employed which prevents the compound from changing its original composition. In this manner two classes of disinfectants are obtained:—

1. Oxidising disinfectants, which hasten the decomposition of the compound, and at the same time render the resulting products harmless by reducing them to their simplest forms.
2. Antiseptics or colytics, which place the matter in a state unfavourable for its destruction by oxidation or otherwise.

To the preceding classes another division may be practically added, to which the term fixative has been applied—such as Burnett's fluid, etc., which, entering into combination with the offensive volatile products, prevent the pollution of the air by their escape.

(*To be continued.*)

CASE OF POPLITEAL ANEURISM TREATED BY PRESSURE, COMBINED WITH ETHER SPRAY TO THE TUMOUR.

By HENRY HARRISON,
Assistant-Surgeon Royal Artillery.

Driver G. B., of the Royal Artillery, aged 27 years; nine years' service, all at home. His appearance is healthy, but his Medical history sheet shows that he has frequently been in Hospital, and has suffered from primary and secondary syphilis, and continued and intermittent fever. Was admitted on January 12, 1868, complaining of pain in his leg from the ham downwards, both back and front, and that he was sometimes obliged to cease from walking by a sudden pain in the left ham. On examination a tumour as large as a small orange was found in the popliteal space, with the characteristic pulsation of aneurism; a slight bruit audible; pressure of the femoral artery in any part of its course, so as to stop the passage of blood through it, caused the pulsation to cease, as also did extreme flexion of the leg upon the thigh. He says that during the latter part of the drill season of 1867, when riding a rough horse, he felt something give way in his ham, and that it has gradually got into the state above described. Dr. Dempster, Tipperary Militia Artillery, and Mr. Tyner, of the Clonmel Lunatic Asylum, having seen the case, considered with myself that it was a good one for pressure, and an instrument (Reid's compressor) was applied for from Dublin.

The compressor, a stiff one, was applied on January 19, about four inches below Poupart's ligament, the part having been shaved previously; it was commenced at 10 a.m., but could not be borne by the patient, and was taken off at 11.15 a.m., and replaced by the manual pressure of three intelligent gunners; the pressure was well kept up so as to stop all pulsation in the tumour, and at the suggestion of Mr. Tyner a jet of ether spray was directed against it for about twenty minutes at 3 p.m. The tumour became solid during its use, and did not pulsate on removing the pressure. The pressure, however, was continued. At 6 p.m. and 9 p.m. it was found that there was pulsation, but much feebler. The same existed next morning. At 3 p.m. on January 20 digital pressure was discontinued. The effect of the application of the spray together with the pressure was evident twenty minutes after its use, the tumour being solidified. The tumour remained for some days more solid and with feebler pulsation in it than before the treatment was commenced, but gradually returned to its former condition.

A supply of ether and Read's most recent compressor had in the meantime been written for to Dublin. The instrument was applied at 3 p.m. on January 29, compressing the artery just above Poupart's ligament, and alternated carefully with the stiff instrument before in use, and the ether spray sufficient to freeze the surface of the tumour every half-hour. There was not the slightest pulsation on removing the pressure at 4 p.m.; it was kept up for twenty-six hours—viz., until 6 p.m. on the 30th—no pulsation having been detected for twenty-five hours. There was no distress or constitutional disturbance, and the tumour was hard and small like a racket ball and without pulsation. He was directed to maintain the limb in a semi-flexed position for some days, and to keep as quiet as possible. On examining the case on February 15, Mr. Tyner and myself considered that the aneurism has been completely cured and the collateral circulation effected. The limb is in every respect equal to the other, and the tumour has been reduced from the size of a small orange to that of a walnut, and is quite hard, so that the case may be looked upon as successful.

A great measure of the rapid solidification of the aneurism may fairly be attributed to the application of the ether spray,

as it occurred equally quickly on both occasions when it was used. Its success on the last attempt was due to its being combined with the very excellent pressure of Mr. Read's new instrument.

Clonmel.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

NOTES ON THE TREATMENT OF SKIN DISEASES.

(Cases under the care of Dr. HILTON FAGGE.)

The following notes refer mainly to the treatment of cutaneous affections, as illustrated by cases recently under observation at Guy's Hospital. The remarks have been furnished to us by Dr. Hilton Fagge, who gives the demonstrations on cutaneous diseases at that Medical school. The space at our disposal is so small that the observations are necessarily rather fragmentary.

For psoriasis (including under that term the lepra of Willan) the treatment usually adopted consists in the administration of Fowler's solution internally, and the application of tar ointment externally. In some cases, however, Fowler's solution disagrees. A remarkable instance of this occurred about a year since in a woman who had been under the care of Dr. Wilks while he had charge of the Skin Department. The liquor arsenicalis had been prescribed by Dr. Wilks, but could not be continued. When the patient came under Dr. Fagge's care, he made trial of the same remedy, but it produced disagreeable effects, so that the woman was unable to take it; he therefore ordered in its place the liquor sodæ arseniatis, which was borne without inconvenience, and cured the disease with remarkable rapidity.

During the past summer, there was in the clinical ward, under the care of Dr. Fagge, a case of psoriasis which was of rather unusual severity, and in which a cure took place under very remarkable conditions.

[From the report of Mr. Cole.]

E. P., aged 20, admitted April 9, 1867. He had had the same disease a year before on his chest and arms. He had been under Dr. Fagge's care as an out-patient since the end of January. At first the disease presented the characters of a psoriasis guttata. He was ordered to take the liquor arsenicalis in doses of three minims, and afterwards of five minims, three times daily, and subsequently to apply the ung. picis liquidæ. He did not, however, improve; on the contrary, the disease became worse and worse, the patches coalesced together, and on his admission he was covered nearly from head to foot, except that his face was free. On the chest, the eruption had assumed a well-marked circinated form.

When he first came into the clinical ward, he was ordered to take mist. quiniæ internally, and to apply tar ointment to one arm, and an ointment of ol. cadinum (℥j.—℥j. of lard) to the other arm. The tar ointment seemed to be doing the more good of the two, when, on May 2, he became feverish and ill, and a rash appeared consisting of rose-red maculæ, having defined edges, but running together, so as to cover a large part of the skin between the patches of the previous disease. Two days later the hands and feet presented numerous vesicles, containing a sero-purulent fluid. On the 7th the skin began to desquamate, and from the hands and feet the cuticle peeled off in large plates, exactly as after scarlatina. The scales also fell from the patches of psoriasis, leaving them free for the time; but this effect was very transient, for, by May 9, the disease had resumed its original appearance.

During this attack the treatment of the psoriasis was suspended; but on the 13th the liquor arsenicalis was ordered, three minims of it being combined with the vinum antimoniale in doses of seven minims, and on the 18th he was ordered to take the liq. sodæ arseniatis in doses of eight minims, the vinum antimoniale being still continued.

On May 20 [illegible] treatment was recommenced. He was placed, naked, in a blanket, and was well rubbed every night with pure tar. He quickly began to improve, the scales coming off and fresh ones ceasing to be formed. On the 25th the dose of the liq. sodæ arseniatis was increased to twelve minims, and the vin. antimoniale was omitted. After a time, the application of the tar caused him extreme pain, and on June 3, at his urgent request, the ung. picis liquidæ was substituted for it. A few fresh scales were still forming on the arms.

On June 13 it is noted that a large part of the cutaneous surface has now resumed its natural aspect. No new spots have appeared for some time, and the old ones are greatly reduced in size. The medicine has been regularly persevered with, but he has occasionally complained of slight sickness, which he attributed to it. Early one morning, when he was suffering in this way from sickness, his face became very much swollen, so that, to use his own words (which were confirmed by the nurse), "he could scarcely see out of his eyes." This, however, quickly subsided.

On June 17, the disease broke out afresh on the shoulders, and afterwards on the chest; and by the 20th it was nearly as bad as ever. On the 24th it appeared on the face, which had hitherto been free from it. The dose of the liq. sodæ arseniat. was now increased to ♏xv., and was given in water with tinct. gentianæ co. ʒss. t. d. The ung. picis liquidæ was ordered to be still applied to the body, but the face was treated with the ung. creasoti.

On June 27, the face having very quickly been freed of the eruption, the ung. creasoti was ordered to be applied to the body generally. The medicine was continued in doses of ♏xv. in decoct. sarzæ instead of water. At this time a large part of the cutaneous surface was healthy, being quite free from pigmentary stains; but there were yet numerous patches of a raw ham colour, to which a few scales still adhered.

On the morning of July 3, shortly after midnight, he felt very ill, and towards morning an exanthematous rash broke out all over his body. His face, eyes, lips, and hands became swollen, and the palms of the hands and soles of the feet became both hot and painful. The rash consisted of fine punctated maculæ, and was more like scarlatina than any of the other exanthemata. On the following day numerous white vesicles appeared on the backs of the hands, resembling those observed in the former attack, but not so large.

When this exanthem appeared, the previous treatment was suspended, and the mist. effervescens was ordered to be given every four hours. The rash was followed by desquamation, the cuticle of the hands and feet peeling off in large plates exactly as they had done before. On July 8 he was well enough to take mist. quin. t. d., and the ung. creasoti was resumed.

On the 11th, however, he again became very feverish. No rash appeared; but it was thought better to return to the mist. effervescens, to which vini antimonialis ♏v. were now added. The ung. creasoti was now discontinued, and he was ordered to rub olive oil all over him, with the object of rendering the skin softer and more pliable.

Under this simple treatment, the appearance of the skin gradually improved, and the olive oil was therefore persevered with. By July 27 the body was much cleaner, and no fresh scales were being formed. The back, however, was still covered with them. The olive oil was directed to be rubbed over the whole body twice daily.

On August 3 it is noted that the skin was still very red, the arms and forearms being, however, less so than the back and lower limbs. No raised patches of psoriasis were to be seen; but the redness formed zigzags and patterns, indicating the former seats of the disease. On the back thin scales still formed, and peeled off of their own accord.

He continued to improve, and finally left the Hospital. Dr. Fagge heard about a month since that he had had no return of the disease.

The cause and nature of the exanthematous rashes which appeared in this case on two successive occasions, remained unexplained. He was using the ung. creasoti each time before the exanthem appeared, and it is possible that it may have been this which gave rise to the exanthem. It is well known that copaiba and cubebs produce such rashes. Quite recently, a rash resembling scarlatina appeared in a patient whose leg had been amputated by Mr. Bryant. Carbolic acid was being applied to the wound, and it is not impossible that this may have had something to do with the causation of the exanthem. Scarlatina-like rashes, however, are frequently occurring in the Surgical wards after operations, independently of the use of any tarry substance. One of the most recent examples of this was in a child in whom such a rash appeared after lithotomy. This boy was moved down into the clinical ward under Dr. Fagge's care. The rash quickly disappeared, without

any evidence arising in proof of its being scarlatina. It has long been the opinion of Mr. Stocker and others that in these cases the rash is in some way caused by the irritation from the Surgical operation.

At the same time that the patients above referred to were in the clinical ward, there was a child in the same ward who presented a remarkable modification of psoriasis, in which the masses of scales were heaped together so as to resemble the crusts produced by a pustular disease. To this variety the name of *psoriasis rupioides* has been given by Dr. M'Call Anderson. It had long since been observed by Dr. Addison, and five models are now in the Guy's Museum, which are most perfect illustrations of it. This form of psoriasis does not appear to be more intractable than the ordinary varieties. In the child under Dr. Fagge's care arsenic was given, and after a week or two tar-ointment was applied. The "crusts," having once been removed by the ointment, were not again formed. There was no itching whatever in this case, so that the child was not impelled to scratch herself and tear off the scales before they had time to accumulate into "crusts." A detailed account of this case is given in the recent volume of the *Guy's Hospital Reports*.

(*To be continued.*)

THE LONDON HOSPITAL.

CASE OF OCCASIONAL LOSS OF CONSCIOUSNESS, WITH SUBJECTIVE SENSATIONS OF SMELL.

(Under the care of Dr. HUGHLINGS JACKSON.)

To learn the first symptom of convulsive or other occasional and temporary affections of the nervous system is to learn one of the most important facts in a case. It is presumable that this kind of study will help us to get to know the seat of the internal changes on which the symptoms of the paroxysm depend. Dr. Hughlings Jackson thinks the slight seizures mentioned in the following case depend on changes in the region of the anterior cerebral artery. This vessel supplies the olfactory bulb and a great range of convolutions. The two severe seizures are not so easily explained. We may suppose that in these parts in other arterial regions were involved. Dr. Hughlings Jackson referred to a lecture delivered by Mr. Paget, in which were related the cases of two old men who had the curious subjective sensations and loss of consciousness, but each symptom at different times; there was no mental failure. (See Catalogue of the Royal College of Surgeons, Nos. 2128 and 2129.) The reader will find further cases and remarks by Dr. Hughlings Jackson on subjective sensations of smell in *Medical Times and Gazette*, August 13, 1864, p. 168; *Lancet*, June 16, 1866; and *Ophthal Hosp. Rep.*, vol. v. part iv. p. 295 and p. 304; see Baker's edition of Kirkes's "Physiology," p. 597; Griesinger on "Mental Diseases" (Syd. Soc. edition), p. 100; Forbes Winslow "On Obscure Diseases of the Brain and Mind."

A man, 38 years of age, admitted February 10, had had two severe fits, the first in July, 1867. For six months previous he had been subject to occasional sensations of a "queer" smell. The first severe seizure happened in bed, and appears to have been a convulsion; he bit his tongue, and also the inside of his mouth. Then, after coming round, he had the same day very many slight seizures; whilst sitting he would say—"What a curious smell!" and then go off quite unconscious. His lips turned blue, and next quite white. He has since been subject to these slight seizures—sometimes one a day, two a day, or one a week—and in September had a second severe fit. It seems clear that in the two severe seizures only has there been any obvious convulsion. If the slight attack takes him when out walking, he does not fall, although he becomes insensible. "He looks about wild" When he comes round he does not know his wife or children, nor where he is. He says that sometimes these slight attacks do not last more than half a minute; his wife says never more than five minutes. It appears that the sensation begins suddenly, and is not present in the intervals of the seizures. He can still smell peppermint. In most cases where there is this subjective sensation power of smell is lost.

His memory has failed very much indeed lately, and of this he and his wife complain greatly. If any one pays him money he does not remember it, and it is necessary to send some one with him when he goes to business, to look after his purchases. In spite of this he seems to be intelligent, and differs in his talk, appearance, and manner from epileptics who seem more mentally impaired, although they complain less of mental defect.

There is a clear history of a severe blow received two years ago against the upper part of the forehead. It stunned him for a few minutes, but he went on to the market.

The optic discs are normal. He has no pain in the head; he sleeps badly.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 29, 1868.

OUR MEDICAL SOCIETIES.

At the anniversary meeting of the Hunterian Society, held on the 12th inst., the orator for the year, Dr. Braxton Hicks, took for the texts, so to speak, of his eloquent discourse Medical meetings, and the hindrances to the progress of Medical science; and his observations on these subjects have a special interest for us, because they have often occupied our own thoughts, though we have not looked at them from the same point of view as Dr. Hicks. We are not prepared to suggest seriously, far less to affirm, that the meetings of our Medical societies, and obstacles to Medical progress are convertible terms, or even that they are closely allied, save in the sense and degree in which waste of power may fairly be termed an obstacle to progress; but we must confess to some misgivings as to the real and tangible benefit accruing to our science and art from the numerous and multiplying Medical societies of the metropolis.

We have the Royal Medical and Chirurgical Society, the Pathological, Epidemiological, and Obstetrical Societies, the Medical Society of London, and the Hunterian and the Harveian Societies, besides those for promoting the advancement and cultivation of sciences allied, more or less closely, to Medicine, as the Chemical, the Pharmaceutical, the Linnean, the Microscopical, and the Anthropological Societies, and so forth. And the cry is still they come, the last year having added to the list the Clinical Society, the South London Medico-Chirurgical Society, and the St. Andrews Medical Graduates' Association.

We venture to think that it would be well to inquire seriously whether these numerous societies, with their almost innumerable meetings, do really effect much for the advancement of Medical knowledge and truth, and whether they could not, and should not looking at their cost in time and labour, do much more, and more real and solid, good work. We may acknowledge that these questions have been forced upon us primarily, and with no slight urgency and severity, in our capacity of journalists; for if the proceedings of all these societies are of real and great value to Medical progress, ought they not to be reported regularly, fully, and without delay? Yet to do this would absorb by far the largest half

of our pages week after week for six months of each year; while, on the other hand, if they are not of real and lasting importance, we already give up too much space to them. How should we, in the interests of the Profession, best deal with them? This question can only be answered by considering what is the use and value of our Medical societies; and here again another question presents itself, for before attempting to determine what good they do, it may be fairly asked, what are they meant to do? Are they established for the thorough examination and discussion of all newly propounded theories and experiments, and all newly announced discoveries and "facts" in physiology, pathology, and therapeutics, and for gathering up, sifting, and building into the temple of knowledge all the observations and experiences of practice which might otherwise, in the strife and bustle of life, go unrecorded, and be lost to science? Or are they meant only to be Medical *réunions*, where the last new thing may be heard and talked about, and notes of, and ideas on, practice be pleasantly interchanged—mere *quasi* scientific *causeries?* If they were meant to be the latter, it would of course be absurd and unjust to find fault with them for not being the former—as much so as it would be to denounce working men's institutes for not doing the work of the Royal Society, or debating clubs because their proceedings do not display the talent, eloquence, logical force, learning, and knowledge of statesmanship of a field-day in St. Stephen's, or Convocation because it does not at once settle and determine all disputed points in theology and in ecclesiastical discipline.

Now, the various Medical Societies we have mentioned undoubtedly start with programmes, or platforms, of various degrees of ambition and pretension, but we do not suppose that any one of them would accept the second and lower *rôle* we have above described; each one asserts that at the least one of its purposes is "the advancement of Medical science." In what degree can it be truly said that they do contribute to that advancement? Far be it from us to doubt that they contribute somewhat; but is the success of this kind at all proportionate to the cost? For be it remembered that their cost in money, time, and labour is something very considerable. It is common to hear complaints of the scanty attendance at societies which show a large roll-call of Fellows; but the tax which regular attendance at the meetings imposes on the few leisure hours of Medical men is so serious, that it demands some very positive return, in benefit to be gained by it. Now, we are inclined to question whether the societies that do the most good do not owe their success to their *Transactions* rather than to their meetings. The Medico-Chirurgical Society gives us yearly a valuable volume of *Transactions*, containing most able and sometimes exhaustive papers, with, once or twice, highly useful and instructive reports by committees; but no full or lengthy paper is read at its meetings except under the form of a dry, almost repulsive abstract; and who—now-a-days, at least—ever hears a thoroughly good and full or at all exhaustive discussion there? What, then, would be gained by attendance at the meetings? And the same may be said, with more or less exactness of application, of the meetings of most of the societies. The Pathological Society, indeed, is exceptionally happy in this: that the subjects described are present, and can be seen and handled—too often, alas! can be smelt also—and there is thus a distinct and great gain from attendance, however slight the discussions may be, and as a consequence the meetings of this Society are crowded, and its work is admitted to be of great value. But at other societies papers are read which are short, and of value only, or chiefly, as isolated contributions, which may be useful in future combinations, or, if full, are hurriedly and imperfectly read. And what can be said of the discussions in general? Is a really searching, critical discussion ever heard? Is a subject ever thoroughly examined and exhausted? Half an hour's more or less discursive talk is, we suspect, the rule; a genuine debate is rare, while an adjourned debate—*i.e.*, a debate of more than an hour—on any paper, however valuable, is almost unheard of. Papers and topics follow each other in orderly disorder, without any connexion or relationship save of successiveness and irrelevancy; and is there not consequently a most sad waste of literary power, of observation, and of labour? Papers on similar or closely allied topics lie scattered here and there, far and wide, which, if brought together, sifted, and discussed together or in immediate succession, might yield real and valuable results. Might not some efforts be made to combine labourers more—to take up subjects and work them out, so as to mark where our present real knowledge ends, and in what direction and in what way future labourers may work most hopefully?

We do not implicitly believe that they manage everything better in France, but perhaps we might advantageously borrow a little from the mode in which our brethren there manage their societies and conduct their discussions. Is a combination of our societies into an Academy of Medicine really impossible? We know efforts have been made in this direction and have failed; but we are most unwilling to think it quite hopeless, for we believe that only by some such arrangement can the greatest good be got out of the vast amount of force existing in our various societies. Suppose it possible to so combine and order all their working powers that separate diseases or classes of disease should be simultaneously or consecutively considered by physiological, pathological, microscopical, and therapeutical sections of one co-operative college or academy, and the results all focussed for final review and discussion, might not great and solid and lasting progress be confidently looked for?

It hardly seems going too far, indeed, to assert that such a scheme of combined labour, if fairly well managed, could not fail to insure a constant and steadfast advancement in knowledge and truth. Is there in reality, then, anything to make it hopelessly utopian? We cannot think so. Good, able, persevering, and even enthusiastic workers we have among us in plenty, and in the belief that at present their labour is, in no inconsiderable degree, frittered away and wasted, and the hope of perhaps inciting to an effort after concentration and more effective toil, we have thus shortly called attention to the subject.

MATERNAL CUSTOMS IN FRANCE.

That state of society must be essentially a vicious one in which the cares and responsibilities of maternity are looked upon as an unpleasant burden, to be shifted off, if possible, upon the shoulders of a mercenary hireling, instead of being regarded as a joyful and pleasurable occupation which ought to constitute the crowning happiness of a virtuous mother. But where a false civilisation makes the successful cultivation of fortune or pleasure the chief aim of life, we need not be surprised to find mothers sacrificing the health and even the lives of their offspring to their own vanity, ease, and selfishness.

The operations of a Society founded in Paris in the year 1865, and entitled "La Société Protectrice de l'Enfance," have exhibited an amount of heartless indifference and carelessness of human life in the arrangements made for the disposition of new-born children in that city, which, if we had not such an authoritative guarantee for their truthfulness, would appear positively incredible. It is, indeed, a sad reflection on our modern society, to think that in a capital like Paris—the very home, in our days, of art and science, of music, sculpture, and painting, and of all the luxuries and élegances of civilised life, where everything is arranged to gratify the eye and please the senses—we may yet see a greater regardlessness of human life and the commonest duties of humanity than has ever been shown by the most barbarous races of the world.

It appears that in Paris by far the greater number of new-

born children are deprived from the moment of their birth, by their cruel or careless mothers, of that nourishment which nature has provided for them. A number of reasons, or rather excuses—for excuses only can they be called—are put forward to account for this. In the first place, it is said that rents in Paris are so excessively high that the poor people are obliged to put up with apartments which are too small to admit of their lodging a numerous family, and that the women of the lower classes are compelled to engage in labours which would interfere with the fulfilment of the maternal duties. In the second place, it is stated that amongst the commercial classes the wives have to assist their husbands in their shops and offices, and that if they were to devote themselves to the care of their infants they would be distracted from their "*graver*" occupations—as if any occupation could be of higher importance than that of caring for their own offspring. Thirdly, amongst the higher classes it is pretended that many are rendered unfit for the maternal functions by feebleness of constitution, while it is admitted that the majority prefer the pleasures of fashionable life to the welfare of their progeny. It requires no examination to show these are for the most part the excuses of a wilful, heartless selfishness.

What, then, becomes of these poor little helpless beings—outcasts from the very moment of their birth from parents, family, and home? Very many of them are handed over to the care of coarse peasant women living in obscure hamlets in distant provinces. It appears that of 53,335 infants born annually in Paris 17,928 are sent out to nurse into the departments. Of these, 5916 are put out by the administration; this number includes the *enfants trouvés*. The remaining 12,012 are disposed of through the medium of agency offices and by the parents directly. But we are assured that very many children die during the first few days of their existence from sheer inanition, in the interval from birth to the period when they reach the nurse, for want of their mothers' or nurses' milk.

But the mothers themselves have not even the poor satisfaction of confiding their children directly to the arms of the nurses. There is yet a third party essential to this baby martyrdom. Intermediate between the parents and the nurses there appears to be a set of women termed "*meneuses*," who devote themselves to this *trade*. These women arrive in Paris, collect the new born infants from their mothers, who shed a few sentimental tears on parting with their little ones (*sentiment* being a strong point with the Parisians, since it is *effective* and *costs* nothing), and carry their precious burdens off with them into the provinces to be distributed amongst such nurses as they can find. It has further been shown by certain revelations before the tribunals of Paris, that some of these women convey these infants to *their own* homes, and there keep them for days, feeding them with food utterly unfit to sustain the life of these delicate creatures, till they can find nurses at a sufficiently low rate to allow of their making a handsome profit out of the transaction. It is not then to be wondered at that many succumb at a very early age to this kind of treatment, and that amongst those children who survive many are afflicted with chronic diseases of the digestive organs, brought on by the desertion of their mothers, by want of care in early infancy, and by improper food. Or at this early period of life the germs of constitutional maladies are sown which cause the unhappy little victims to lead a miserable and painful existence even to the end of their days. For when the constitution is attacked in the earliest age, and the blood tainted by certain infections which are unhappily too common, the evil done is irreparable, and a healthy condition can never be again established. The mortality amongst children put out to nurse in certain departments of France is alarmingly high, evidencing the most reprehensible carelessness and indifference amongst the nurses. In the Department of the Loire Inférieure it has reached 90 per cent., that of the Seine Inférieure 87, Eure 78, Calvados 78, Aube 70, Seine et Oise 69.

It has been suggested that many of the children are poisoned by *lactate of lead*—the vessel, or "biberon," from which the babies are fed being fabricated of tin and lead, and as the milk is often kept in it for days, it is thought that the lactic acid formed from the milk acts on the lead of the vessel, and dissolves a portion of it.

There is yet another consideration which arises out of this method of disposing of newly born infants, and this is one of identity. What guarantee have the parents that the children returned to them are identical with those they parted with some year or two before? A number of young babies are huddled off together into the country—possibly in the same crowded railway carriage—and distributed indifferently to various nurses, often plundered in the process of transference of their new linen, and old substituted. It is not difficult to imagine that a confused mixture of babies may be the result, and that exchanges, not always of a nature calculated to be gratifying to parents, are effected. There is no doubt that this has occasionally happened, and that children have been brought back to their parents whom the parents have not been able to recognise. What great amount of affection can there be between a savage, coarsely bred child, brought back to its parents, kicking and screaming for its nurse, and the parents themselves, who, if they had met the child by chance, would not have been able to distinguish it from another? And yet this is the kind of training to which parents voluntarily expose their offspring, instead of bringing them up under the healthy, happy influences of home and of a mother's direct and tender care.

But this avoidance of the cares of maternity by the Parisian mothers is productive of other evils. There are establishments in Paris in which countrywomen are received and lodged, and who suckle children on the spot without taking them away into the provinces: these are called "nourrices sur lieux." This demand for "nourrices sur lieux" in Paris brings away young mothers from their children and homes in the country, and it is asserted that this emigration does much to demoralise the rural districts. Homes are deserted, husbands become debauched, and children are abandoned to a vagabond life while the wife and mother is away in Paris caring for a stranger's offspring. The nurses themselves, when they return to their homes, bring back with them the vices of civilisation and tastes little compatible with a return to their original mode of life. The attractions which a Parisian life has for these women often causes them to neglect children whom they have undertaken to nurse in the country. A sad tale is told to this effect in one of the reports of the Society we have already alluded to. A poor girl, who worked hard and consecrated all her earnings to the maintenance of her child, had placed it out to nurse in a village in the department of the Nièvre. The nurse had confided the infant to her aged mother, who was bringing it up by hand, although only two months old, and, without giving any warning to the mother of the child, started for Paris in order to obtain employment as a "nourrice sur lieux." The unhappy mother hearing from the Medical inspector appointed by the Society in that district of what had happened, made every effort to obtain another nurse, but it was too late. No one would take charge of the wretched cadaverous infant that was presented to them, and the poor little creature died, a victim to the most unqualified felony. When the nurse to whom the child had been in the first place confined was sought out in Paris and remonstrated with for the infamy of her conduct, she coolly replied that "*in her neighbourhood these things happened every day.*"

Heartless desertion on the part of parents is also not unknown. The monthly payments to the nurses are made once or twice, and then the child appears to be forgotten by

its parents, and is left to be a burden to those poor people who are scarcely able to maintain their own families.

From the statements we have already made, it will be seen that the majority of infants born in Paris and other large towns in France have to undergo, indeed, a veritable struggle for existence, in which very many succumb; and it is not to be wondered at that with this fearful infantile mortality, and with the decreasing fruitfulness of marriages, some fears should be entertained for the due maintenance of the rate of increase of the population in that country. It has been shown by statistics that have recently been collected that while in Great Britain the population is doubled in 52 years, in France it takes 198 to produce the same increase. With the exception of Austria, this appears to be the lowest rate of any country in Europe.

We have felt it our duty to call attention to this growing tendency on the part of the mothers of the present day to avoid the duty of suckling their offspring, because we believe that it is a custom which attacks the well-being of society at its very foundations, and that it is fraught with the most perilous consequences to the future healthiness and hardiness of our race. We also believe that the members of our own Profession may do much towards checking this tendency by pointing out fearlessly and firmly all those evils which most certainly attend it. We should point out to husbands that if they would have virtuous wives and happy homes they should be careful how they sanction the withdrawal of the mother from that gentle, purifying, ennobling influence which maternal duties exercise over her character. And what wife is there who can receive the innocent caresses of her sucking infant and watch the first smiles which play over its baby features, the first indication of a dawning intelligence, without becoming a better woman and without feeling that she is receiving a rich recompense for all her cares and anxieties? For our own part, we have no hesitation in expressing an opinion to the effect that the woman who, unless for very feasible reasons, refuses to nourish her own offspring, is entirely unfit to become a wife or a mother.

The vice which we have been dealing with in this article, and which has grown to gigantic dimensions in the most highly civilised capital of Europe, appears, we regret to say to be making some progress amongst ourselves, as well as some other demoralising importations from that corrupt city. Let us take warning in time. It is occasionally an instructive, though painful, duty to scratch away the mere superficial polish of our modern civilisation, and regard closely in its unattractive nakedness the life which it conceals. All that appears on the surface may seem smooth, pleasant, and captivating, but penetrate a little deeper, and how vicious, how hideously selfish it is all found in reality to be. It is one, perhaps, of the misfortunes which belong to our calling as Medical men, that we have to disregard appearances and look for realities. We are often compelled to see more of the dark than of the bright side of life. We are constantly brought face to face with the gravest infirmities, the worst weaknesses, and the most terrible vices of human nature. Such of them as have only a personal interest pass at once into a sacred oblivion; but there are others which have a general and public interest, and to these it is our duty to call general and public attention.

THE WEEK.

TOPICS OF THE DAY.

The chances of the Profession obtaining from Parliament this session an Act to supply the deficiencies of the Act of 1858 are, we hope, improving. We are enabled to state that the President of the General Medical Council has had an interview with the Secretary of State for the Home Department on the subject, and that, at Mr. Hardy's request, a statement of the amendments required will be submitted to him. The subject has been specially under the consideration of the Executive Committee of the General Council, which has been sitting during the present week. We may add that the Home Secretary has stated that, should his numerous engagements in Parliament permit, he will not be unwilling towards the latter part of the present session to give his support to the Medical Acts Amendment Bill. We may also state that difficulties have arisen with regard to the admission of registered British Medical Practitioners to practise their Profession in the colonies independently of colonial regulations. This subject will require to be considered in any Medical legislation that takes place this year.

The baronetcy conferred by her Majesty on Dr. Jenner is doubtless primarily a proof of the high estimation in which his Professional services and personal character are held by the Queen. But the Profession to which Sir William Jenner belongs will recognise in the honour to which he has attained a just and fitting reward of many years of earnest and self-denying labour for the advancement of Medical science. Whether in the earlier part of his career when his name was known as an original clinical investigator, or in his later life when he has been constantly before the public as the able Medical adviser of the Sovereign, Sir William Jenner has always merited the respect and esteem of the Profession; and these, we are sure, will continue to attend him now that he has attained the highest titular distinction which our barbarous insular custom allows to the cultivators and professors of the art that, of all others, has conferred most benefits on mankind.

We congratulate the St. Andrews Medical graduates on having convinced the Ministry of the justice of their claims to the franchise. The Scottish Reform Bill before the House of Commons, by the 26th section, gives the right of voting in University elections, in the first place, to all persons who are members of the General Council of any of the Universities of Scotland; and by the following clause it enacts that "every person shall be entitled to be a member of any such General Council on whom the University has, after examination, conferred the degree of Doctor of Medicine, or Doctor of Science, or Bachelor of Divinity, or Bachelor of Law, or Bachelor of Medicine, and Master in Surgery; and the name of every such person shall be registered in the book kept for the purpose on payment of the usual annual or other fee." By this clause, therefore, the St. Andrews graduates obtain the right of voting at elections in virtue of their being admitted to the General Council of their University—a liberal measure which, we believe, will give satisfaction to a large number of the Medical Profession. At the same time, it must be remembered that this Bill is not yet carried. It has to be subjected to a process of destructive distillation in Committee, and it therefore behoves the St. Andrews Medical Graduates' Association to take care that their claims, which are certainly identical with those of justice, should be supported by members of various shades of political opinion.

The contest for the coronership of West Middlesex, which was concluded on Friday last, terminated in favour of Dr. Diplock. The numbers, as published in the *Times*, were:—Diplock 1604, Hardwicke 1470, and Walter 51. The public feeling in favour of a Medical candidate was therefore overwhelming. Dr. Hardwicke, however, is not convinced that he has been fairly beaten. He has issued an address to the freeholders in which he states that the sheriff has declared him a loser by a majority of 21 only out of 2935 votes recorded; and he asserts that a large proportion of the voters were either grave-holders or watermen having no freehold right whatever. He therefore demands a scrutiny, and appeals to the freeholders for support in his endeavour to upset the return.

The University of Oxford has revived an obsolete statute, and has elected two coroners to sit on its defunct members. It will be remembered that there were three candidates in the field—Mr. Symonds, the Surgeon, Mr. J. M. Davenport, and

Mr. F. P. Morrell, M.A., Solicitors. When the polling terminated, it was found that 224 votes had been given for Mr. Symonds, 163 for Mr. Morrell, and 154 for Mr. Davenport. The two first were declared duly elected. We congratulate Mr. Symonds on his position at the head of the poll, but we cannot understand on what principle the University have thought it necessary to elect two officers to a post which is very nearly a sinecure, unless it be simply that it is hoped there will be nothing for either of them to do. As there is, we believe, no salary attached to the office, it may be both a convenient and cheap, but it is certainly a somewhat absurd, way of settling the claims of rival candidates on whom the University would wish to confer honour. In case of an inquest occurring, who is to hold it—the Doctor or the lawyer? or are they to sit together in banco?

The passage at arms between Mr. Gathorne Hardy and Dr. Lankester, in reference to the production of prisoners in the Coroner's court, has terminated by Mr. Hardy acknowledging that the Secretary of State has the power to order prisoners in custody to be brought before a Coroner while holding an inquisition, to be examined as witnesses; to which Dr. Lankester replies that it is the peculiarity of the Coroner's court that this is the only object with which accused parties are brought before it, and he hopes that in future there will be no difficulty on the subject. We see that the same question has been lately mooted at Plymouth, where the Coroner, a solicitor, has resigned in consequence of the authorities having refused to allow a prisoner to be brought before him.

Dr. Octavius Sturges has been elected by a large majority over his opponent, Dr. Cavafy, to the Assistant-Physiciancy vacant at the Westminster Hospital. Dr. Sturges is a graduate of Cambridge, and has filled the office of Medical Registrar to St. George's Hospital.

At King's College Hospital we hear that Dr. Duffin will, in all probability, be appointed Physician to the new department for skin diseases, and that the present Assistant-Physicians, Drs. Conway Evans and John Harley, will continue to hold their appointments when made permanent. Who will be the successor to Dr. Jelf in the Principal's chair of King's College remains uncertain. The Rev. Canon Cook, of Exeter, Inspector of Schools, is amongst the candidates, as are also the Rev. Professor Plumptre, the present chaplain; the Rev. Mr. Farrar, of Harrow School; the Rev. Mr. Kitchen, student of Christ Church; and Dr. Barry, Head Master of Cheltenham College.

We hear that Professor Partridge has resigned the Professorship of Anatomy at the Royal Academy of Arts, the duties of which he has so long and efficiently fulfilled. The appointment is advertised, but Professor Marshall, of University College, is spoken of as probably the successful candidate. Mr. Marshall's previous career as a lecturer on anatomy to the students of art at South Kensington has given him a special claim to the chair of William Hunter.

The Principal's chair in the University of Edinburgh, vacant by the death of Sir David Brewster, is naturally a coveted honour amongst the *savants* of modern Athens. It is not at present known what conditions will be annexed by the authorities of the University to the appointment—whether the Principal, for instance, may hold a Professorship in the University or be engaged in Medical practice. Sir James Simpson, Professor Christison, and Professor Syme, are the three Medical Professors whose reputation and position render them most talked of for the honour. The two first, indeed, have been especially singled out for it by general report. We are informed that, in the case of the Principal's chair being open to the distinguished Professors we have named, Dr. Lyon Playfair would not allow himself to be brought forward as a candidate.

It is evident from the lists we publish to-day that the advantages offered to young Medical men in the army are still most highly appreciated by the students of the sister isle. As things are at present, we think our friends on the opposite side of St. George's Channel evince a shrewd knowledge of the direction in which their interest lies.

We are glad to notice that Sir John Pakington on Friday announced that there is to be an inquiry into the circumstances under which the 86th Regiment was landed at the Mauritius during the prevalence of the fever, contrary to the expressed advice of the principal Medical officer in the island and the Surgeons of the regiment. It is inconceivable that mere motives of comfort and convenience should induce a commanding officer to subject his troops to such a fearful risk.

A somewhat remarkable railway compensation case has just been tried. A widow sued the South-Western Railway Company for damages for the loss of her husband. The deceased, a Mr. Baker, had his hand severely injured through the carelessness of a guard. Some tetanic symptoms followed, and after several months of bad health the man died with symptoms of softening of the brain. The question to be decided was whether his death was due to the injury; Mr. Le Gros Clark and Mr. Erichsen deposed that, according to their conviction, it was, but a different view was held by Dr. Vine, the Medical witness on the part of the Company. Ultimately, the Company consented to pay the widow and children of the deceased the amount of £2300. In reference to the question of settlement of claims by Medical men, Serjeant Ballantine, on the part of the South-Western Railway Company, said that "the Company were anxious it should be understood that their Medical attendants were not allowed to, and did not, take any part in these settlements, and that in future no such settlement should be allowed to be made without the sanction of the solicitor of the Company." We hope that the other railway companies will be led to a similar decision.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

Having described the Tænia solium, Professor Huxley proceeded to classify the Tæniada into the following groups:—1. The *Caryophyllidea*. These are parasitic in fresh-water fishes. They present the simplest form of tænioid worms, the most common genus having only one joint. 2. The *Tetraphyllidea*. These, in their *imago* form, are found inhabiting the cartilaginous fishes, the sharks and rays; in their *pupa* condition they are found in osseous fishes, upon which the preceding feed. 3. The *Diphyllidea*. Of these there is only one genus known, the Echinobothrium, and this also inhabits the cartilaginous fishes. 4. The *Pseudophyllidea*. The members of this group are characterised by having heads unfurnished with suckers, not divided into lobes, and with few or no hooks. The genus Ligula, which belongs to this division, and which is found in the peritoneal cavity of fresh-water fishes, is a mere flat band, and presents no segmentations. It only acquires its *imago* condition in the alimentary canal of water-birds. Another remarkable genus belonging to this group is the Bothriocephalus. It is found in the intestines of human beings, and is the largest form of tapeworm to which man is subject. It is remarkable for its fixed geographical distribution, occurring on the shores of the Baltic, Russia, Switzerland, and some parts of Ireland, and rarely elsewhere. The localities in which this worm is found are generally those where fresh-water fish enter largely into the diet of the inhabitants. It differs from other tapeworms in having ciliated embryos, and these swim about in fresh water, and may therefore enter the alimentary canal with the water that is drunk. 5. The *Tæniadea*. These in their adult state are probably confined exclusively to the mammalia. Those interesting and important parasites, Cœnurus and Echinococcus, are *pupa* forms of species belonging to this division. This group contains the species of tapeworm most common to man—viz., the Tænia mediocanellata: it occurs more frequently than the

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Tænia solium. In its *pupa* form this second species of tapeworm has a different habitat from the Tænia solium; it is found, not in the pig, but in the ox. When this animal is fed with the proglottides of this worm, the eggs are set free and hatched in its alimentary canal, the embryos perforate the intestinal walls, and so reach the blood-vessels. They are conveyed by the portal vessels to the liver, and thence to other parts of the body, where they form cysticerci. This is its *pupa* condition. When the flesh of an animal thus infected is eaten by man, the cysticercus in the human intestine developes into a perfect tapeworm, and acquires generative organs. Pork and beef are, therefore, both liable to become the abode of these parasites, and we are reduced, as a last resource, to mutton. But, unhappily, even sheep are also liable to be attacked by these parasites; but it is consolatory to know that this is of only rare occurrence. There is only one species of tapeworm known to affect sheep—this is the Tænia cœnurus. In their *pupa* condition they give rise to large vesicles having the structure of cysticerci, but each having immense multitudes of tapeworm heads. These are found especially in the brain of the sheep, and give rise to the disease known as staggers. These vesicles, covered with innumerable tapeworm heads, which can be protruded and retracted, grow to a very large size, and, by the mere pressure they cause, give rise to alarming symptoms. They are just like cysticerci with a great many heads instead of one. They proceed from the species of tapeworm termed Tænia cœnurus. This attains its *imago* form in the alimentary canal of the dog. Thus the shepherd's dog, intended as the protector of the flock, may become its most fatal scourge, for the proglottides of this worm, passing out of the intestinal canal of the dog amongst the grass, get devoured by the sheep, and the embryos, set free in the intestines of this animal, work their way into the circulating fluid, and finally settle in the brain. The echinococcus, or great bladderworm, is another of the *pupa* forms of these Tæniadea. It is found in the human body, most commonly in the liver, giving rise to the disease known as hydatids. It is found to consist of an elastic sac of a laminated structure, which is really an excretory product. This is lined by a delicate membrane covered with ramifying vessels. Within the sac a great number of vesicular bodies are found. Elevations are seen here and there on the inner surface of the echinococcus cyst; these are budding tapeworm heads, which eventually become attached by a stalk. Each is provided with four suckers and a double circle of hooklets. Some may be found free and floating in the fluid of the sac. On feeding dogs with echinococci, they pass into the *imago* condition in this animal, and give rise to the smallest form of Tænia known—the Tænia echinococci.

The Professor then passed on to the consideration of two other groups of worms belonging to the division Scolecida, the *Nematoidea* and the *Acanthocephala*. Of the latter series there was only one well-known genus, the echinorhynchus. The members of this genus are all found attached to the alimentary canal of various animals. They are not found in man. This worm lies in the intestinal canal with its head thrust through the walls of the intestine, and projecting into the peritoneal cavity. One species is found in the hog.

In speaking of the *Nematoidea* Professor Huxley paid a warm tribute to the labours of Dr. Bastian in this department of natural history, who had shown that, numerous as are the parasitic forms of these worms, they are even far more abundant in the *free* state. Nematoid worms are found parasitic in all vertebrate animals, and in many invertebrates, and affecting all organs. They also give rise to many of the abnormal growths observed in plants. They possess the remarkable power, like some of the rotifers, of resisting changes of temperature and moisture. The animal which forms the disease in the smutty ears of wheat will remain dry for ten years, and will then, under favourable circumstances, revive. After giving a general sketch of the organisation of these worms, their habits of life were described. These are very various:—

1. Some are free throughout their lives, or at most pseudo-parasitic in the sexual state. They are found in sea-water, sand, mud, etc. Some are pseudo-parasitic, as the Anguillidæ, which give rise to the smut of wheat; these reach the germen of the young flower and pass into the condition of galls. The young worm acquires its sexual state within the gall, and it may remain dried up for years; but if it is moistened in a wheat field they develope and crawl up the wheat-stalk, and again reach the germen of the flower.

2. Some are free in the sexless state, but completely parasitic in the sexual condition. This is the case with the parasite worms which infest man. It is only in the small intestine that they attain their sexual state. It is necessary that their eggs should pass out of the host. In some animals not remarkable for their cleanliness the eggs may be transferred simply from the anal to the oral aperture. But generally the larval forms inhabit water, and they are taken into the body in drinking.

3. Some are never free, or only so for a very short time, just in passing from one host to another. This is the case with that formidable parasite the *Trichina spiralis*. These have little worm-like bodies, about an eighth of an inch long in the female, about a sixteenth of an inch in the male. In the intestine of man these rapidly attain their sexual condition. Their eggs are fecundated within the body of the worm, and they are hatched alive. They pass into the cavity of the intestine, bore their way through its walls, and pass by the medium of the portal circulation to every part of the body. They bore through the capillaries and through the sarcolemma into the primitive muscular bundles. They there form a cyst, and stop short of the acquirement of reproductive organs. But in the case of cannibals they would pass into the human intestine again; they would then come out of their cysts, which would be destroyed; they would acquire a sexual state, and their embryos would bore through the intestine and get into the general circulation as before. Thus, like the tænia, one host is sufficient; but, like the tænia also, they *usually* pass into the human body by eating the flesh of the pig. After some further remarks on other forms of nematoid worms, the learned Professor passed on to the consideration of the class Echinodermata.

M. BRUNETTI'S PROCESS FOR PRESERVING ANATOMICAL SPECIMENS.

We are not aware that any detailed account of this interesting process has yet been published in this country. It consists of several operations, including the washing, the freeing from fat, the tanning, and the desiccation of the specimens. 1. The *washing* is effected by causing a stream of pure water to flow through the blood-vessels and grand ducts; then alcohol is passed through them to get rid of the water. 2. The next part of the process is to get rid of all the fat; this is done by treating it with ether, which is also injected into the vessels. This part of the operation lasts some hours. The specimen may be kept for any length of time plunged in ether, till it is convenient to proceed to the subsequent steps of this process. 3. The *tanning* is effected by first getting rid of the ether by passing a current of distilled water through the vessels, and then injecting them with a solution of tannin in boiling distilled water. 4. It only now remains for the specimen to be dried. For this purpose a current of perfectly dry and warm air is made to pass through the vessels and ducts by the following means. The specimen is placed in a vessel with a double bottom containing boiling water. The air is contained in a reservoir at about a pressure of two atmospheres; from this it is made to pass through first a tube containing chloride of calcium, and afterwards through a heated tube, and then by a system of tubes into the vessels and ducts of the specimen

that it is desired to preserve. Thus every trace of moisture is removed. The specimen preserves its volume and its normal relations, and it is light and supple. It can be handled without fear of injury, and can be preserved for an indefinite period.

NATURAL SCIENCE SCHOLARSHIP AT OXFORD.

We are informed that a "Postmastership" at Merton College is now open for competition in Natural Science. "Postmaster" is supposed to be a corruption of "Portionista," and is a title applied exclusively to the scholars of this College. The special subjects of examination will be Chemistry, Physics, and Physiology; but no candidate is expected to offer more than one subject. The emolument is £80 a year for five years—a considerable help towards the expenses of Oxford. It is to be hoped that Medical candidates of sufficient merit will be found for this and similar prizes; for, while it is very desirable that a fair proportion of those who would in any case go through the Universities should go out in Medicine, it is much more desirable that a large number of those destined for Medicine should be attracted to the Universities. There is one feature in this election which deserves notice; viz.—that there is no limit of age. The usual practice in the Colleges is to admit no one to a scholarship after the age of 20 or 21 at the furthest; how far this rule is likely to be departed from in the present case we are unable to say. At all events, the man who gains the election will have won no slight prize. Merton is a College of very good standing in the University, and, though it has not at present a single Medical graduate on its books, is a place from which any man may date with pride the beginning of his career.

THE SPEKE DENOUEMENT.

Mr. Speke, after having kept the nation on the tiptoe of excitement for nearly a month, has been apprehended at Padstow, in Cornwall, disguised as a bullock drover. The reason he gives for his escapade is that he wished to go to some country where he might work for his living and preach the Gospel to his fellow-labourers. He states that every day he saw the papers, and was quite aware of the anxiety which was felt on his account, but he had no inclination to return. He had laid out the route by which he intended to escape to America with considerable forethought, and had shown much sagacity in baffling pursuit. Medical men will probably have but one opinion on such a case. There is a kind of insanity which may be called heautocryptomania with as much justice as people speak of kleptomania. Persons get worried and irritated and tired with things about them, and, instead of drink or suicide, walk away. It is what the old man did in Dickens's "Curiosity Shop," and what it is wonderful more widows, widowers, and people with a dozen children do not do, although we believe there are a good many more such things occurring than people generally suspect.

INDIAN SANITARY INSPECTORS-GENERAL.

We learn from the *Indian Medical Gazette* that the Government propose to establish a number of new Sanitary Inspector-Generalships, so that in future the vast Presidency of Bengal will not be left to the charge of a single officer. Lower Bengal, the North-western Provinces, the Punjaub, and the Central Provinces are each to have an Inspector-General with a monthly salary of 1500 rupees. It is said that similar appointments, with salaries of 1200 rupees each, will be made in the case of Oudh, Assam, and British Burmah. The Government has certainly been well advised in undertaking this measure, and we believe that the result will be highly beneficial to the interests of both the military and civil services. Under the old arrangement it was quite impossible for the solitary Inspector of so extensive a district as that of Bengal to discharge his duties in any but the most routine and superficial manner; but now we have reason to hope that we shall hear less of those terrible hygienic blunders which have been so destructive of the lives of both Europeans and natives, and have been so heavy a tax on the Exchequer.

VACCINATION.

The Poor-law Board have now issued their promised general order prescribing the new form of vaccination contract to be entered into by Boards of Guardians with Medical Practitioners to carry into effect the recent Act. The order is dated the 15th inst., and, in addition to the form of contract, contains schedules relating to the "times and places appointed for vaccination and inspection," and the "vaccinator's register." The Lords of the Privy Council have also issued certain regulations under the authority of the Vaccination Act, 1867. They are dated the 18th inst., and are not in lieu of, but in addition to, those now in force, already published.(a) The following are extracts:—

"*I.—Places and Times for Vaccination under Contract.*

"1. Except where the Privy Council, for reasons brought to its notice, sees fit in regard of any particular district to sanction a system of domiciliary vaccination, every vaccination district shall have in it at least one public station appointed for the performance of the vaccinations under contract; and where any such station has been provided for a district, no person resident within two miles thereof, and not being an inmate of the workhouse, shall be vaccinated under contract elsewhere than at such station, unless the vaccinator in the particular case be of opinion (which, if so, he is hereby required to note in his register) that, for some special reason, the person whom he purposes to vaccinate cannot properly be vaccinated at the station.

"2. Except under special authorisation from the Privy Council as aforesaid, or in so far as may be expedient at times when there is immediate danger of small-pox, vaccination under contract shall not be appointed to be performed at any station oftener than once a week.

"3.—And in any future contract concerning a vaccination-district which is partly or wholly within a town, there shall not, except under special authorisation as aforesaid, be appointed within the town more than a single station for the performance of the vaccinations of the district.

"*II.—Vaccination Districts in Towns.*

"No part of the metropolis, or of any city, or municipal borough, or town corporate, or other town, shall, in respect of any future contract, form by itself, or with any rural place, a separate district for vaccination, except with the approval of the Privy Council, unless it contain an estimated population of at least 25,000 persons, or else be as much of the metropolis, city, borough, or town, as is for purposes of vaccination under the control of one board of guardians.

"*III.—Office of Public Vaccinator.*

"After the expiration of the month of June next, no two or more persons shall be allowed to act severally as vaccinators under contract in any one and the same part or district of any union or parish.

"*IV.—Revaccination.*

"The performance of revaccination by the public vaccinator on persons applying to him for that purpose shall be limited in each case by the following conditions:—(1) That, so far as the public vaccinator can ascertain, the applicant has attained the age of 15 years, or, if during any immediate danger of small-pox, the age of 12 years, and has not before been successfully revaccinated; and (2) that, in the public vaccinator's judgment, the proposed revaccination is not for any sufficient Medical reason undesirable; and (3) that the public vaccinator can afford vaccine lymph for the purpose without in any degree postponing the claims which are made on him for the performance of primary vaccination in his district."

DRAINAGE AND WATER SUPPLY OF MADRAS.

In the sanitary report of Madras for 1866, we observe that the urgent necessity for an improved system of water supply and drainage of the native town and Fort St. George has received the mature consideration of Government. Mr. Fraser has furnished a report on the Madras water works, showing that

(a) *Medical Times and Gazette*, January 11, 1868, pp. 51, 52.

there will be no difficulty as regards a supply of water, not only for drinking and ablution purposes, but for flushing the drains. The River Cortiliar is expected to furnish an adequate supply for all purposes; and Mr. Fraser proposes to combine irrigation works with the water supply works sufficient to redeem 25,000 acres of waste land. Captain Tulloch, in his report on the drainage of the town of Madras, considers the question of dry-earth conservancy. The Sanitary Commissioner, the Hon. R. S. Ellis, C.B., is doubtful as to the general applicability of the system, although it serves admirably in barracks, gaols, and Hospitals where the numbers are limited; it is only an expedient that is valuable until a neighbourhood has a system of water supply and drainage. At the same time he is of opinion that the liquid sewage should be utilised on the waste lands instead of being run into the sea. That the remodelling of the drainage and water supply of the town and fort of Madras has not been proposed one instant too soon is evident from the description of the present condition of the station in these respects which we have lately received from a Medical officer quartered there. The Coum river receives a large portion of the drainage of the native city on the west, and has thereby in process of time been converted into an enormous cesspool, and doubtless poisons the water of many of the wells used by the inhabitants. The sea on the east receives the remainder of the sewage by three main channels, two of which from various causes have become much obstructed, and the third, instead of continuing in a direct line to the sea, makes a bend towards the fort at a distance of about 500 or 600 yards, and at last, after passing through the esplanade and glacis, discharges itself into the sea close to the ditch of the fort. The sluices for emptying this drain can only be opened at certain states of the tide, and when the wind blows from the sea while the foul current is in motion, the effluvium which pervades the fort is intolerable. It is not an unusual occurrence for persons residing in that part of the fort to be roused from sound sleep in fits of coughing or retching by the horrible smell. It is also stated that during the north-east monsoon, which is in other respects the healthiest season, fever of typhoid character has been known to occur in the angle of the fort adjoining this drain, in consequence of the wind blowing steadily across the drain towards the fort. In the sanitary report we find that among the ten stations occupied by European troops in the Madras Presidency in 1866, Fort St. George stands lowest on the list of comparative salubrity as regards admissions and average daily sick, the former being 1957·8, and the latter 97·2 per mille; as regards mortality, which was 16 per mille, it stands seventh. The admissions for continued fever—namely, 370·8 per mille—were the highest in the Presidency, with the exception of Rangoon; and diarrhœa caused 174 admissions per mille, being a higher rate than in any other station except Bellacy. It is remarkable that the cases of intermittent fever were very few, only two having been admitted. The mortality was chiefly caused by continued fever, hepatic disease, dysentery, diarrhœa, and cholera.

FROM ABROAD.—NEW CLINICAL THERMOMETER—VACCINE VIRUS—SWALLOWING PINS AND NEEDLES.

Since we first in this country directed attention (*Medical Times and Gazette*, vol. xxxvii. p. 639, and vol. ii. for 1861, p. 326) to the very remarkable results obtained from the clinical employment of the thermometer in the hands of Professor Wünderlich, very much has been done on the subject by this the original investigator and by numerous observers both here and in Germany. The subject does not seem to have occupied so much attention in France until quite lately; but among other recent productions relating to it we may notice a paper read at the Paris Hospital Medical Society by M. Potain, in which he describes a very convenient and portable form of thermometer which he has contrived, and which is made by M. Fastré, philosophical instrument maker, Paris. Its advantages are its small size, extreme sensibility, and easy reading. Its length is only eleven or twelve centimetres, and its thickness scarcely that of a quill, so that it is carried easily in an ordinary dressing-case. It excites much less attention on the part of the patient than the ordinary instrument, is far less fragile, and can be much easier applied and retained at the points where the temperature has to be ascertained—as the axilla, mouth, rectum, etc. Once placed it remains conveniently *in situ*, so that, when the relative temperatures of different parts of the body have to be ascertained, several of these thermometers can be easily applied simultaneously. Its small size enables it to indicate the temperature in two or three minutes, and it is so graduated that one-tenth of a degree Centigrade can be read off very exactly, and half that amount without much fear of error. Its exactitude is further guaranteed by the scale being marked on the glass itself. Coloured alcohol is the material adopted. The price is not stated, but, as the instrument involves considerable delicacy of construction, this is probably considerable. The instrument is described at some length in the *Union Médicale* for February 11.

While on this subject, we may notice an interesting paper in the *Zeitschrift für gerichtliche Medicin*, by Staff-Surgeon Remond, of the late Hanoverian Army, in which he shows the great utility to be derived from thermometry in military practice, in addition to its clinical uses. Thus, in ascertaining the state of health of recruits, in detecting malingering, and in determining questions of service and transport, it has been found of great use.

In a communication to the Académie des Sciences, M. Chauveau, of Lyons, details the results of a long series of experiments he has been instituting for the purpose of ascertaining which of the ingredients of the vaccine virus constitutes its active or virulent part. He has ascertained that this resides exclusively in the solid granular matter which is held in suspension in the serosity, and that the serosity itself is not possessed of any virulent power. He has also ascertained that vaccine virus may be diluted with fifteen parts by weight of water without undergoing any diminution whatever in power. Even when the dilution is carried to fifty parts, the result is still seldom absent. Diluted by more than the fifty parts, it may still sometimes succeed, although generally it will fail. Diluted by 400 parts, it is quite inefficacious when inserted by the lancet, but even then, when injected into a vein, it is quite successful. M. Cloquet drew attention to the importance of these observations, as, if they are verified, instead of transmitting the virus itself on glasses or in tubes it will be best conveyed in solutions.

A trial having some time since made a great deal of noise in Italy, in which a Medical man was charged with killing an infant by causing it to swallow needles, Professor Zoja, of Pavia, was induced to institute several experiments on puppies and kittens in order to demonstrate the innocuousness of swallowing these bodies. The following is the summary of the results:—(1) Seventeen experiments were tried on 10 animals—5 dogs and 5 cats, between the ages of 3 and 70 days. (2) Altogether there were administered (from 1 to 2, 3, 5, to 43 at a time) 129 needles or pins, either whole or broken, 115 of them having their points sharp and 14 with these blunted. They varied in length from 5 to 35 millimetres. (3) Of 80 with sharp points that were swallowed, 48 had the points turned towards the cavity of the mouth and 32 towards the pharynx; and in no instance were they detained at any part of the alimentary canal, nor did they produce any appreciable organic or functional disorder. All the bodies were examined. (4) Those animals that were kept alive awhile evacuated the pins and needles within a space of time varying from 4 to 140 hours. The greatest number were expelled between the 20th and 48th hour. In those animals which were killed before the

needles were evacuated, these, with one exception (when the needles were found in the ileum), were found in the large intestine, from 21 to 84 hours having elapsed since they were swallowed. (5) The needles were, upon an average, evacuated in 21 hours, the pins in 26 hours; and the evacuation of both of these took place sooner when their points were turned towards the pharynx than when this was not the case. (6) The needles in passing through the canal lost their brightness, assuming a dull, smoked appearance. Their points, too, became somewhat obtuse, still, however, retaining a point sufficiently sharp to transfix the intestine. Brass pins, on the contrary, not only retained their colour, but assumed a higher polish. The pins and needles were, for the most part, introduced into the animals' mouths by means of a forceps, but in some instances they were lapped up while suspended in thick soup.

PARLIAMENTARY — CAPITAL PUNISHMENT IN PRISONS — THE 86TH REGIMENT AND THE FEVER IN THE MAURITIUS — WEIGHTS AND MEASURES (METRIC SYSTEM) — ADJOURNMENT OF THE HOUSE.

In the House of Commons on Thursday, February 20,

Mr. Hardy re-introduced the bill to provide for inflicting capital punishment within prisons.

On Friday, in reply to Mr. Whalley,

Sir J. Pakington said that the 86th Regiment had been sent from Gibraltar to the Mauritius last summer, but on arriving at the Cape was detained there in consequence of a serious epidemic then prevailing in the Mauritius. The military authorities here had sent orders to the General commanding at the Cape not to allow the regiment to proceed until he had received intelligence from the Mauritius that it might be done safely. Instructions had been also sent to the General in command at the Mauritius that he was to send to the Cape to have the regiment come off when he thought the epidemic had subsided. In the month of October General Milman, who commanded in the Mauritius, thought that the fever had so far subsided that there was no danger, and he sent word to the Cape to that effect. As soon as transport could be obtained the 86th were sent on, and they arrived on December 27. But, in the meantime, the epidemic had broken out again, and assumed a very grave aspect in the town of St. Louis. Accordingly, when the regiment arrived, it became a matter for very serious consideration whether it could be safely allowed to land. A consultation was held between the General and the principal Medical officer, and they decided that the regiment ought not to land. The Surgeon of the regiment expressed in writing a very strong opinion that the regiment ought to go back to the Cape. That opinion was communicated to the Colonel, but he remonstrated so strongly, solely on the grounds of discomfort and inconvenience in being sent back, that the General changed his mind and allowed the men to land. He took the precaution of sending the regiment as soon as possible to the out-stations, and dispersed the men in the more healthy parts of the island. The result was that up to January 17, three weeks after the landing, only twenty-five cases of disease had occurred, and he was happy to add that no death had taken place. Still he thought it his duty to know why it was that the Colonel of the regiment pressed that the regiment should be allowed to land, and why the General changed his mind and suffered the regiment to incur so great a risk. As far as he knew the facts, he felt bound to say that the landing was not justified. He was happy to state that with regard to the Artillery and the Engineers the case was not so serious as the hon. gentleman seemed to suppose. He found, speaking of what had occurred in the Mauritius, that up to the 17th of last month, only ten deaths had taken place in the Royal Engineers and only two in the Royal Artillery. In the 13th Regiment, which had returned last July, no great loss of life had occurred.

On Monday Mr. Ewart obtained leave to bring in the Weights and Measures (metric system) Bill, which was read a first time.

On Tuesday, in consequence of the resignation of Lord Derby, and the resulting Ministerial changes, the House adjourned until Friday.

ARMY MEDICAL DEPARTMENT.

The following is a list of the candidates of Her Majesty's British Service who were successful at the competitive examination in August last, and who have passed through a course at the Army Medical School, showing the combined results of the examinations:—

Name.	Studied at	No. of marks.
R. De la C. Corbett	Cork and Dublin	5197
Count C. M. Y. Wollowicz	Munich, Paris, and St. Petersburg	4966
J. Corbett	Dublin	4930
H. K. Maclachlan	Glasgow	4904
C. F. Pollock	Dublin	4690
R. J. Scott	Aberdeen and London	4486
T. A. J. Cocksedge	Cambridge and London	4471
D. M'Ewen	Aberdeen	4460
R. Macmullen	Dublin	4351
J. F. Sankey	London	4314
J. G. Randall	London	4214
R. A. Cuthbertson	Dublin	4212
W. H. M'Namara	Cork and Dublin	4132
M. M. Gallwey	Cork	4125
F. Lyons	Cork	4074
G. Hare	Cork	4020
J. S. Stewart	Edinburgh and London	3610
J. D. Gunning	Belfast and Dublin	3543
T. H. M. Clarke	Dublin	3490
M. Anthony	Cork and Dublin	3435
J. R. Leake	London	3372
J. R. Rae	Dublin	3360
J. H. Hunter	Cork	3321
W. D. Wilson	Dublin	3294
S. K. Cotter	Dublin	3278
G. W. Barroll	London	3251
J. Barry	Cork	3250
W. F. Bennett	Cork and Dublin	3226
J. A. Anderson	Belfast and Dublin	3211
J. Riddick	Dublin	3172
D. H. B. Anderson	Edinburgh and London	3131
F. H. Waylen	London	3025
H. Morgan	Cork	2969
J. D. Crowe	Dublin	2850
A. Anderson	Montreal	2790
E. M. D. Fitzgerald	Cork and Dublin	2785
T. Kingston	Cork and Dublin	2758
S. Popham	Dublin	2706
G. Shaw	Dublin	2678
D. C. W. Heather	Dublin	2665
J. J. O'Grady	Dublin	2477
R. Morgan	Cork	2415
R. F. Maunsell	Dublin	2370
J. A. Busculet	Edinburgh	2365
G. Duncan	Montreal	2307
H. Jagoe	Dublin	1460

List of gentlemen who competed successfully for appointments as Assistant-Surgeons in H.M. British Medical service at the competitive examination held at Chelsea on February 10, 1868:—

Order of merit.	Names.	Marks.	Order of merit.	Names.	Marks.
1.	T. Lewis	2170	21.	J. M. Knox	1595
2.	J. Fraser	2150	22.	R. M. Craig	1565
3.	G. E. Dobson	2125	23.	A. A. M'Robin	1565
4.	E. N. M'Swiney	1975	24.	W. H. Garde	1540
5.	J. A. J. O'Brien	1975	25.	C. B. Jennings	1465
6.	J. Walker	1905	26.	F. A. L'Estrange	1410
7.	C. E. Jones	1900	27.	G. W. L'Estrange	1410
8.	N. A. Williamson	1870	28.	W. Geoghegan	1395
9.	J. Leader	1860	29.	W. F. Samuels	1385
10.	A. H. L'Estrange	1855	30.	D. Thornton	1385
11.	A. Kirwan	1850	31.	J. Letchford	1355
12.	J. H. Ussher	1835	32.	F. Waghorn	1345
13.	G. W. Ryan	1810	33.	H. H. Burford	1295
14.	R. G. Fitzgerald	1790	34.	P. F. Frazer	1285
15.	R. F. Anderson	1785	35.	Duke Parke	1255
16.	W. C. Gasteen	1705	36.	T. W. Jackson	1250
17.	J. S. Conyers	1690	37.	A. N. Winn	1185
18.	A. L. Brown	1655	38.	W. J. Campbell	1160
19.	J. H. Reynolds	1640	39.	O. S. Eager	1140
20.	J. R. Rahilly	1600			

DWELLINGS FOR THE LOWER CLASSES.

At the usual monthly meeting of the Health Officers' Association, on Saturday the 15th inst., two subjects were on the *agenda* paper for discussion—(1) the Artisans' and Labourers' Dwellings Bill introduced into the House of Commons this Session by Mr. Torrens, and (2) the Propagation of Cholera by Water, to be opened by a paper from Dr. Letheby. From the nature of the attendance at the meeting, very little perception was required to forecast the issue as to the chance of the interesting and important subject placed first on the list being disposed of in time to allow of Dr. Letheby's paper to come on the same evening. For those present who were concerned in the theories of choleraic propagation, the necessity soon became apparent that they must divert their thoughts into another groove, and await a more favourable opportunity for the scientific encounter which may be anticipated in reference to Dr. Letheby's well-known views on this matter. In the absence of the President (Dr. Druitt), Mr. Liddle, the Medical Officer of Health for Whitechapel, occupied the chair.

Mr. Torrens, M.P., first addressed the meeting, explaining the details of the Artisans' and Labourers' Dwellings Bill which he had brought forward in the House of Commons last year, and which, with some slight alterations, he hoped to be able to carry through the Legislature this Session. His object in thus meeting the Health Officers was to hear their opinions and to enlist their support; for without the co-operation of the Medical Profession and the clergy—the two classes most familiar with the condition and wants of the poor—it would be almost impossible to carry his Bill. Petitions should be sent in to Parliament to show that there is an earnest desire for the Bill. He considered that some such measure was absolutely essential to prevent the Sanitary Act from becoming a failure; that Act gives power to diminish overcrowding, but it is not, and cannot be, enforced as long as the only alternative is to turn the poor into the streets or to drive them into other quarters equally or more densely populated. There are, of course, difficulties in the way of preventing traffic in worthless property, but these are not insurmountable. The fact that the State has had for years the use of many millions of money belonging to the thrifty poor, paying only 2½ per cent. interest therefor, ought to dispose the Government to lend money out of the Imperial exchequer at the rate of 3½ per cent., which the Bill asks for, to enable local authorities to build new houses or to purchase and rebuild, for the occupation of the poor, condemned and unhealthy houses. With regard to the threepenny rate, which the Bill would authorise, Mr. Torrens wished it to be distinctly understood that this is only to provide against any possible loss by the local authorities—a state of things which he honestly believed would never arise. If he thought for a moment that the effect of his Bill would be to enhance in the slightest degree the present heavy burdens to which ratepayers in the metropolis are subject, he would be no party to bringing forward such a measure; on the contrary, he believed that it was the very need of better house accommodation which caused an incalculable amount of the sickness, disease, and pauperism that now swell the poor-rates, and that his Bill would go far to diminish. He trusted, therefore, that the Health Officers would come to the conclusion that on every consideration, economical as well as moral, the Bill was deserving their hearty support, and would at the same time give him the benefit of any suggestions which their experience suggested in regard to its details.

Dr. Letheby advised that more easy means should be offered to the local authority for reimbursing itself for any costs or charges under the Bill: he thought that a very simple plan would be to empower the local authorities to take and hold possession of property until they had recouped themselves out of the rents.

Dr. Bachoffner felt sure that the vestries would strongly object to a proposition involving a threepenny rate, and he did not envy the Health Officer who would have to discharge such onerous duties as those imposed by the Bill, especially taking into consideration the fact that a large proportion of London vestrymen consists of the very class of proprietors of small house property which would be chiefly affected. He suggested the appointment of a distinct officer under the Bill, for he felt satisfied that the ordinary Officers of Health would find it impossible to carry out the duties. He was quite in favour of the Bill, but he feared it would not pass.

Dr. Tripe said that every Health Officer would be called upon by the Bill to perform very unpleasant and difficult duties, for which, however, there was no pay provided. He felt very strongly that some protection must be afforded to Health Officers, who would be brought into antagonism with the local authorities on this matter. The difficulties surrounding the subject were very great. Only the other day he discovered in his district six people (of both sexes) living in one room which ought not to have held more than two. In Hackney last year they had served 240 notices to abate overcrowding. The people so removed were traced first to other parts of the district, and when driven from there they went to swell the already over-populated districts of Bethnal-green, Shoreditch, etc.

Mr. Elt expressed the strongest objection to putting more rates on to occupiers. To give some idea of the magnitude of the undertaking upon which Mr. Torrens's Bill would launch the metropolitan ratepayers, he observed that on his way to the place of meeting that evening he had passed through Leather-lane, and just in that one neighbourhood—a small dot only on the map—if the Bill became law and was properly enforced, a sum of money equal to a threepenny rate over the whole metropolis for a year would be required to substitute proper house accommodation for that already existing.

Dr. Whitmore said that there were in Marylebone whole districts which were the perennial sources of disease, and which, if the Bill passed, he would have to declare were utterly unfit for human habitation. Where were the people to go to? He remarked that within the last six months no less than 8d. in the pound had been added to the rates in Marylebone; they were 4s. 1d. before, and now they are 4s. 9d. in the pound. He considered that any such measure as Mr. Torrens proposed ought to provide for imperial and not local action, for he felt that as a local question it was far too comprehensive to be worked.

Dr. Gibbon observed that in his district he could walk for two miles through charity property in a very bad state, and which was all exempt from taxation.

Mr. R. Rawlinson hoped that the Health Officers would give all possible encouragement to Mr. Torrens to persevere in the noble work he had undertaken. Much had been said that evening about excessive taxation, but little notice had been bestowed upon the enormous taxation of virtue, of health, of life, which we suffer yearly. He felt that there was an absolute necessity for the Bill, and, as for the difficulties which would undoubtedly have to be encountered, they would find them vanish if able, resolute, and earnest men undertook the work. The property which the Bill sought to improve was a constant tax upon the community; high rates were created by bad property, which gave rise to sickness and pauperism, to say nothing of the costliness of the crime engendered thereby. Other towns (Liverpool and Sunderland) had set the example, and he hoped that London would by this Bill speedily follow.

Mr. Rendle said that in the lower neighbourhoods of the metropolis great communities were increasing of a class which in very truth might be described as dangerous to the public safety. Living under the conditions they did, it was hopeless to expect that aught could result but that which experience showed had come to pass. In his own district there were at least 20,000 people who, to all intents and purposes, were perfectly lawless; and when these are told by their Health Officers that fever ought to be and might be abolished, that want of water ought not to be felt, and that other circumstances ought to be remedied, what wonder if a feeling is excited that bodes no good in the future? He hoped therefore that Mr. Torrens would, in spite of all discouragements keep on "pegging away" until his Bill was carried. To wait is only to increase the difficulty to be met by-and-by.

Mr. Liddle, in closing the discussion, pointed out the necessity for an amendment of the existing Building Acts simultaneously with the passing of Mr. Torrens's Bill; otherwise there would be no means to prevent builders and landlords from perpetuating the constructive errors which now cause so much mischief. He observed that while large sums of money were spent every year in improvements which related to traffic, not a farthing could be obtained for the improvement of the dwellings of the poor.

Mr. Torrens thanked the meeting for the suggestions which had been offered, and reiterated his belief that the Bill would tend to decrease the rates, not to increase them.

A resolution was adopted for the preparation of a petition

from the Association to Parliament in favour of Mr. Torrens's Bill.

Dr. Letheby's paper on Cholera was announced to stand over for the next meeting.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

EDINBURGH, January.

YOUR Edinburgh correspondent has frequently had the pleasant duty of reporting important lectures delivered under the auspices of our College of Surgeons. A *conversazione* was given by this body a few evenings ago, and as the lecturer was the Professor of Physiology in the University, and his subject "The Atmospheric Germ Theory," a large audience was present. Dr. Bennett first gave an historical sketch of the views on the subject from the days of Aristotle. A detailed account was given of the elaborate researches of M. Pasteur, from which, as is well known, that distinguished physiologist was led to conclude that the phenomena of so-called spontaneous generation are readily explained by the development of germs which are nearly everywhere present, and which are endowed with almost indestructible vitality. Professor Bennett asserted, as M. Pouchet has done, that no satisfactory proof has been advanced of the existence of such germs. He believes that the animalcula and fungi that appear in vegetable or animal infusions are developed by an aggregation of oleo-albuminous particles, and the subsequent coalescence of the results of these aggregations. The forms that are assumed by the low organisms thus produced were said to be principally dependent on the state of the atmosphere, of the temperature, of the light, and of the containing menstruum. After referring to some experiments made by himself in examining the conditions of the origin and growth of low organisms in various infusions, Professor Bennett concluded his admirably delivered lecture by making some general statements on the harmony that exists between the views he advocated and the Biblical teaching on the subject.

It is perfectly obvious that this theory is probably the most natural one that can be maintained by the learned Professor whose name is so intimately connected with the molecular theory of development. We fear, however, that the original observations that were brought forward in its support will be considered quite insufficient to establish Professor Bennett's position.

We think it will interest your readers if we give a short account of a recent communication to the Royal Society of Edinburgh by Dr. Crum Brown and Dr. Thomas R. Fraser on "the modifications produced by direct chemical addition upon the action of certain poisons." Dr. Crum Brown is well known as an able chemist, and his system of graphic notation is now generally adopted by writers on chemistry; Dr. Fraser is the author of various papers on the physiological action and on the chemistry of active substances. In this paper it is asserted that a connexion must exist between chemical constitution and physiological action. An examination of known facts appears to make it extremely probable that chemical condensation is intimately connected with physiological activity, and that the greater this is, the greater is the energy of a substance. Carbonic oxide and carbonic acid were mentioned among the examples in support of this supposition. With the view of examining the nature of this relation, they select, in the first place, the modifications produced by direct chemical addition. Some statements by Stahlschmidt and Schroff regarding the changes produced in strychnia when various salts of methyl are added to it, induced the authors to examine the action of the compounds of several vegetable bases with these substances. The alkaloids they thus examined were strychnia, brucia, thebaia, codeia, morphia, and nicotia.

When iodide of methyl-strychnium was exhibited to rabbits by subcutaneous administration, as large a dose as twelve grains caused no effect; fifteen grains produced symptoms which were recovered from; and twenty grains was a fatal quantity. Twenty grains were given without any effect by the stomach. The value and interest of these results are apparent when it is recollected that the one-twentieth of a grain by subcutaneous administration, and that the one-tenth of a grain by the stomach, are sufficiently large doses of strychnia to produce rapid death. The sulphate of methyl-strychnium, though much more energetic than the iodide, is less so than strychnia, one grain being about the minimum fatal dose for rabbits by subcutaneous administration. This substance is, however, more soluble than the iodide of methyl-strychnium, and this may explain the difference of energy. The fatal dose of iodide of methyl-brucium was found to be very nearly the same as that of iodide of methyl-strychnium; while the sulphate of methyl-brucium was said to be less energetic than the corresponding strychnia preparation, two grains being insufficient to kill a rabbit. An opium alkaloid—thebaia—has exactly the same action as strychnia or brucia. Drs. Brown and Fraser found that the fatal dose, by subcutaneous injection, of iodide of methyl-thebaium is ten grains. The direct chemical addition of iodide or sulphate of methyl had therefore greatly increased the fatal doses of these three alkaloids; but another most extraordinary effect was produced—their physiological action was completely changed. In place of their administration being followed by exaggerated reflex activity, convulsive spasms, and tetanus, they now caused paralysis. Drs. Brown and Fraser further prove by experiments on frogs that this paralysis is due to an effect on the peripheral terminations of the motor nerves, and that the action of these substances is therefore identical with that of curare (wourali).

The fatal doses of codeia and of morphia were also found to be greatly modified by the addition of iodide or sulphate of methyl. Their convulsant action in the lower animals was converted into a paralysing one; but their soporific properties were not altogether removed. A rabbit could not be affected by iodide of methyl-morphium, even when so large a quantity as twenty grains was exhibited by the subcutaneous tissue, or thirty grains by the stomach. One of the authors took one grain of this substance, containing about three-fourths of a grain of morphia; but absolutely no symptom was caused. The administration, however, of sulphate of methyl-morphium, of sulphate of methyl-codeium, or of iodide of methyl-codeium, produced sleep in the lower animals.

There are few poisons that are so energetic as nicotia. Drs. Brown and Fraser obtained, by the addition of iodide of methyl, an extremely soluble crystalline body, which is not fatal to rabbits, by subcutaneous administration, in the comparatively large dose of sixteen grains.

The authors concluded their paper by pointing out some of the obvious practical applications of the curious results they have obtained. Among these, the great want of a substance producing the effects of curare is now supplied; for the sulphates of methyl-strychnium, of methyl-brucium, and of methyl-thebaium are perfectly pure and constant preparations, which may be substituted with advantage in therapeutical and physiological applications for that rare and by no means uniformly active agent. They also promise to communicate further researches in the vast and important field they have entered.

We anticipate a successful session for our Medico-Chirurgical Society from the activity that has been already displayed in its proceedings, and from the great value of many of the papers that have been read before it. Dr. Omond has, this year, been appointed President in the place of Dr. Moir, who has had conferred on him the honour of the Presidency of the Royal College of Physicians. At last meeting of the Society, a very interesting paper was read "On the Effects of Rhus Toxicodendron" by Dr. Sanders, who is well known for his able researches on the causation of aphasia. Dr. Sanders gave a most admirable description of the symptoms in a case of Rhus poisoning successfully treated by him in the Infirmary, and a clear account of the connexion of these symptoms with the reception of a virus from the plant. This case is especially valuable, as it has been frequently asserted, after careful experimental investigation, that the effects which have been attributed to Rhus are either greatly exaggerated or purely hypothetical.

February 24.

The death of its illustrious Principal, Sir David Brewster, has inflicted a deeply regretted loss on our University. It is unnecessary that we should, in this place, refer to the eminent position that Brewster occupied among the leaders of science and philosophy, or attempt the almost superfluous task of examining the causes of his great reputation. It will soon be the difficult duty of the University curators to appoint his successor, and speculation is busy in anticipating the decision of these gentlemen. Several names are mentioned of those who are worthy of this exalted honour. The most prominent

among these are—Mr. Syme, Professor Playfair, Sir William Thomson, Sir Alexander Grant, Sir James Y. Simpson, and Professor Christison. It is probable that one of the last three will be appointed, but further than this it is impossible to predict. Sir Alexander Grant is a well-known commentator of Aristotle, and either now occupies a prominent educational appointment in India, or very recently did so. He is spoken of as the successor of the late Professor MacDougall in the chair of Moral Philosophy in this University, and his friends and admirers are anxious that, in the event of his obtaining this Professorship, he should also receive the Principalship. Of the claims of Professors Simpson and Christison, little requires to be written for the readers of a Medical paper. We make this statement of the probabilities with the obvious reservation that peculiar difficulties exist in anticipating the result of an election in which but little can be known of the opinions of the electors, as there can be no candidature with its necessary revelations. Should either Professor Simpson or Professor Christison be appointed, there is not the slightest reason to suppose that any change will take place in the Medical Faculty. Far from there being anything incompatible between the performance of the active duties of a chair and the assumption of the dignified position of a Principal, it has been the exception in this University for the latter appointment to be held by one who was not also a Professor.

GENERAL CORRESPONDENCE.

PRACTICE IN SPANISH WEST INDIES.—LETTER IV. SEQUELÆ OF INTERMITTENT.

[To the Editor of the Medical Times and Gazette.

Sir,—As I sincerely sympathise with any young Physician who may be destined to encounter, as I have done, the dangers and difficulties of exercising his profession in the Spanish West Indies, I will accompany him while he examines into some of the more important sequelæ of intermittent fever, which now await him in his consulting-room. I shall only touch upon some of the most prominent symptoms.

The first case is that of a young man who has suffered from tertian during the last twelve months. He will tell you that he has tried every remedy under the sun, including quinine in every form and dose; the curanderos have dried him up into a mummy, the Doctors of his own country have all but killed him, and he is now compelled to throw himself at the feet of the eminent foreign Doctor before whom he has now the honour to stand (by the bye, the patient who flatters, and runs down his former Medical adviser, seldom pays the Doctor). This man is thin, sallow, dejected, and yet highly nervous and sensitive; complains of no pain over regions of spleen and liver; tongue moist and clammy, redder than natural at the tips and edges; pulse over 90; skin hot and dry; but he is troubled with a short dry cough; pain on deep inspiration; pain and tenderness over stomach and abdomen; occasional mucous diarrhœa—in a word, symptoms of bronchial and intestinal mucous congestion, and just the sort of case to take upon itself the remittent form, and, in its worst form, yellow fever, if exposed to its exciting cause.

As the malaria appears to have acted specially upon the mucous membranes of the bronchial and intestinal tubes, I would prescribe a pill composed of ant. pot. tart. gr. $\frac{1}{12}$th to $\frac{1}{6}$th, pil. hydr. gr. j., quinine gr. ij., night and morning, and a mixture with some salt of potash in infusion of simaruba three times a day.

This is one of the most common causes of obstinate tertian that I have met with in the West Indies, and I have found this tartar emetic combination the best. In cases of long duration which would appear to have resisted all treatment, moral influences may do good. I once, in the case of a patient in whom I felt interested, gave an alarm of fire shortly before the expected attack; the patient ran out in the greatest fright, and the paroxysm did not appear on that day.

The next case is one where congestion and enlargement of liver and spleen are the more prominent sequelæ. There is a sense of weight and slight pain on pressure over liver; patient weak and emaciated; skin of a dirty clay colour; urine tinged with bile; pulse regular; not feverish; abdomen rather tumefied, but no fluid in the peritoneum. Apply leeches to the anus to relieve hepatic and intestinal congestion; take away a little blood occasionally by cupping over liver; give a pill, one grain of blue pill with two of quinine, twice a day, as in the foregoing case, but without the ant. pot. tart., and the diuretic mixture as before; rub in ointment of ung. hyd. ʒ j., ext. belladonnæ ʒ ij., pot iod. ϑ jss. in 3 ounces of lard, night and morning; but should the state of liver be one solely of enlargement, without pain or inflammation, give mercury only as a purgative. Still, even in such cases small doses of mercury with diuretics may, with judgment, be administered. Here I would begin with a purgative, ten grains of calomel with twenty of pulv. jalap. co., repeated blistering over liver, and give a mixture containing the iodide of potassium in infusion of calumba. Martin's plan of nitro-muriatic acid baths is occasionally very useful, also the nitro-mur. acid drops. In cases of enlarged spleen, we had better not use internally any preparation of mercury, although externally it may be applied with belladonna and iodide of potassium, and internally the salts of potassium, the iodides, the bromides, etc.

The next case presents a consequence of malarious poison in the form of ascites. This may proceed from chest or heart disease, causing obstruction to the circulation through the right heart, or from obstructed state of the portal circulation, so often caused in tropical climates by the over-stimulation of alcohol, especially amongst foreign sailors; but here the portal obstruction is the consequence of malarious congestion. In all cases obstruction to the portal circulation will produce ascites. In time the liver, enlarged from the specific poison, obstructs the passage of bile, and also the circulation through the portal veins; hence the extreme branches, which go to form the great vein, exhale serum into the peritoneum, and from the same cause the veins of the alimentary canal become turgid, and hence dysentery and other serious consequences supervene. Dropsy, in the course of intermittent, almost always begins by anasarca in the lower extremities, which extends upwards gradually but certainly if not checked by the proper remedies.

When it is the consequence of enlarged spleen, it is more manageable and of more temporary duration than dropsy from enlarged liver. I would begin with acting strongly upon the bowels by the pulv. jal. co., or small doses of elaterium with soda; then give a pill of calomel and opium with squill and digitalis three times a day, and a mixture with infusion of angustura bark, with small doses of pot. iod.; rub over the abdomen the belladonna and iodine ointment. Keep the bowels open by emollient injections, which, in the tropics, are extremely useful, and more frequently used by the Spaniards than by any other nation.

A case of chronic dysentery next presents itself, generally resulting from, or associated with, diseased liver. Although in certain epidemics some very bad cases are the consequence of the direct action of the malarious poison upon the mucous membrane of the intestinal canal without the previous affection of the liver, such dysenteries are ushered in with active fever, soon to subside into fever of an asthenic type.

Let us now suppose a patient suffering under a chronic form of this disease, just able to crawl about a little. He has already used all the known astringents in such cases—acet. of lead with opium, tannin, small injections, so frequently used by the Spanish Physicians, consisting of ext. of rhatany, camphor, and ext. opii in gum water—but with no avail. I would begin by ordering two ounces or more of oil of almonds to remove any scybala, and then order an infusion of ipecacuanha, ʒj. of rad. ipecac. to six ounces of water, two tablespoonfuls every three hours, to be continued though sickness should come on; an injection twice a day, with an ounce glass syringe, argenti nit. gr. j. to an ounce of water with a little ext. opii; give eight or ten grains of Dover's powder every night at bedtime, and, should he improve a little, order the following pill night and morning, which I have found very useful:—Pulv. Doveri gr. iij., pulv. ipecac. gr. ss., hyd. c creta et ext. hyoscyami ää gr. j. Let him take a wineglassful of infusion of simaruba three times a day, and should any relapse take place you may order the sulphate of copper and opium.

Great attention must be paid to diet; and the Spaniards expect you to give them a complete list of what to eat and what to avoid.

Where blistering is to be recommended, as in some of the foregoing cases, we must be extremely careful how we employ them. I have seldom left a blister on longer than eight or nine hours; after removal it is to be dressed with simple cerate or sweet oil. When vesicles shall have appeared, they must be gently punctured, and the cuticle must not be removed; for in these diseases in the tropics there is a

hæmorrhagic tendency, such that a sore established, or even a cut in the finger, may lead to serious consequences, which might be detrimental to our friend's professional character.

Hemicrania is another disagreeable sequela of intermittent, sometimes accompanied with an agonising pain at one particular spot in the course of a facial nerve. I would apply as a temporary relief chloroform by inhalation, rub gently over the part affected ung. aconitinæ gr. j. to ʒss. of lard, and take a pill two or three times a day, gr. ij., valerian, quinine, with ext. hyosc. and pil. rhei co. Should the liver be torpid, employ the following excellent mode of administering blue pill, introduced by American practice:—order the necessary dose of blue pill to be rubbed with mag. carb. ℈ j., pulv. rhei ʒss. in one ounce and a half of peppermint water, to which a few drops of sp. am. co. have been added. This acts gently and effectually, and is to be taken at bedtime.

Now all the above cases are presented in their less severe form, so as to allow the patient to come to the consulting-room of the Physician, and the treatment is therefore applicable to such cases. But the same cases attended at their homes may require a more careful and more varied treatment, although founded upon the same principles. We must treat symptoms as they appear, and not employ a nostrum, however valuable, in the disease indiscriminately. Something must be done by our friend on his first introduction to Spanish practice, and the plan I have recommended is, with all due humility, that which I have found to be the most successful. Upon our friend's treatment of his first cases will depend his future success in a Spanish country.

Numerous are the valuable indigenous medicinal herbs used by the natives in the cure of their diseases; and I much regret that, previous to my departure from these Spanish islands, I had not made a collection and proper classification of the plants most generally used by the curanderos. Had I ever, Mr. Editor, dreamt of giving publicity to the results of my experience, I should certainly have considered it a Professional duty to make such a collection; however, it is not too late. I hope in a short time to present to my Medical friend a complete list of some of the most used and highly valued plants employed by the curanderos in the island of Cuba, properly classified, with their names in Spanish and in English.

I am, &c. MEDICUS.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 11, 1868.

MR. SAMUEL SOLLY, F.R.S., President, in the Chair.

A PAPER, by Mr. J. BRENDON CURGENVEN, was read on

INFANTILE REMITTENT FEVER, ERRONEOUSLY CALLED TYPHOID.

The author observed that the points of analogy between typhoid and infantile remittent were not so well marked as between typhoid and typhus, or scarlet fever and measles. The error of confounding the two diseases had arisen from the continued character of the fever in severe cases, the duration of the fever, the diarrhœa that exists in most cases, and the eruption that appears on a few. Several English Physicians had been misled by the writings of M. Rilliet, M. Barthez, and other French authors. "To M. Rilliet," says Dr. West, "we are indebted for a most elaborate inquiry into this subject, which shows so close a resemblance to subsist between the two diseases as must, I think, remove all doubt with reference to their identity. Medicine," he says, "has not been able to cut short the course even of their mildest forms. . . . And it will tend," continues Dr. West, "greatly to the avoidance of errors . . . if, for the future, we altogether discard the term infantile remittent fever from our scientific nomenclature, and speak, as many French writers do, only of typhoid fever in children." The symptoms of typhoid fever in children, as given by Dr. West and Dr. Tanner, were related, and shown to correspond entirely with the symptoms of infantile remittent fever. They were—loss of appetite, listlessness, drowsiness, an exacerbation of fever at night with delirium, exacerbation also at 11 a.m. and 3 p.m. the remission being accompanied by a subsidence of most o' the symptoms. In severe cases the remissions became lesf marked, and might be altogether overlooked, the fever then appearing continuous. There is mostly constipation at first, which is succeeded by diarrhœa, the stools being dark and offensive. There is pain and often tenderness in the abdomen; this is at the epigastrium, and not in the right iliac region. There is short hacking cough, with sibilus and rhonchus in the lungs. The rose spots are stated to appear in the second week; but, as Dr. West remarks, "they are often very few in number, and not infrequently are altogether absent." "The fever," he says, "cannot be considered as passed before the thirtieth day. The convalescence is slow, and it is often prolonged for months." The right course to follow in the treatment, we are told, "is to carry the patient through an affection which we cannot cut short, with as small an amount of suffering and danger as possible." Diluents, laxatives, alteratives, leeches to the abdomen and the head when the symptoms so indicate; tartar emetic and opium; blisters to the occiput. In convalescence it is said that "tonics either do no good, or are actually injurious by rekindling the fever." One of the most important features of the disease is the temperature of the body, which falls quite, or nearly, to that of health between the exacerbations; and, when such is the case, the disease is not, nor can it be, associated with continued fever or typhoid, in which the temperature is above that of health, and continues so with but slight variation through the whole course of the disease. The characteristic symptom of the disease is the remission of the febrile symptoms. This may occur once, sometimes twice, and even three times, in the twenty-four hours. The period of remission varies in its duration and in its period of accession. The remission may last for six or twelve hours, or its period may be so short as to escape notice; and the fever presents then the appearance of continued fever or typhoid. The disease in severe casses passes to this state at once, and is thus easily mistaken for typhoid or typhus, as the abdominal or cerebral symptoms most predominate. In mild cases the nightly fever is unaccompanied by delirium, and may escape notice altogether, the gastric symptoms or the cough alone attracting attention, the ailment being then regarded as arising from gastric derangement or bronchial congestion, as one or other of these symptoms predominates. While the symptoms point to malaria as the cause of infantile remittent, the result of the treatment of the disease by quinine fully confirmed the views of the author. He related eleven cases of variable severity, in which large doses of quinine at once arrested the symptoms, and the children within a few days became convalescent. All these cases occurred in a new, well-drained district in the month of March, 1867, with the exception of the eleventh, which occurred in October. The district is remarkably free from typhoid fever, the author not having had but one case there during eleven years, and that was in a young lady who was brought home from Worthing ill with the disease. He believes typhoid to be more rare in children than is commonly supposed, that disease occurring more frequently between the ages of fifteen and thirty. He does not deny that typhoid occurs in them; but the typhoid poison more frequently produces in children a fatal diarrhœa. Infantile remittent is caused by a malaria in the spring and autumn months, the same malaria that, in adults, gives rise to various masked forms of malarial disease, such as paroxysmal cough, remittent sickness, diarrhœa, neuralgia, etc. The adult may, in fact, have one or more of the symptoms of the disease, but in them the cerebral symptoms and the fever are much less marked than in children.

Dr. WEBSTER said that when he was Physician to a Medical institution in Westminster, nearly forty years ago, remittent fever in children was a very common affection. He agreed with the author of the paper as to the symptoms which it presented, and was of his opinion also that it differed essentially from typhoid or continued fever. The remissions which he had observed were often quotidian, but varied in different cases. It was more frequent in spring and autumn. He had always considered that it was dependent on malaria. Westminster was damp and low, and when the wind was in the south-west the complaint was the most prevalent. With respect to treatment, he had found the powder of bark, carbonate of soda, and powder of ginger, in small doses, the most efficacious, combined with the occasional administration of a mild purgative.

Dr. HILLIER differed entirely from the views of the author, and considered the acceptance of them would be going back full twenty years. The symptoms and post-mortem appearances were the same in what was called infantile, remittent, and typhoid fever, or *gastro-enteritis*. He doubted, however, if all

the cases related by the author were typhoid; some of them appeared to be instances of pneumonia, others were cases of malarial poisoning assuming the intermittent character, and were cured by quinine.

Dr. O'Connor considered none of the cases related were instances of typhoid fever, but cases of pneumonia and other diseases which had been incorrectly diagnosed by the author of the paper.

Dr. Weber did not know what was the real meaning of remittent fever in children; some of these so called were cases of intermittent, and some of typhoid fever, some were complicated with pneumonia, some with tuberculosis. In Germany they did not give a distinct name to a train of complex symptoms, which might arise from very different causes. Several different diseases had been classed by the author under the name of remittent fever.

Dr. Habershon said the author was quite able to detect a case of pneumonia when he saw it. He thought the paper valuable as showing the success of the use of quinine in certain cases of local congestions, in which it is not generally considered to be of service.

Dr. Wynn Williams mentioned that when the underground railway was in course of formation, cases of intermittent fever in children were very common; quinine was found to be the best remedy.

Mr. Curgenven replied.

A paper, by Mr. Henry Lee, was read on

CASE OF A DOUBLE HERNIA IN A SINGLE SAC.

In this paper the particulars of a case were related in which, during the operation for hernia, two openings were discovered between the sac and the peritoneal cavity. These openings both existed in the neck of the sac at the internal ring. It was supposed that the testis, which had not descended on the side of the hernia, had lodged at the internal ring, and that, by its pressure on the one hand, and the pressure of a truss on the other, adhesions had been established between the two layers of the original hernial sac opposite the most projecting part of the testis. On each side of the adhesions so formed, a fresh hernial protrusion had, it was thought, occurred, so as to present two distinct herniæ in one sac. One of these herniæ, when the patient was first seen, presented a decided impulse upon coughing, which led to the belief that no operation would be required. It appeared, however, subsequently, that the second hernia was strangulated at the time. The symptoms were all relieved by the operation.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 4, 1868.

J. Simon, Esq., President, in the Chair.

Mr. Nunn exhibited a

STOMACH RUPTURED SUPERFICIALLY,

which had been removed from a patient who had been thrown feet downwards from a height of sixty-six feet, owing to the giving way of a lift. He had compound fracture of one leg, and a simple fracture of the other, and died from apparently inexplicable sinking twenty-four hours after amputation. There was no vomiting of blood during life, although there were many lesions similar to that of the stomach along the intestinal tract. There was but little pain, although a good deal of sickness was present. He passed some black stools and a little blood on the second day.

Mr. Nunn also showed a

RECURRENT TUMOUR OF THE BREAST.

Last session he showed a very large one weighing four pounds which had been removed from a young woman, aged 26. That was the second removal. He now showed the results of a third growth. It extended into the thorax between the ribs, and caused partial absorption of the sternum. There was no other disease of the body. Referred to Committee.

Finally, Mr. Nunn brought forward some

FUSIBLE URETHRAL CALCULI,

removed from the peritoneum of a patient who said he had passed scores such.

Mr. Pick next exhibited and described an

ANEURISM OF THE HEART

removed from the body of a boy aged 31. He had suffered from a cough for two years. The heart was large, weighing twenty ounces; its surface was rough, and its ventricles dilated and lined with a sort of fibrous membrane. On the right side below the semilunar valves was an aneurism, with an opening the size of the point of a finger, partly closed by fibrin. In the septum was a sac containing much fluid blood, and communicating with the aorta and right auricle.

Dr. Dickenson showed some very soft

RICKETY RIBS AND STERNUM

removed from a child aged 2 years. It had died suddenly while undergoing a stethoscopic examination, probably from the pressure on the chest It suffered from pneumonia, and died without a struggle.

The President confessed to a degree of uncertainty as to the cause of death. Position had, no doubt, something to do with it, but it was questionable whether apnœa was the cause.

Mr. Croft remembered a case in which, when operating for harelip, the child swallowed a few drops of blood and looked as if dead. He turned it, removed the clot, and the child did well.

Dr. J. Ogle had heard of one curious case, that of a child labouring under cyanosis, who, when tossed up into the air by its father, came down dead.

Dr. Moxon spoke of a man who was taken from a public house, and was living when brought to the steps at Guy's, dying without a struggle before he could be seen. A large piece of beefsteak was found in his throat.

Mr. I. Brown suggested that the case was similar to one of overlaying, as when a child died from its mother laying her arm on its chest

Dr. Cholmeley exhibited a brain, taken from a woman, aged 24, with

CIRCUMSCRIBED ABSCESS IN THE ANTERIOR LOBE OF THE LEFT CEREBRAL HEMISPHERE.

She had had rheumatic fever nine years before, and had of late been subject to attacks of headache, together with painful swelling and redness of the ankles and other joints. During the previous fortnight she had been suffering under one of these attacks with more severe headache than usual. Suddenly she became unconscious, with wandering, rambling talk, and for three days this continued, with also frequent short rigors. She was then brought into Hospital. All rigors had then ceased, and the talking; she lay like a person in deep sleep; the respiration regular and equal, pectoral; pulse 100, not perfectly rhythmical; abdomen concave, motionless, but soft and supple. There was no paralysis. She could not be roused, and in this state she continued till the fourth day after her admission, when she suddenly died, no additional symptom having shown itself, with the exception of slight difficulty of deglutition. There was no albuminuria and no heart disease. After death an abscess was found in the upper part of the anterior lobe of the left cerebral hemisphere. No embolism of artery, no tubercle, no disease of bones or membranes could be discovered. All the other organs were healthy; only the lungs and the kidneys were somewhat congested.

In reply to Dr. Risdon Bennett, it was stated that the petrous bones were not removed or divided, but there was no sign of disease of them.

Mr. Kelly showed an

ABNORMALITY OF THE KIDNEYS,

there being two on the right side and none on the left. They were placed the one above the other, the right being uppermost.

Dr. Sutton showed a

RUPTURED ABDOMINAL ANEURISM FORMING A FALSE ONE.

The patient, a man aged 31, came under the care of Dr. H. Davies, and maintained that he had been in good health up to eight weeks before his admission, when he was squeezed by a cart, after which he complained of pain. This went away, but again returned, and he was obliged to be admitted into the London Hospital. The tumour was made out, but was supposed to be an aortic aneurism. After death no blood was found in the abdomen; all was behind the peritoneum.

Dr. Sutton exhibited some specimens of

DISEASED BRONCHIAL GLANDS

removed from a patient under Dr. Risdon Bennett. The young woman (aged 23) was well grown and plump, but pale. She complained of pain in the chest. After death, the left lung was found to contain many abscesses, and no healthy tissue; its bronchus was occluded by the diseased mass. The right lung was healthy.

Dr. Sutton also showed an

ANEURISM OF THE PULMONARY ARTERY

occurring in a man, aged 40, the subject of phthisis, and who had spit much blood. The pleura was thickened below it and at the base of the right side. The cavity contained a partly decolorised clot. The rest of the lung was tubercular.

Dr. Green remarked that it might be a dilatation of the pulmonary artery in a tubercular cavity.

THE CLINICAL SOCIETY.

FRIDAY, FEBRUARY 14.

Sir Thomas Watson, Bart., President, in the Chair.

The following gentlemen were elected Members of the Society:—Dr. Christian Baumler; Dr. John Cavafy; Mr. J. T. Clover; Dr. H. H. Cracknell; Mr. F. J. Gant; Dr. S. J. Gee; Mr. J. G. Glover; Dr. T. H. Green; Mr. T. B. Hay; Mr. T. H. Hill; Dr. J. C. Langmore; Mr. F. H. Marsh; Dr. Alfred Meadows; Mr. A. B. R. Myers; Mr. C. Prentis; Dr. A. Wiltshire; Dr. A. Rasch; Dr. S. Sutro; Mr. E. Venning; Dr. H. Sanderson; Mr. Spencer Wells.

Dr. Greenhow communicated four cases of

INTERMITTENT OR PAROXYSMAL HÆMATURIA.

The first case was that of a man aged 31, who had had seven attacks, all of which had occurred during the preceding fifteen months. The patient was admitted into the Hospital on September 17 last. His skin was cold and slightly jaundiced; he complained of pain in the loins. The urine passed shortly after admission was of normal specific gravity, porter-coloured, yellow and chocolate-coloured precipitate when heated, and was found on microscopical examination to contain crystals of oxalate of lime and coloured granules, most of which were free, while others were contained in hyaline cysts; after a few hours the colour had entirely disappeared. The urine was pale, and contained a mere trace of albumen. The previous attacks had been of similar duration, and had always come on after exposure to cold or wet; each had been ushered in by shivering, immediately after which the urine, previously natural, became blood-coloured. The treatment consisted in the administration of sulphate of quinine in full doses, which was at first given with the tincture of the perchloride of iron, subsequently with the iodide of potassium and the syrup of the iodide of iron. The other three cases were similar, with the exception that in the second, that of a child of eight years, the hands and feet became swollen and purple during the attacks. In each case the skin had a jaundiced tint. Dr. Greenhow remarked that several English Medical authors had related cases of this disease, which most of them considered to be of malarious origin. This had not, however, occurred in any of his cases, and the same absence of malarious influence had been noted by other Physicians. The disease merely resembled ague in its paroxysmal form, and in its commencement with rigors followed by heat. It differed from ague in not being periodical, and in apparently requiring a fresh exposure to cold or damp to excite each paroxysm. The cause of the disease he had no hesitation in regarding as some formi dyscrasia. The constant presence of oxalat eof lime crystals in the urine during the paroxysm, and their absence, as a rule, at other times, appeared to him very significant. Another fact which seemed worthy of notice was that all his four patients had suffered from so called rheumatic pains during the paroxysms, and the first and fourth at other times also. It was possible that secondary syphilis might have something to do with their occurrence in these two cases, but Dr. Prout had remarked the frequent coexistence of chronic rheumatism with oxalic acid diathesis, and the sallow skin of all Dr. Greenhow's patients was not unlike that attributed by Dr. Prout to the same diathesis. At the conclusion of Dr. Greenhow's paper, a report was read by Dr. Pavy of observations made since the last meeting of the Society on the subject of Dr. Greenhow's first case. The patient had been readmitted into the Middlesex Hospital on January 24 for a return of his complaint; and, on the same evening, the President, at Dr. Greenhow's request, had nominated a committee, consisting of Drs. Pavy and Dickinson, to assist him in a renewed investigation of the case. Their report of the symptoms and course of the attack, and of the results of the chemical and microscopical examinations of the urine, agreed in all respects with the account given by Dr. Greenhow. During the attack, the urine was repeatedly examined by the reporters. It was always found that, on the heating of it, a dark orange-coloured precipitate was thrown down, which left the filtrate of the natural colour of urine. The sediment deposited on standing was of a rusty colour, and consisted of fine orange or dark brown granules (some of which were amorphous, while others resembled blood corpuscles), and a few larger masses of the same material. Along with these were crystals of oxalate of lime and hyaline casts, but were also accompanied by serious cerebral symptoms. He pointed out that, even if the clinical history were not so characteristic, the microscopical appearances of the urine, and particularly of the colouring matter it contained, would always make it easy to distinguish between cases of this disease and those in which the urine becomes temporarily sanguineous, as from renal calculus.

Dr. Clarke did not agree with Dr. Greenhow in regarding the disease as of dyscrasic origin, nor could he for a moment admit that the kidney has nothing to do with its pathology. Albuminous urine of high specific gravity containing blood corpuscles, either in their original or in an altered condition, could not, he thought, be the product of a healthy kidney. If he were asked to state what the nature of the organic changes in the organ was, he would say the rigor by which the attack commences indicates sudden suspension of the function of the skin and retention in the blood of excremental matter. On this condition of collapse congestion of the kidneys and interstitial extravasation of blood follow, as the result of which casts and albumen appear in the urine. Dr. Clarke would not for a moment deny that there might be, in patients subject to intermittent hæmaturia, an antecedent condition, indicated by the tendency to oxaluria, which determined the character of the attacks, and might perhaps be called by some a dyscrasia; but what he wished to insist on was that the changes observed in the urine during the attack itself could be much better explained as a result of capillary congestion of the kidney than as the consequence of any temporary alteration of the condition of the circulating fluid. So long as the hæmorrhage is exclusively capillary, there seemed to him to be no difficulty in understanding why the colouring matter of the blood is found in the urine as granular pigment rather than in solution. As regards treatment, he would recommend the exposure of the patient to a warm temperature, such as that of a vapour-bath, as the best means of relieving the renal congestion.

Dr. Church and Dr. Wiltshire referred to some cases bearing on the subject under consideration.

Dr. Dickinson thought it extremely improbable that the disease originated in any renal lesion, or that the state of the urine could be accounted for in the manner suggested by Dr. Clarke. He regarded the whole question as in the highest degree uncertain, but was disposed to surmise that whenever the opportunity for investigating the disease anatomically should occur, lesions would be found, if anywhere, in the liver or spleen.

Dr. Southey narrated a case of

ABSCESS IN OR ABOUT THE KIDNEY.

The patient had previously suffered from stricture with vesical catarrh, subsequently passing pus in albuminous urine. A deep-seated swelling formed in the left loin, which varied in size according to the greater or less quantity of pus present in the urine. Presently a large amount of pus was discharged after the fæces, and the patient began to suffer from extreme exhaustion. The tumour pointed and was punctured; almost five ounces of deeply-seated pus escaped. Later on, symptoms of dysentery caused much suffering, but after a time the discharge became less, and the general health improved. Eventually the opening in the flank closed, and the patient recovered, but the bladder was permanently drawn up towards the left kidney, and there was pain and spasm in micturition. In the absence of any evidence of caries of the spine, or of embolism, or of renal calculus, Dr. Southey concluded that suppuration began in or about the kidney, and the disease was throughout of a local character.

Mr. Sydney Jones referred to a case in which, fourteen days after an operation for lithotomy, a patient became feverish, with some abdominal pain and symptoms of peritonitis. After death the centre of the disease was a large collection of pus and urine connected with calculus in the kidney, and from the irritation of this abscess the peritonitis had its origin. He also remembered a case in which, after a perineal section, pus had been evacuated from the loin as if from the kidney.

Dr. Stewart described a case of hæmaturia with pain in the left loin where a swelling formed, and it was supposed constituted an abscess. After a time, however, the swelling subsided, and it was supposed either that the pus had been absorbed, or that it was discharged through the bowels.

Dr. Andrew Clark read a report of a case of fibroid phthisis, the discussion on which was postponed until the next meeting of the Society. A report of the case will be given with that of the discussion.

OBITUARY.

HUGH HENSHALL BROUGHTON, M.D., M.R.C.P.L., M.R.C.S.E., L.S.A.

We have unhappily had lately to record the deaths of several of the most eminent of our provincial Surgeons, and now, to our deep regret we have to add to the list Hugh Henshall Broughton, M.D., M.R.C.P.L., M.R.C.S. Eng., etc., of Preston, Lancashire. An honour to his Profession, loved and highly valued by friends and acquaintances, he was eminently one of those sterling Englishmen who are the boast and the special strength and lifeblood of our country. With great kindness of heart, he had unflinching integrity of character, indomitable energy, perseverance, and determination. No difficulties daunted him; they were simply opportunities for the fuller display of his best qualities. The greater the obstacle he met with, the greater the vigour and zest with which he attacked it, almost liking it for the pleasure its conquest gave him. Full of knowledge and of resource, quick and accurate in judgment, and prompt and decided in action, he was a most reliable, ready, and valuable help and support in times of need; and his loss will be deeply mourned for by a very numerous and widely spread circle of friends and patients. The following bare outline, all that we can here give, of his life will justify all that we have said of him:—

Born on Christmas-day, 1808, he was educated at Ripon Grammar School, and the knowledge he there gained he never let fade away, but remained a fair classical scholar through life. At the age of 15 he was apprenticed to Mr. Jackson, Surgeon at that time to the General Infirmary, Bolton-le-Moors, and father of the present Mr. T. Carr Jackson, F.R.C.S., of London. Coming up in due course of time to town, he entered as a pupil at the Webb-street School of Medicine, going to Guy's and St. Thomas's for Hospital practice, and in 1830 he took the licence of the Apothecaries' Company. At the same time, and while he still had not perfectly fulfilled all the requirements of the curriculum of the College of Surgeons, he was offered the succession to a death vacancy at Dobcross, Saddleworth; and, failing to persuade the authorities of the College to admit him at once for examination, he began practice in that district, one of the wildest in England, with the single qualification which he already possessed. His talent and force of character soon gained for him a great Medical and Surgical reputation, and extensive practice, the immense labour entailed thereby being inconceivable by any one unacquainted with the district. Nor was his success Professional only, but he won also so high a place in general esteem and repute that, at the age of thirty, he was made a magistrate for the West Riding of Yorkshire—an honour of which he was justly somewhat proud, observing often, with a laugh, that he believed he was "the only mere Apothecary in England who had received that mark of distinction." After practising with increasing fame at Dobcross for nineteen years, he determined on moving to some fairer field for his talents, and in 1849, having taken the degree of M.D. at Aberdeen, he settled in Preston. There, though without a friend or an introduction, he quickly gained a lucrative practice, and established a wide-spread reputation, being called-in in consultation, and as an operating Surgeon, for great distances round Preston. In 1850, when he had been already long and widely known as a bold and brilliant operator, he honoured the College of Surgeons by taking its diploma of Membership, and in 1859 he added to his qualifications the Membership of the Royal College of Physicians of London. Shortly after settling at Preston he was made a magistrate for the county of Lancaster, and it is worthy of note, as characteristic of the man, that he studied law so that he became remarkable for the accuracy of his decisions—one of his most intimate friends, himself a magistrate, remarking that "Broughton is scarcely less distinguished as lawyer than as Physician; when he makes up his mind on a point, he is never wrong."

For many years Dr. Broughton had the saccharine diathesis, though without diuresis, and about 1861, finding his health and strength failing, he came up to town to Mr. Carr Jackson, of whom he was throughout life a most staunch and valuable, as he was a very highly valued, friend, and under his care, and that of Drs. Bence Jones and Brinton, he recovered much of his wonted activity and energy. The pressure of practice, and the lengthy country journeys he was called on to undertake, were, however, too much for him, and during the past year he frequently showed symptoms of great exhaustion; about Christmas last a long journey completely prostrated him, and he took to his bed, never to rise again. A low form of pneumonia set in, and he sank on the 14th inst., in the 60th year of his age.

The incessant demands country practice made on his time forbade his adding much to the literature of the Profession, but he did make time to contribute papers "On the Position of Objects on the Retina," and "On Amputation under Influence of Ether, and Use of Ether in Tetanus," to the *Journal* of the Provincial, now the British, Medical Association, and "On Gay's Operations for Hernia" to the *Lancet*.

His whole life and career form an admirable example for our younger brethren; few men in his "station of life" have been more honoured and esteemed, and will be more lamented, than Dr. Broughton.

NEW BOOKS, WITH SHORT CRITIQUES.

Stone in the Bladder. By Walter J. Coulson, F.R.C.S., Surgeon to St. Peter's Hospital for Stone, and to the Lock Hospital. London: John Churchill and Sons. Pp. 124.

*** These lectures are essentially a commendation of lithotrity after Civiale's method, as opposed to the more dangerous operation of lithotomy. No one will deny that Mr. Coulson is right in the main, but the one operation can never supersede the other. The pages on the prevention of stone and the preventive treatment are very good.

The Diseases of the Prostate: their Pathology and Treatment. By Sir Henry Thompson, F.R.C.S., Surgeon Extraordinary to H.M. the King of the Belgians, Surgeon and Professor of Clinical Surgery University College Hospital, etc. Third edition. London: John Churchill and Sons. Pp. 364.

*** It is unnecessary for us to do more on the present occasion than to congratulate Sir Henry Thompson on the appearance of a new edition of his well-known and invaluable work.

List of the Graduates in Medicine in the University of Edinburgh from 1705 to 1866. Edinburgh: Printed by Neill and Co. Pp. 73.

*** Such a book cannot but be suggestive, could we but know the history of the first and of the last—the diverse fortunes of those here placed side by side—the changes in Medical opinion each successive batch of graduates represent; but all we have is the slight hint as to each man's proclivities obtainable from the title of his thesis.

Die optischen Fehler des Auges. Von J. Z. Laurence, F.R.C.S., M.B., etc. Uebersetzt von Dr. August Karst, praktischer Arzt zu Kreuznach. The Optical Defects of the Eye. By J. Z. Laurence, M.B., F.R.C.S. Translated into German by Dr. A. Karst, Physician, Kreuznach. Kreuznach: Voightlander. Pp. 163.

*** Mr. Laurence's valuable work has met with a worthy translator in Dr. Karst, and will doubtless become as popular in Germany as in England.

The Diagnosis, Pathology, and Treatment of Diseases of Women. By Graily Hewitt, M.D., F.R.C.P., Professor of Midwifery and Diseases of Women, University College, and Obstetric Physician to the Hospital, etc., etc. Second edition. London: Longmans.

*** In the former edition of this valuable work, Dr. Hewitt limited himself almost entirely to the diagnosis of the affections of which he treats. He now deals not only with their diagnosis, but with their pathology and treatment also, so that the work may almost be looked upon as a new one; and those who made themselves acquainted with the former edition will not require to be told that the portions now added are of the highest possible excellence. The numerous illustrations are also of great value.

An Epitome of the Venereal Diseases. Designed for the use of Students attending Hospital Out-patient Practice. By Alexander Bruce, M.S., B.Sc., F.R.C.S.E., Assistant Surgeon Westminster Hospital, and Lecturer on Anatomy in the Medical School. London: Lewis. Pp. 28.

*** We think this little work well adapted to supply an often felt want. There is no subject on which students, as a rule, read more; no subject on which they are so ignorant, in fact, they read too much. A guide was wanted to lay the leading facts before them mainly in a plain and intelligible form, to constitute a sort of groundwork whereon to erect a more methodical superstructure. Mr. Bruce has supplied that to our hands.

A Practical Treatise on the Diseases of Children. By Dr. Francis Conlie, M.D., Fellow of the College of Physicians, etc. Sixth Edition. Philadelphia: H. C. Lee. Pp. 783.

*** It is generally pleasing, useless to praise a book when it has reached its sixth edition. Nor shall we on the present occasion do more than give an outline of the contents of a work which appears to us to be one of great practical value. The first chapter, then, Dr. Conlie devotes to a review of the hygiene of infancy, and lays down certain rules which may be observed by the young mother. The next subjects he treats are the peculiarities of circulation and the pathology of the diseases common in childhood. The semeiology of childhood—the countenance, the gestures, sleep, cry, respiration, the tongue and mouth, the skin, the breath, the discharges, and the condition of the bones—are then laid and considered in detail as they contribute to the determination of a correct diagnosis. These subjects are considered in the introductory portion of the work. In the latter part of it the various infantile diseases are discussed, as diseases

of the digestive organs, of the respiratory organs, of the nervous system, of the skin, of the nutritive function, of the urinary organs, and, finally, congenital affections. Although we do not agree with the author on every particular, still we are constrained to say that his work is one of great practical utility.

Transactions of the Odontological Society of Great Britain. Vol. V. 1865-67. London. Pp. 406

*** The present volume of this Society's *Transactions* will appeal not to dentists alone, but to all scientific men. It contains two excellent papers by Mr Ibbetson on Fossil Teeth, splendidly illustrated; another truly scientific study on the Dentition of the Mole by Mr. Spence Bate; one on Local Anæsthesia by Dr. Richardson; along with others equally valuable, but of less general interest, on dentistry in its various departments.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 20th inst.:—

Fentem, Thomas, of Eyam, Derbyshire, diploma of membership dated May 9, 1834
Kirkman, Joseph Thomas, of Horndean, Hampshire, February 24, 1843

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 20, 1868:—

Gould, Henry, Northfleet, Kent.
Hird, James, Pembroke.
Lait, William, Brookfield-lodge, Victoria-park.
Levy, Julius Lawrence, 100, Westbourne-terrace.

The following gentlemen also on the same day passed their First Examination:—

Peacock, Edwin, Queen's College, Birmingham.
Powles, William, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARRATT, J. G., M.D.—Accoucheur to the St George's and St. James's Dispensary

FARR, Dr., of Hemel Hempstead—Certifying Surgeon under the provisions of the Factory Acts for Great Berkhampstead, Herts.

WICKHAM, R. H. B., L.R.C.P. Edin.—Medical Officer to the Royal Asylum for the Insane, Morningside, Edinburgh.

NAVAL AND MILITARY APPOINTMENTS.

DICK, F., M.D., Staff Assistant-Surgeon 76th Regiment—Assistant-Surgeon.

DICKINSON, F. F., M.D., Staff Assistant Surgeon, has been permitted to resign his commission.

DUDLEY, W. E., Assistant Surgeon from the 76th Foot—Staff Assistant Surgeon.

HOME, W., M.D., Deputy Inspector General half-pay—Deputy Inspector-General of Hospitals.

LANGLEY, W. L., M.D., Deputy Inspector General of Hospitals, who retires on half-pay—Honorary rank of Inspector General of Hospitals.

BIRTHS.

BROWN.—On January 10, at Anar-Rullee, Lahore, Punjaub, India, the wife of B. Brown, M.D., of a son.

HARVEY.—On February 21, at 14, Belsize-square, N.W., the wife of F. Harvey, Staff Surgeon R.N., of a daughter.

HENSLEY.—On February 20, at 10, Spring-gardens, S.W., the wife of F. J. Hensley, M.D., of a son.

HILL.—On February 19, at 60, George-street, Portman-square, the wife of F. A. Hill, M.R.C.S., of a daughter.

HUNTER.—On February 15, at Southborough-road, the wife of Dr. G. Y. Hunter, Staff-Surgeon, Zoula, of a son.

MAXWELL.—On February 18, at Stickney, near Boston, Lincolnshire, the wife of P. Maxwell, M.D., of a son.

METCALFE.—On February 22, at 55, Clifton-gardens, the wife of E. Metcalfe, F.R.C.S., of a son.

PRICE.—On February 23, at Margate, the wife of W. Price, M.D., of a son.

SANDERS.—On February 20, at Chigwell, Essex, the wife of Dr. Sanders, of a daughter.

STEVENS.—On February 18, the wife of C. P. Stevens, F.R.C.S.E., of Biggleswade, Beds, of a son.

MARRIAGES.

KING—RANKIN.—On February 25, at the parish church, Great Stambridge, Essex, T. King, M.R.C.S.E., to Louisa, daughter of W. H. Rankin, Esq., of Broom Hills, Great Stambridge, Essex.

MILNE—SANKEY.—On February 20, at St. Andrew's, Cardiff, C. Milne, M.R.C.S., of Wandsworth-road, London, to Elizabeth, youngest daughter of the late S. J. Sankey, Esq., Rainham, Kent. No cards.

WILLIAMS—KERTLAND.—On February 13, at the parish church, Rhyl, by the Rev. H. Morgan, M.A., Dr. K. H. Bold Williams, of Llandudno, to Margaret, widow of the late R. J. Kertland, Esq., of Dublin.

DEATHS.

BRODRIBB, U. P., M.B., B.A., etc., at Retford, Notts, on February 20, aged 35.

CHARTERS, W. T., M.D., late H.E.I.C.S., at the Grove, Trinity, Edinburgh, on January 26.

CRANE, F. C., M.D., at 29, Sussex-street, Warwick-square, on February 24, aged 77.

FERGUSON, G., M.B. Lond., F.R.C.S.E., at 21, Giltspur-street, E.C., on February 25, aged 31.

MOLYNEUX, S., M.R.C.S.E., at the Abbey, near Wigan, on February 1, aged 55.

MOORE, E. D., M.R.C.S.E., L.R.C.P.E., late of Buxton, Derbyshire, and formerly of 10, Arlington-street, Piccadilly, at the Hill House, Dursley, Gloucestershire, on February 22.

OUTHWAITE, J., M.D., at Park-house, High Harrogate, on February 15, aged 75.

RAY, E., M.D., F.R.C.S.E., at Dulwich, on February 22, aged 51.

VACANCIES.

BRITISH MUSEUM.—Dr. George Swiney's Lecturer on Geology.

CITY OF LONDON LUNATIC ASYLUM, STONE, NEAR DARTFORD.—Assistant Medical Officer.

POPLAR UNION.—Two Dispensers.

ROYAL ACADEMY OF ARTS.—Professor of Anatomy.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Derby Union.—Mr Hamilton has resigned the North District; area 1700; population 25,525; salary £80 per annum.

Neath Union.—Mr. Watkin Rhys has resigned the Second Central District; population 4194; salary £30 per annum.

APPOINTMENTS.

Barnet Union.—James Wookey, M.R.C.S.E., L.S.A., to the Second District.

Battle Union.—Thomas Baker, L.R.C.P. Edin., M.R.C.S.E., L.S.A., to the Fifth and Seventh Districts.

Biggleswade Union.—Alexander F. Fisher, M.R.C.S.E., L.S.A., to the Stotfold District.

Boston Union.—Benjamin A. Smith, M.R.C.S.E., L.S.A., to the Sibsey District.

Hastings Union.—Charles Ashenden, M.R.C.S.E., L.S.A., to the First District and the Workhouse.

Stow Union.—William H. Short, L.R.C.P. Edin., L.F.P. and S. Glas., L.S.A., to the Sixth District.

Tewkesbury Union.—Daniel Devereux, L.R.C.P. Lond., M.R.C.S.E., L.S.A., to the Forthampton District.

Toxteth Park Township.—Albert E. Carter, L.R.C.S. Ire., L.R.C.P. Edin., Assistant Medical Officer for the Workhouse.

UNIVERSITY INTELLIGENCE.—OXFORD: BURDETT-COUTTS GEOLOGICAL SCHOLARSHIP.—The examiners for this scholarship, Professor Phillips, Professor Brodie, and E. Chapman, M.A., have given notice that their examination for the purpose of electing a scholar on that foundation will be held in the University Museum, on March 2 and following days, commencing at 9.30 a.m. Candidates must have passed all the examinations for the B.A. degree, and must not have exceeded their 27th term.

UNIVERSITY OF DUBLIN.—At the spring commencements, held on Shrove Tuesday, the 25th inst., in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred by the Right Hon. Sir Joseph Napier, Bart., Vice-Chancellor of the University:—*Baccalaurei in Medicinâ:* Thomas Whiteside Hime, Josephus Lawson, Arthurus Vernon Macan, Robertus M'Morran, Jacobus Franciscus Ryan, Alexander Haldane Stokes, and Josephus Manly Tabuteau. *Magistri in Chirurgiâ:* Fredericus Ferdinandus Hill, Henricus Harris Langstaff, Arthurus Vernon Macan, Jacobus Franciscus Ryan, Alexander Haldane Stokes, and Johannes Todhunter. *Doctores in Medicinâ:* Robertus M'Morran and Horatius Scott. The petition, which, but for the resignation of Lord Derby, would have been presented on Tuesday evening to both Houses of Parliament, praying for the maintenance in its integrity of the Protestant constitution of the University of Dublin, received in the course of a few days 6632 signatures. Of these 4235 are the signatures of graduates, the remaining 2399 being those of non-graduates, but all persons of the highest respectability and influence. The following analysis of the signatures will show how important is this protest against any attempt to alter the original religious constitution of the University or impair its efficiency. The petition has been signed by 17 noblemen and noblemen's sons, 31 baronets and knights, 34 Church dignitaries, 17 Queen's Counsel, 2079

clergymen, 113 lieutenants and deputy-lieutenants of counties, 707 magistrates, 345 Physicians and Surgeons, 324 barristers and solicitors, and 2909 others, including landed proprietors, land agents, bankers, merchants, military and naval officers, civil engineers, etc.

HER MAJESTY the Queen has been graciously pleased to present to the Hospital for Women, Soho-square, through Sir William Jenner, Bart., M.D., F.R.S., a copy of "Leaves from the Journal of our Life in the Highlands." The flyleaf bears the following inscription and autograph—"Presented to the Hospital for Women by Victoria R." In accordance with her Majesty's wish, the volume has been placed in the library of the Hospital for the use of the patients.

PRINCE LEOPOLD has presented to Dr. W. C. Hoffmeister, who was in constant attendance upon him during his late illness, a gold ring.

SIR WILLIAM JENNER.—The following is the announcement of the baronetcy conferred on Dr. Jenner from the *London Gazette*:—"Whitehall, February 22. The Queen has been pleased to direct letters patent to be passed under the Great Seal granting the dignity of a baronet of the United Kingdom of Great Britain and Ireland unto William Jenner, of Harley-street, Cavendish-square, in the parish of St. Marylebone, and county of Middlesex, Doctor of Medicine, one of Her Majesty's Physicians-in-Ordinary, and the heirs male of his body lawfully begotten."

POOR-LAW INSPECTOR.—The Poor-law Board has appointed Lieutenant-Colonel F. Beckford Ward, late R.A., in the place of Sir John Walsham, Bart., who has resigned.

MANCHESTER OFFICERSHIP OF HEALTH.—It is reported that Manchester, which—strangely enough—has been hitherto without an Officer of Health, will soon be placed in this respect on an equality with other large towns.

MEDICAL SOCIETY OF LONDON.—On Monday next, at 7 p.m., the election of officers and council for the ensuing year takes place, after which Mr. William Adams will read a paper on "The Treatment of Wounds upon Antiseptic and Subcutaneous Principles."

THE HUNTERIAN ORATION.—Mr. Richard Quain, F.R.S., the senior Vice-President of the College of Surgeons, has just been appointed the orator for 1869, when, in all probability, he will also fill the President's chair.

ROYAL ACADEMY.—Professor Partridge, of King's College, commenced his course of lectures on Anatomy before the students of the above institution on the 10th inst. The lectures are delivered at eight o'clock every Monday evening until the 16th proximo.

ACADÉMIE DE MÉDECINE DE PARIS.—M. Davaine has just been elected into the Section of Therapeutics and Medical Natural History by the votes of forty-two of the seventy-nine members who were present.

ACADEMIE DES SCIENCES.—M. Laugier has been elected into the Section of Medicine and Surgery in place of the late Professor Velpeau, by the votes of forty out of fifty-eight members present; M. Jules Guérin had the next highest number.

DR. EHRENBERG.—This distinguished Prussian naturalist, whose microscopical observations are of world-wide celebrity, has recently had a successful operation for cataract performed by his friend, Professor von Graefe.

WE regret to observe the deaths of Miss Jones, daughter of the late Colonel Jones, the Lady Superintendent of the Nightingale nurses in the Liverpool Workhouse Hospital, and of Sister Martha, attached to the Chorlton Union Hospital. Both ladies died from typhus, caught in the discharge of their duties.

METROPOLITAN POOR.—It appears that the estimated cost of the sites to be purchased by the managers of the Metropolitan Asylum District for the erection of buildings for the sick poor, etc., is likely to be covered by a rate of not more than one-eighth of a penny in the pound during the current half-year.

UNIVERSITY COLLEGE HOSPITAL DINNER.—A dinner in aid of the funds of this Hospital took place at Willis's Rooms on Tuesday evening. The Duke of Cleveland, K.G., presided. He was supported by a numerous company of noblemen and gentlemen. The following members of the past and present Medical Staff of the Hospital were present:—Drs. Hare, Russell Reynolds, Grailly Hewitt, Wilson Fox, and Messrs. Erichsen, Marshall, and Christopher Heath. The handsome sum of £1700 was collected on behalf of the funds of this excellent institution.

THE FEVER AT TERLING.—The Fever Hospital at Terling is open for the reception of fresh cases; it has several within its walls. The disinfection with carbolic acid is going on in a more satisfactory manner; but all are in dread of the approach of mild weather, for all feel convinced how much time has been lost, and how little the cause of the plague has been removed. Another servant man has died at Terling-place since our last report, making in all a total of eight deaths amongst those employed by Lord Rayleigh. Forty deaths have now taken place. The drainage of the village has been ordered to commence forthwith. Government seem now to be doing what it ought to have done in the first place—it is taking the matter entirely out of the hands of the local authorities.

CASES of fever are becoming of frequent occurrence among the troops at Portsmouth, chiefly in the 11th Depot Battalion at Gosport. In some instances we hear that serious symptoms of meningitis have occurred. The case of febris purpurea maligna, which occurred there last week, terminated fatally after fifteen hours' illness. Another death from this disease has occurred in the Royal Barracks, Dublin, where, on the whole, there have been four cases and two deaths.

EXPENSIVE MEDICINES.—The Poor-law Board, by a circular in April, 1865, recommended guardians to alter Medical contracts as opportunity occurred by excepting from them the supply of cod-liver oil, quinine, and other expensive medicines, and providing these at their own expense in the same way as wine and other extras recommended by the Medical officers in the way of nourishment. A Poor-law Board return, dated November 26, states that replies received by the Boards of Guardians in England and Wales, not including the metropolis, showed that in 401 unions the guardians have acted wholly or partially on this recommendation, and that in 225 unions they have not acted upon it.

LORD H. SEYMOUR'S WILL.—On Saturday a number of solicitors connected with the London charities attended before Mr. Marshall, the Chief Clerk at the Rolls Chambers, to make claims to share in the large bequest of Lord Henry Seymour to the London charities. Out of 172 claims by Hospital and other institutions only thirty-one were admitted by the Master of the Rolls under the term "hospice" mentioned in the will. The Hospitals had appealed to the Lords Justices, and their Lordships held that all places where patients were admitted to reside would come within the denomination of "hospice." The case was sent back to the Rolls for the certificate to be varied, and the first sitting took place on the present occasion. Some cases were reserved for further consideration. Mr. Greatorex appeared for the charities admitted in the first schedule. The Chief Clerk gave directions on the matter to facilitate the distribution. There would be no appeal to the House of Lords.

THE DARWINIAN HYPOTHESIS.—M. Milne Edwards, in his elaborate and valuable report on the recent progress of the zoological science, just published by the French Government among the series of reports on the progress of letters and science in France during the present century, thus incidentally expresses his opinion on Mr. Darwin's hypothesis:—"Mr. Darwin's hypothesis does not seem to me to be of a nature to remove any of the difficulties relating to the origin of species, and I am of opinion that in science it is always an unfortunate procedure to mark our ignorance by pretended explanations which in reality explain nothing."

A PAUPER NURSE.—A disaster, caused by the negligence and inefficiency of a pauper nurse, is reported from the Erdington Union. The circumstances are shortly as follows:—Three female paupers suffering from itch were placed in a separate ward, and, in the absence of the regular—or rather irregular—nurse, were placed under the charge of one of the inmates. This woman went to the surgery, and brought a quantity of carbolic acid, which she had mistaken for a mixture of sulphur and lime. With this she smeared the three patients, the consequence being that two of them were seized with the most agonising pains; and one of them "was taken in a fit." The extemporised nurse became alarmed, and Medical assistance was called in. One of the sufferers died in five hours, another in two days, and the third is now slowly recovering. An inquest has been held, and the usual convenient varnish in the shape of a verdict of accidental death was returned. But, we would ask, under what circumstances was an ignorant pauper nurse permitted to go to the surgery and help herself to dangerous drugs? What but accidents must occur if a pauper is permitted to be at the same time nurse and dis-

penser? For the employment of a pauper in the capacity of nurse the parochial authorities are undoubtedly to blame, and we hope that the Poor-law Board will institute a full inquiry into the matter.

ANTIMONY SCARIFICATIONS.—M. Pigeolet, of Brussels, states that of all means for producing an effective and properly localised revulsion, he finds the best to be the employment of a scarificator, and then rubbing into the scarifications so made tartar emetic ointment composed of from one-eighth to a quarter its weight of antimony. He has found especial advantage from the procedure in neuralgias, and particularly in sciatica. In cases of this affection he has sometimes made as many as thirty scarifications, and at others advantageously combined the practice with hypodermic injection of morphia. The mode of revulsion is, however, useful under very various circumstances: it is certain in its production, and capable of due regulation.—*Journal de Méd. de Bruxelles*, October.

TREATMENT OF SHOULDER PRESENTATION BY POSITION.—On the strength of two cases that have occurred in his own practice, Dr. Maxson strongly recommends to the notice of the Profession the adoption of Dr. Thomas's postural treatment of prolapsed funis in cases of shoulder presentation. He thus describes one of his successful cases, in which the waters had been discharged before he saw the patient:—"I had her on her knees, on pillows, upon the bed, so as to raise her hips up well, her chest and face lying flat on the bed, fetching the back at an angle with it of about 45 degrees—the knees being a little apart. I then passed in my hand, and with scarcely an effort crowded back, and of course, in her position, down, the shoulder, and, slipping my hand between the brim of the pelvis and the fœtal head, I spread out my fingers and brought or directed it, during a pain, to the superior strait. Retaining the grasp, I made her turn her hips carefully down upon the left side of the bed, when, after a pain or two, the head engaged in the superior strait, and we had a perfectly natural presentation, without having used the least violence, or apparently caused any uneasiness to the patient, and all accomplished, I should judge, within from five to ten minutes."—*Boston Journal*, January 23.

TEMPORARY BLINDNESS IN SCARLATINA AND TYPHUS.—Dr. Ebert related to the Berlin Medical Society a case of typhus and three cases of nephritic scarlatina, in which complete blindness suddenly occurred, vision being completely restored in a day or two. He believes it to be dependent upon temporary interstitial œdema of the intracranial of the nerve, consequent upon impoverished condition of the blood. The conclusions he comes to are:—1. There are cases of acute disease accompanied by blood-poisoning and blood-impoverishment, in which the sense of sight is temporarily abolished. 2. The blindness lasts from twenty to sixty hours, and appears never to exceed three days. 3. These cases admit of a very favourable prognosis. 4. When the ophthalmoscope shows the retina to be intact, we may promise with confidence that the blindness will cease in two or three days. Professor von Graefe observed that the true ground of so favourable a prognosis in these cases is to be found in the fact that, in spite of the absolute blindness, the pupil still continues sensible to the action of light. The negative ophthalmoscopic appearances alone do not suffice, for weeks may elapse without any change being apparent in cases which eventually exhibit plainly atrophy of the papilla.—*Berlin Klin. Woch.*, No. 2.

INAUGURAL BANQUET OF THE LORD MAYOR OF DUBLIN.—On Tuesday evening, the 25th inst., the Right Honourable William Carroll, M.D, gave his inaugural banquet, on a scale of great splendour, at the Mansion House, Dublin. On this occasion both the large round building erected in the year 1821 for the purpose of entertaining his Majesty King George IV., and since known as the "King's Room," and the Oak Room of the Mansion House were crowded with guests, among whom, it is needless to say, the Medical Profession was most fully represented. On the dais sat the President and Vice-President of the King and Queen's College of Physicians, Drs. Churchill and Gordon; the President and Vice-President of the Royal College of Surgeons, Drs. Robert Adams and George Porter; the Regius Professor of Physic in the University, Dr. Stokes; the Governor of the Apothecaries' Hall, Dr. Wyse; Sir William Wilde, and others; while a very large number of the rank and file of the Profession were seated through the rooms. Among the other guests present were his Excellency the Marquis of Abercorn, K.G., Lord Lieutenant; his Grace the Archbishop of Dublin; Lord Strathnairn, commanding the forces in Ireland; the Earls of Howth and Charlemont, Lords Dunboyne, Claude J. Hamilton, M.P., and James Butler; the Right Honourables the Lords Chief Justices of the Queen's Bench and Common Pleas; the Right Honourables Sir Joseph Napier, Bart., Judge Keatinge, Maziere Brady, the Vice-Chancellor, and the Master of the Rolls; Sir Percy Nugent, Bart.; Sir Richard Griffith, Bart.; Major-General Sir Thomas Larcom, K.C.B.; Sir James Power, Bart., M.P.; Sir John Marcus Stewart, Bart.; Serjeant Armstrong, M.P.; the Solicitor-General, the High Sheriff, the Recorder of Dublin, etc. The toast of "the Medical Profession" was responded to by Dr. Churchill, President of the College of Physicians, in most appropriate terms.

SNAKE POISON.—The *New York Medical Journal* (one of the best, by the bye, published on the American Continent) for January contains a valuable article on rattlesnake venom by Dr. S. Weir Mitchell, one of the best known and most highly esteemed of American observers. This is not his first contribution on the subject, for in 1860 an elaborate paper on the rattlesnake poison appeared in the Smithsonian Reports. We have not space to follow Dr. Mitchell through all the long course of his experiments, but we append his conclusions, premising that pigeons were selected as the subjects of experiment, owing to their great susceptibility to the influence of the venom:—"One-fourth of a drop of venom is usually fatal to pigeons under the age of four months. One-eighth of a drop is frequently a fatal dose. Rattlesnake venom is absolutely harmless when swallowed, owing to two causes: First, because it is incapable of passing through the mucous surfaces. Second, because it undergoes some change during digestion, which allows it to enter the blood as a harmless substance, or to escape from the canal in an equally innocent form. Twenty-four hours after the venom has been swallowed, the dejecta of this period and the contents of the bowels contain no poison. The rectum (cloac) of the pigeon does not absorb the venom, and it causes no injury when placed on the conjunctiva of animals. The venom passes through the membranes of the brain, and more swiftly through the peritoneum and the pericardium. When the venom passes through the peritoneum, it so affects the walls of the capillaries as to allow of their rupture, and of the consequent escape of blood. The same phenomena appear on the bare surface of muscles thus poisoned. This influence, together with the defect of coagulability of the poisoned blood, accounts for the excessive hæmorrhage about the fang wounds. The blood globules are physically unaltered in venom poisoning. The rattlesnake is not susceptible of being injured by the venom of its own species. The sulphites or hyposulphites of soda or lime have no antidotal power. Carbolic acid sometimes delays the fatal result, and usually lessens the local hæmorrhage. These effects are due to no influence of the acid on the venom, but rather to a direct effect of the excess of acid upon the local circulation of the envenomed part. Carbolic acid has no value as a true antidote, and when given internally does not affect the ordinary fatal issue." We would remark, *en passant*, that Dr. Mitchell completely demolishes Professor Halford's theory of the cause of death after snake-bite, and shows that the enormous number of masses of germinal matter described by Professor Halford have no actual existence, so far as the rattlesnake is concerned at least. Will none of our physiologists take the matter up? It surely would not be difficult to procure a rabbit bitten by some of the snakes in the Zoological Gardens.

THE Weekly Returns of London for the year 1867, from a summary of which we make the following extracts, contain the births, deaths, and causes of death in a population which is estimated to have been at the middle of that year 3,082,372. This great and unrivalled aggregation of human beings, living in high and low degrees of density, covered a surface of 122 square miles, intersected by the river, which separates 51 square miles, with about three-fourths of the whole population, on its northern bank, from 71 square miles, with the remaining fourth of the inhabitants, on its southern side. Over this area were scattered 46 workhouses, 12 prisons, 4 military and naval asylums, 31 civil Hospitals, 8 military and naval Hospitals, and 19 lunatic asylums. The facts were collected and recorded by 135 registrars. If the rising and falling rate of mortality be taken as the criterion of health, the year 1867 was the healthiest that London has enjoyed since 1860. Through the four years that followed 1860 the annual mortality uninterruptedly rose, and reached 2·653 per cent. in 1864. It then began to decline, and probably the decrease would have continued in 1866 if cholera had not attacked London in that year. In 1867 it was, as has

been stated, 2·298 against an average of 2·436. When the metropolis as a whole is compared with the principal northern towns, its three millions have reason to be satisfied with the position it holds in the mortality tables. If its worst districts, such as St Giles, St. Luke, East London, Whitechapel, St. George-in-the-East, Southwark, are compared with the worst of the English provincial towns, the comparison is not unfavourable, though it is in a much less degree advantageous to the sanitary reputation of London. In Birmingham the death-rate of 1867 was 2·427, in Sheffield 2·467, in Liverpool 2·957, in Newcastle-on-Tyne 3·079, in Manchester 3·140. In Dublin it was 2·706, in Edinburgh nearly the same, in Glasgow 2·854. It has been stated that "nothing but the great quantity of rain that falls in Manchester makes residence within that city tolerable: it washes down the noxious products with which the atmosphere is charged." 164 deaths from injuries caused by horses or vehicles in the streets were recorded in 1867. 10 persons were killed by horses, 3 by carriages, 7 by omnibuses, 17 by cabs, 32 by wagons, 5 by drays, 43 by carts, and 47 by vehicles not described.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Foreign Service.—The Colonial Office, Downing-street. Medical officers very much needed at the present time.

J. C., M.D.—Under the new regulations, you can recover nothing: but as you come under the old, you may perhaps be able to do so. Apply to the Secretary.

L.R.C.P. Lond.—The case was heard before Lord Tenterden—the Royal College of Physicians *versus* Harrison. It was an action for the penalties, at the rate of £5 a month, during which it was alleged that the defendant practised as a Physician in London. The case is too long for publication. The defendant obtained a verdict.

King's College.—The lines to which you allude are from the "Fairy Queen":—

"So prosper'd the sweet lass, her strength alone
Thrust deftly back the dislocated bone;
Then culling curious herbs, of virtue tried,
While her white smock the needful bands supplied,
With many a coil the limb she swathed around,
And nature's strength return'd, nor knew the former wound."

You can consult, with advantage, the "History of Chivalry," by Mills.

ABSOLON *v.* STATHAM.

Further contributions:—

Henry Merryweather, Esq., Sheffield	£1 1 0
David Gilkes, Esq., Londonderry	1 1 0
James Hinds, Esq., Coventry	0 10 6
Joseph Walker, Esq.	1 1 0
Daniel Browning, Esq.	0 10 6
M. Miles, jun., Esq.	1 1 0
J. H. Hatfield, Esq.	1 1 0
George Laurie, Esq.	2 2 0
J. K. Chisholm, Esq., Edinburgh	1 1 0
David Hepburn, Esq., Edinburgh	1 1 0
John Jamieson, Esq., Glasgow	1 1 0
W. T. Bradley, Esq., Chichester	0 10 6
J. B. Fletcher, Esq.	2 2 0
Dr. Fox	1 1 0
Dr. C. P. Croft	1 1 0
Dr. Hardinge	2 2 0
R. E. Stewart, Esq., Liverpool	0 10 6
Fredk. Dobbs, Esq.	1 1 0
Dr. Luhtenberg	1 1 0
Alfred Canton, Esq.	1 1 0
James Robinson, Esq., Rochester	1 1 0

Amount received up to this time £320. Gentlemen who have not yet paid in their promised contributions are requested to be so kind as to forward them without delay to E. Saunders, Esq., 13A, George-street, Hanover-square, London, W., Hon. Treasurer; or Dr. Cholmeley, 40, Russell-square, London, W.C., Hon. Secretary.

The British Lying-in Hospital.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I feel bound to reply to a letter from Maria Firth, a midwife of the British Lying-in Hospital, which appears in your journal of the 22nd inst., more especially as I find that she has widely circulated in the Profession an extended edition of her epistle. With regard to her first statement, that she has in her possession letters "countersigned" by me, in which it is inferred that she has applied forceps, I have simply to state that it is incorrect. I have merely placed my *initials* at the foot of the printed "midwives' orders" for the purpose of enabling the secretary to pay the midwife four shillings for each case. There is no law or regulation which obliges me even to do this, but, inasmuch as forgeries have before been committed by other hospital midwives, the Secretary has been in the habit of demanding it, for his own protection. I have never personally practised any of the midwifery operations at this hospital, and I am ready to make oath to that effect. [illegible] to keep account of the number of cases [illegible] to the Medical Officer of the district. [illegible] that the [illegible] and close contact [illegible] Within [illegible] which the patient brought a complaint against Miss Firth and her friend, for attempting to apply instruments without her previous knowledge, and in the face of urgent entreaties that I might be sent for, I will only refer you and the readers of your journal to my description of the case, which appeared in the *Medical Times and Gazette* on February 1. I conscientiously advised that nothing should be done on the occasion of my first visit. I can produce my private notes untouched, and made on the *same day*, to prove that this was my opinion at the time; moreover, the very fact of the patient having recovered, although not delivered until fourteen hours after my first visit, sufficiently proves that there *was no necessity* for immediate delivery when the midwife first called me. If the patient were sick, it was probably due to the ergot which Miss Firth had administered on her own responsibility, without my sanction or knowledge at the time.

As I have before stated in your journal, I made no promise to return to the case, but gave distinct injunctions that I was to be sent for if the labour did not progress favourably, or the patient became at all exhausted.

Miss H. has told me that the "husband of mis" had been perplexed as soon as she came to fetch me to the case on the second occasion. This fact was observed in my note-book *on the same day*, and the patient herself, with the two women who were present at the time of her delivery, distinctly remember my questioning Miss Firth and her friend upon this point.

I found that at my *second* visit to the patient, I found the position of the fœtal head altered. There is nothing suprising in this after Miss Firth's written statement that, between my first and second visits, Miss Hodges, "with her slender hand, *had reached the child's neck.*" To have accomplished this, her hand *must*, as I suspected at the time, have been introduced high above the brim when the head was movable, and it was, doubtless, on account of this interference, and the *fruitless attempts* to apply the forceps, that the position of the head was altered, and ultimately as it descended became impacted in the inlet. Miss Firth has implied that I stated that the position of the head was altered *after* it became impacted; but the true explanation is what I have now given.

It has been stated that Miss Firth did not *intentionally* conceal the instruments. In answer to this, I may state that after I had delivered the patient, the midwives desired me to drive them to Queen Charlotte's Hospital, in order to call on the matron, from which charity it has since been proved the forceps were borrowed, and nothing was said during the drive about the forceps.

The same day that I was informed that instruments had been used by the midwives, I called with Mr. Leaf upon the patient. She *volunteered*, without any question from me, to complain of the treatment she had received from Miss Firth and Miss Hodges. The following Thursday—a Board day—she came to the Hospital, went before the Board, and made her complaint, and it was agreed that nothing should be done until Miss Firth returned to town, so that the midwife should have every possible advantage. Had the patient not complained of the treatment she had received from the midwives, I should have felt bound to do so in my responsible position as Medical officer. I am sorry to have been obliged to prove the incorrectness of these assertions, but I do so in self-defence.

I am, &c.

HENRY E. EASTLAKE,
Fellow of the College of Physicians, Dublin.

Welbeck-street, Cavendish-square.

*** We can admit no more correspondence on this subject.

Communication of Uterus with Abdomen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I delivered a poor woman the other day of a premature child (eight months) whose intestines protruded up into the umbilical cord for an inch and a half. The cord had to be slit open before the bowel could be returned. The child lived for three days, and at last died from want. The urethra had to be opened before the child could micturate. I may state that peritonitis set in after the bowel was returned, and that it subsided in twenty-four hours. I am, &c. JOHN LIVINGSTON, M.D.

Greenbank-place, Paisley-road, Glasgow, January 24.

Syphilis in Monkeys.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Without believing in the constant or even frequent association of syphilis with phthisis, I think we must all have seen cases in which their connexion is placed beyond a doubt; and I must say I cannot understand how the fact of monkeys being occasionally consumptive at all invalidates this conclusion. But the letter of "Nemo" has at least done good service in eliciting the remarkable statements of Mr. Furneaux Jordan. I was under the impression that syphilitic inoculation had hitherto failed in the lower animals, and should feel grateful for a reference to any documentary evidence to the contrary. But that monkeys are subject to primary syphilitic disease is an assertion so strange, and yet so important as bearing on pathology, that I venture to hope its propounder may favour the Profession with further details. I am, &c. M.D.

Medical Club, 53, Pall-mall, S.W., Feb. 19.

Spontaneous Rupture of the Diaphragm.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As a subscriber, let me offer you the following case, if you think it worthy for publication:—

T. H., age 65, harness maker, had been attended for ten days for debility, having complained of occasional headache, and tightness across the chest, for which poultices, etc., were ordered. He used to get about on a crutch, on account of the right leg being shorter than the left, consequent upon an old fracture. One morning, at 1 a.m., the man died suddenly, giving indications of a sudden pain in the chest. The evening previous he appeared moderately well. On a post mortem being made, a [illegible] was perceptible in the DIAPHRAGM, about the size of two fists put together, which, on examination, proved to be a portion of the transverse colon, with its coverings. The edges of the rent in the diaphragm were jagged and bloody; no adhesions were present. The [illegible] contained about a pint of serous fluid. The heart was in the left [illegible] capsule, and the [illegible] pericardium. The [illegible] were [illegible] the viscera. [illegible] and [illegible] and [illegible] and [illegible] of an old [illegible] and [illegible] I am, &c.

J. J. ADAMS,
Resident Medical Officer, St. Matthew's Workhouse Infirmary, Bethnal-green.

A Child Sucking the Tea-kettle

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—If you think the enclosed worthy a place in your journal, I shall be glad to have it inserted in your next. About ten days ago a woman came rushing in to my surgery, about half past 8 at night, crying bitterly and saying that her dear child was suffocating, and trusted I would do what I could for it. Upon examining the little creature, who appeared to be about 3 years old, I discovered its lips, tongue, fauces all covered with pieces of white skin, and the little thing appeared fast suffocating, when a neighbour made her appearance and asked me what I thought of the child. I said I believed it had swallowed some strong mineral acid or something else quite as burning, and that the child was evidently fast sinking. She informed me that the little child, during the mother's absence, had gone to the fire where the kettle was boiling for tea, and deliberately drunk out of the spout. I said I would do what I could, but I feared it would be of no avail. I at once poured about a teaspoonful of the best sweet oil into the child's mouth, which appeared to give it great relief and made it very sick. I ordered a teaspoonful to be continually put into the mouth, and if it was worse to let me know, as then the only chance would be an operation (tracheotomy). Not hearing anything more, I concluded the child had died, but judge my surprise at the mother bringing the child in the following morning, much better, but very weak and nervous. I ordered it wine and ice occasionally, and good beeftea cold; the child continued daily to improve, and is now quite well.

I am, &c J. WHITEHEAD, M.D.

7, St. James's-road, Holloway, N., February 26.

COMMUNICATIONS have been received from—

Dr. SAMUEL EADON; Mr WARREN DE LA RUE; Mons. TURKOWSKI; Dr. W. HICKMAN; Mr. MUTER; Dr. HERAPATH; FOREIGN SERVICE, Mr E. CHAPMAN; Dr FAYRER; J. C., M.D.; Dr FRASER; Dr GERVIS; Mr T. HOLMES; Dr FARR; Dr. J WHITEHEAD; Mr INGRAM; Mr A. L MACKAY; CONSTANS; Mr. SPEEDY; Dr SYDNEY RINGER, Dr. HUGHLINGS JACKSON; Mr J CHATTO; Dr. J. W. OGLE; Dr BERRELL; Dr B. W RICHARDSON; Mr. F CHURCHILL; Mr. W. R CORNISH; A LOOKER ON; Dr. BEVERIDGE; Mr MOON.

BOOKS RECEIVED—

London University Calendar, 1868—Manchester Medico-Ethical Association Report—Hawksley on the Dry-earth System—Bauer on Joint Diseases—Mitchell on Treatment of the Insane Poor—Reid on Beef and Mutton—New Orleans Journal of Medicine, January—Jenicken on Vaccination—New York Medical Journal—Gazette des Hopitaux—Hanover Square, No 4.

NEWSPAPERS RECEIVED—

Edinburgh Daily Review—Anglo-American Times—Le Mouvement Médicale—L'Union Medicale—Medical Press and Circular

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 22, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Feb 22.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Feb. 22	Temperature of Air (Fahr.) Highest during the Week	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2315	1441	1336	55·2	29·4	42·4	0·16	16
Bristol (City)	167487	35·7	137	75	477	51·5	29·8	41·7	0·44	44
Birmingham (Boro')	352296	45·0	247	171	142	52·0	29·0	40·4	0·66	67
Liverpool (Borough)	500676	98·0	408	290	270	51·1	33·0	41·7	0·53	54
Manchester (City)	366835	81·8	242	208	†195	53·3	27·0	39·7	0·61	62
Salford (Borough)	117162	22·7	102	59	58	50·5	27·1	40·3	0·70	71
Sheffield (Borough)	232462	10·2	167	122	93	50·0	28·0	39·9	0·59	60
Bradford (Borough)	108019	16·4	95	55	53	..	..	..	..	..
Leeds (Borough)	236746	11·0	128	120	106	51·5	24·5	40·7	0·50	51
Hull (Borough)	108269	80·4	72	50	47	..	..	..	..	..
Nwcstl-on-Tyne, do.	127701	23·9	106	68	48	49·0	32·0	39·7	0·59	60
Edinburgh (City)	177039	40·0	142	85	84	50·7	34·0	42·1	0·60	61
Glasgow (City)	449868	88·9	328	262	242	..	..	..	..	..
Dublin (City and some suburbs)	319935	32·8	168	*157	204	54·8	33·2	43·5	0·64	65
Total of 14 large Towns	6391080	34·7	4655	3163	2955	55·2	24·5	41·1	0·55	56
					Week ending Feb 15	Week ending Feb. 15.				
Vienna (City)	(1863) 560000	..	..	..	356	..	..	‡ 37·4	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·903 in. The barometrical reading increased from 30·27 in. at the beginning of the week to 30·40 in. by 10 a.m. on Sunday, February 16; decreased to 29·38 in. by noon on the 19th; increased to 30·02 in. by 9 a.m. on the 20th; decreased to 29·78 in. by 9 a.m. on the 21st; increased to 29·84 in. by 9 p.m. on the same day; decreased to 29·61 in. by noon on the 22nd; and was 29·61 in. at the end of the week.

The general direction of the wind was S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 40·9.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 22, 1868.

BIRTHS.

Births of Boys, 1159; Girls, 1156; Total, 2315.
Average of 10 corresponding weeks, 1858-67, 2046·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	683	653	1336
Average of the ten years 1858-67	727·4	708·4	1435·8
Average corrected to increased population	..	..	1579
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West	463,388	1	6	2	5	14	5	1	..
North	618,210	10	6	8	2	6	11	1	..
Central	378,058	6	1	4	1	2	7	2	1
East	571,158	4	4	9	..	13	7	1	..
South	773,175	5	11	7	3	15	18	4	..
Total	2,803,989	26	28	30	11	50	48	9	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·903 in.
Mean temperature	42·4
Highest point of thermometer	55·2
Lowest point of thermometer	29·4
Mean dew-point temperature	36·8
General direction of wind	S.W.
Whole amount of rain in the week	0·16

APPOINTMENTS FOR THE WEEK.

February 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

March 2. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Inspector-General Lawson, "On Pandemic Waves."

ODONTOLOGICAL SOCIETY, 8 p.m. Meeting

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

3. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Mr. G. Scharf, "On Historical Portraiture."

4. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Dr. Braxton Hicks, "A Case of Cæsarian Section." Mr. Arbury, "A Case of Rupture of the Uterus." Mr. Rowling, "History of the Lying-in Ward at King's College Hospital." And other Papers.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

5. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Dr. Maudsley, "Clinical Illustrations of a variety of Insanity."

ROYAL INSTITUTION, 3 p.m. Mr. G. Scharf, "On Historical Portraiture."

SOUTH LONDON MEDICO-CHIRURGICAL SOCIETY, 8 p.m. Discussion on Dr. Kempthorne's paper, "Notes of Cases and Experiments illustrating the Action of certain Drugs." Mr. J. Z. Laurence, "On Watery Eye."

6. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

ROYAL INSTITUTION, 8 p.m. W. Kingdon Clifford, Esq., B.A. Cantab., "On Some of the Conditions of Mental Development."

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Practical Evening for the Narration of Cases.

PARIS EXHIBITION, 1867.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

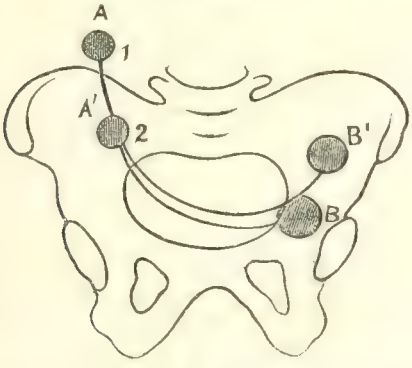
Lecture IX.—Part II.

TURNING CONTINUED.—THE MECHANISM OF SPONTANEOUS VERSION AND OF SPONTANEOUS EVOLUTION FURTHER ILLUSTRATED. THE CONDITIONS REQUISITE FOR SPONTANEOUS VERSION. EXAMPLES OF SPONTANEOUS VERSION BY THE HEAD AND BY THE BREECH.

It is so important, as a guide to the artificial means of extricating a patient from the dangers of shoulder-presentation, to possess accurate ideas of the mechanism of spontaneous version and evolution, that I am led to present a further illustration of these processes.

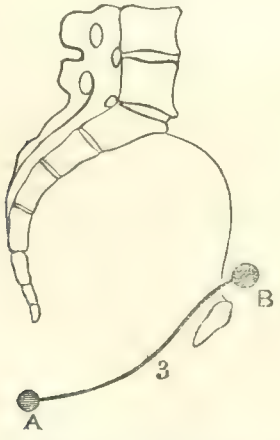
To make the mechanism of spontaneous version clearer, let us represent the child's body by a rod, flexible and elastic, as the spine really is. In Diagram 47, A B 1 is the rod fixed at

Fig. 47.



B by a sort of crutch formed by the head and neck against an edge of the pelvis. A, the breech, being movable, receives the impulse of the force, and is drawn downwards. The rod, or spine, therefore bends. But the rod, being elastic, constantly tends to straighten itself. This effort will, if the head is not immovably fixed, lift the head off the edge of the pelvis, and carry it higher into the iliac fossa. The force continuing to press upon A, as in 2, will drive it still lower, and the rod

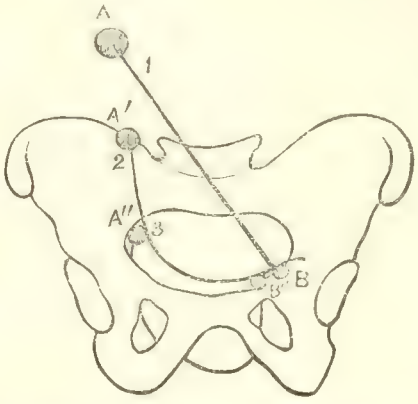
Fig. 48.



still bending, and tending to recover its straightness, the head will rise further from the edge of the pelvis. At last (see Fig. 48) there will be room for the end A to enter the pelvis, and the rod springing into straightness by the escape of A from the pelvis, the whole may emerge, B coming last. For this process to take place, it is obvious that the rod must be endowed with elasticity or spring, and therefore, as Denman said, a live child is best adapted to undergo spontaneous version.

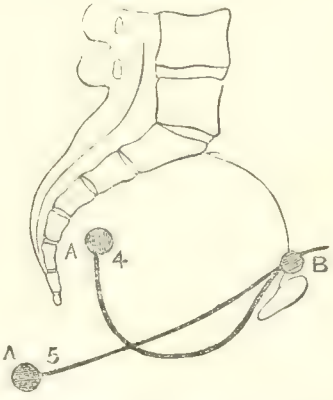
The mechanism of spontaneous evolution may also be illustrated in like manner. Let us represent the child's body by a rod, flexible but almost without elasticity. In Diagram 49,

Fig. 49.



one end of the rod, B, is fixed against the edge of the pelvis; the other end, A, being movable, receives the impulse of the downward force, and is driven first to 2; the rod continuing to bend, A falls to 3, and, as B is fixed, the rod forms a strong curve, with its convexity downwards, in the cavity of the pelvis. This convexity will be the first part of the rod to emerge. The force urging on the end A, more and more of the convex rod will emerge, until A itself escapes. Then, and not till then, can the rod recover its straightness, and the end B will follow. See Diagram 50.

Fig. 50.



In the case of spontaneous version, as well as in that of spontaneous evolution, it is necessary to exhibit first a pelvis seen from the front, then a section as seen from the side, because in the earlier stages the movement is across the pelvis, and in the later stages the head comes forward above the symphysis, and the movement in a circle around this centre is from behind forwards.

Now we may ask: What are the conditions required for the execution of spontaneous version, or natural turning? Some of them, probably, are not understood. Certain it is that we are hardly yet in a position to predicate in any given case of shoulder-presentation, seen at an early stage, that spontaneous version will take place, as we might be if all those conditions were known and recognisable. They would be more familiar if the law to turn were not laid down in such imperative terms—if the dread of evil as the consequence of neglect of that law were not so overwhelming. But if Nature be always superseded, if the Physician always resort to artificial turning as soon as he detects a shoulder presenting, how can we obtain sufficient opportunities for discovering the resources of Nature, and how she acts in turning them to account? The principal conditions

seem, however, to be these: 1. *A live child*, or one so recently dead that the tone or resiliency of its spine is still perfect. 2. A certain degree of *mobility of the child* in utero. 3. Strong action of the uterus and auxiliary muscles. A roomy pelvis does not appear to be always necessary.

Spontaneous version is not likely to take place when the shoulder has been driven down in a point with a part of the chest-wall low in the pelvis, and the uterus is strongly grasping the fœtus in every part, bending its long axis by approximating the head and breech. It is not likely to take place when the head has advanced towards a position above the symphysis pubis—that is, when the movemement of rotation has commenced.

But the practical question will arise, Is spontaneous version ever so likely to occur that we shall be justified in trusting to Nature? Ample experience justifies an answer in the affirmative. But it appears to me that the great lesson taught by the observation of the phenomena of spontaneous version is this: If Nature can by her unaided powers accomplish this most desirable end, we may by careful study and appropriate manipulation assist her in the task. We shall be the better ministers to Nature in her difficulties as we are the better and humbler interpreters of her ways. *Natura enim non nisi parendo vincitur.*

It has been already stated that spontaneous version may take place either by the head or by the pelvis. It may be interesting to cite further examples of either process occurring under the observation of competent Practitioners. I will first give an example of spontaneous turning by the head.

Velpeau(a) relates the following case of cephalic version. A woman was in labour at the École de Médecine (1825). The os was little dilated. The left shoulder was recognised. The waters escaped five hours after this examination. Four students recognised the shoulder. The pains were neither strong nor frequent; and "*being not without confidence in Denman*," Velpeau did not search for the feet. In five hours later the shoulder was sensibly thrown to the left iliac fossa. The pains increased, and the head occupied the pelvic brim. The vertex came down, and the labour ended naturally.

Dr. E. Copeman, of Norwich, records the following case: (b) Some time after the waters had escaped in great quantity, the child was found lying across the pelvis, with the back presenting: neither shoulders nor hips could be felt. At a later period, preparing to turn, Dr. C. was surprised to find the pelvis filled. He endeavoured to pass his hand over the right side of the child towards the pubes, but in so doing he felt the child recede, and therefore confined himself to raising the child's pelvis with his flat hand and fingers; whilst the pains forced down the occiput, the head descended, and delivery was quickly completed. Dr. C. thinks, if he had waited a little longer, spontaneous evolution would have occurred, and the child would have been born even without manual interference. The child was a full-grown male, lively and vigorous.

Here is a remarkably clear case of spontaneous version by the pelvis. Dr. H. Scholefield Johnson, of Congleton, communicated to Dr. Murphy(c) the following history:—Attending a patient in her first labour, he diagnosed a head-presentation in the third position. At this time the os uteri was somewhat larger than a crown-piece, and the membranes were unbroken. No further examination was made until the liquor amnii had escaped, when the os uteri was found three parts dilated and the breech presenting. The funis also descended, The child was nearly still-born, but was restored; it had a swelling on the upper part of the left parietal bone extending towards the occipital, thus confirming the first diagnosis of head-presentation. In reply to questions addressed to Dr. Johnson, he informs me that the child was of full size and healthy; that the liquor amnii was not remarkably above the usual quantity, and that he does not think any external pressure was concerned in the production of the version. Here is another case, equally instructive, communicated to me by the same gentleman:—"In December last (1862), I had a labour. I found a compound presentation. I felt both feet with the backs of the legs towards the left sacro-iliac synchondrosis the right hand with the palm lying in front of the right ankle, a small loop of funis anterior to the wrist. Above the os I could feel the head, but could not make out the part. I waited for the membranes to burst. The feet descended lower, and [illegible] of my reach. I brought down the feet and delivered. When the child was born, I carefully examined it. The right hand was slightly swelled, and there was a distinct swelling (gone the next day) on the right side of the head and up the right margin of the anterior fontanelle. Now, I do not doubt, if I had come to this case later, I should have only found a footling case."

[illegible] Science. 1863.

LECTURES ON EXPERIMENTAL AND PRACTICAL MEDICINE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

ON THE VAPORISATION AND CONDENSATION OF NARCOTIC VAPOURS.

(*Continued from page* 199.)

RELATION OF TEMPERATURE TO ANÆSTHESIA.

AT a future period I will lay before you a table showing the relations of temperature to the tension of vapours and to vaporisation, as deduced from the observations made with Dr. Versman's vaporimeter; but before I do so, let us turn, in a preliminary way, to animal organisms, and ask the question—Are they, when they are exposed to vapours, influenced by the changes of temperature which act on the vapours? If they are, then the inference is fair—I had almost said certain—that the administration of a vapour may be so well understood that the symptoms induced shall be determined to a large extent by the will of the operator. The questions before us are twofold. Will moderate fluctuations of heat and of cold—such fluctuations, for example, as occur naturally in our own climate—influence the progress and character of the symptoms of ordinary anæsthesia? Do we ever become conversant with such influences when we are administering anæsthetics? We shall best proceed to our answers by experiment. Here is a large glass chamber for receiving an animal. At its upper part is a canvas screen on perforated zinc for holding chloroform. At the lower part, beneath a perforated stage, is a space for a cooling mixture, through which pass the tubes to convey air into the chamber. By this means we can bring the air of the chamber down to 40° Fahr. with great ease. We have the air here thus reduced, and having placed a pigeon within the chamber, we pour in chloroform, forty grains, at the upper opening of the chamber, and allow it to spread over the canvas surface. At this temperature it will require an interval of from six to eight minutes, varying somewhat according to the quantity of water vapour in the chamber for sufficient chloroform to diffuse into the air and into the blood to produce insensibility. You will observe, too, that the symptoms of narcotism are not only long, but troublesome also: the animal is greatly excited, and it vomits freely; it shivers after the vomiting, and seems to recover, and then passes a second time into the second degree of narcotism. At last it sleeps. These same symptoms we constantly see in the human subject, and I have heard them called idiosyncrasies. Let us test them, and see how they are otherwise explained. This animal is at last narcotised; it has been nearly seven minutes getting off; and if we continue to keep it down to this low temperature, although it be exposed to air altogether pure and removed from chloroform, it will not recover for fifteen minutes or more, it will show excitement during recovery, and it will probably vomit.

To carry out our test, we will change the condition of the chamber; we will remove the cooling surface and put in its place a warming surface; we will make a fresh stage for chloroform, and we will wash out the chamber of all vapour of chloroform. Our arrangements thus made, we will wait until the thermometer tells us the temperature within the chamber is 80° Fahr.; then we will introduce an animal, a pigeon of the same size and weight, as in the last experiment. The difference in action is most remarkable: there is now no excitement, no vomiting, no waste of time; but in the short interval of two minutes there is gentle sleep, lapsing at once into deep anæsthesia. In short, the second degree of narcotism is passed over altogether, and the difference is as great between the action of chloroform administered at this temperature from the administration at the lower temperature, as it is between the action of chloroform and the lighter bichloride of methylene at the same temperatures.

In the higher temperature the narcotised animal has passed into insensibility with wonderful rapidity; but this is not the [illegible] You see now that the animal is being re[illegible]

with as much of rapidity as the animal in the lower temperature recovers with slowness. Here it is, in fact, awake again, with no recurring second stage of excitement, and with no vomiting. For because the fluid diffused quickly into the air and reached the blood of the animal in a raised atmosphere, so it condensed the more quickly in the blood stream, acted more quickly on the centres of sensibility, and escaped the more quickly by all the eliminating channels through which it finds exit from the organism.

There is only one objection to this experiment, and that objection, fortunately, can be met. It may be urged that the differences of phenomena we have witnessed are due to differences in the animals operated upon. The objection is removed at once by the fact that when the same animals have themselves been placed under chloroform under the differing conditions of temperatures, the variations in the phenomena are as determinate as when different animals are narcotised. If to morrow I take the pigeon that just now slept so quickly in the warm chamber and place it in the cold chamber, it will present the same prolonged phenomena as the animal did which we placed in the cold chamber, while this latter placed in the warm chamber will in its turn become narcotised with the same ease as the other did to-day in the warm chamber. Thus there is nothing in the animal itself to cause so great a difference of action as that we have observed; the cause of difference is in the chamber—that is to say, in the temperature of the chamber.

We may apply these experimental truths with singular force to practice. On a cold day in a cold room, and especially on a day damp as well as cold, we see, in putting patients to sleep with chloroform, the whole of the symptoms, as we have seen them at this time, fully manifested. We also in warm dry rooms see patients pass as quickly and easily into sleep as the pigeon in this warm chamber. Now we know the reason of these different states, and can avoid those which are disagreeably tedious by the simple expedient of conducting every administration at a proper temperature. For chloroform, a temperature of 70° Fahr. is good, and all below 65° decidedly bad. Bichloride of methylene can be administered at 60° Fahr, but it should never be used below 55°. Ether, owing to its lesser vapour density, may be used at a lower temperature than bichloride of methylene; but tetrachloride of carbon should have even a higher temperature for inhalation than chloroform, and I am not going too far in saying it is possible to produce uniformity of symptom from these various substances, if in each case the temperature be arranged so as to meet the special requirements of each substance.

I have observed another interesting series of similar facts relating to the administration, by inhalation, of certain volatile substances which are rather to be considered as intoxicating agents than as anæsthetics. Here are three fluids, all of them alcohols — viz., methylic, ethylic, and amylic—in common phraseology, naphtha, or wood spirit; common alcohol, or grain spirit; and fusel oil, or potato spirit. These alcohols differ in respect to their chemical and physical characters in the following manner :—

	Composition.	Boiling point.	Vapour density.
Methylic alcohol .	$C\ H_4\ O$	151°	16
Ethylic alcohol .	$C_2H_6\ O$	172°	23
Amylic alcohol .	$C_5H_{12}O$	270°	44

All these will evaporate spontaneously at common temperatures, and their vapours when inhaled will produce intoxication. I take three chambers of similar size, and at the same temperature I introduce an equal weight of each alcohol on a surface in each case the same in structure and extent. Into the chambers thus arranged three guinea pigs or other small animals are introduced, one into each chamber at the same time. The animals will become intoxicated, under these circumstances, in very different periods. If the animal in the methylic alcohol vapour be insensible in half an hour, that in ethylic alcohol will be insensible in an hour and five minutes, or a little longer, while that exposed to amylic alcohol will go on to even two hours ere the intoxication is perfect. The time of intoxication will thus vary with the liquid undergoing transformation into vapour, and in like manner, the temperature being the same, the time of recovery will vary, but in a more extreme degree. For if the animal intoxicated with methylic alcohol vapour recovers in the open air in four hours, that intoxicated with the ethylic alcohol will not recover for seven or even eight hours, while that intoxicated with the methylic vapour will lie in an almost hopeless state for sixteen hours. It will not suffer the least pain, but its animal heat will be reduced seven and even eight degrees; it will have all the shiverings and rigors incident always to recovery from what is mildly called "a drop too much," and for a day or two later it will be colder than is natural, and more depressed. These phenomena are what are presented when the temperature all through and in each case has been equally sustained. But, again, the most distinct series of changes can be brought about by altering the temperature. If the animal in the methylic vapour be made to inhale at 45°, the animal in ethylic vapour be made to inhale at 60°, and the animal in amylic vapour be made to inhale at 100° Fahr., then the animals will become intoxicated at nearly the same time, within the same hour; and if they are left in pure air, to recover in the same temperatures in which they were narcotised, they will recover, practically, all at the same time. The temperature which directly governed the introduction of the vapour into the animal's body indirectly governed its expulsion. In all the cases the poison was expelled from the body by the direct influence of the animal's own caloric; so, in proportion as it could obtain caloric from the surrounding medium, it was enabled to eliminate the more freely, and so the animal in the warmer air, although charged with the heavier poison, was, by the indirect action of the caloric about it, enabled to extricate itself from intoxication as quickly as its fellows with the lighter burdens.

This observation respecting alcohols leads me to say, in parenthesis, a word respecting the influence of various alcohols on the human body. We all know how differently we are affected by different qualities of wines and spirits, and that irrespectively of quantity. We hardly ever know that from the same alcoholic fluid we shall have the same pleasures or pains, or pleasures and pains, or pains altogether. We take a few glasses of wine to-day, and to-morrow there is no bad result—no headache, no nausea, no coldness, no prostration. We take the same quantity of the same name of wine on another occasion, and all the objectionable symptoms noted above are present. We wonder at the difference, but there is no cause for wonder; we are taking different alcohols in disguise. The light ethylic alcohol of good wine is comparatively harmless; the heavier alcohols of the common wines are comparatively poisonous.

And yet another word, also in parenthesis, respecting the uses of alcoholics in disease. The scientific Physician may, I think, use perhaps all the alcohols with advantage in his treatment of disease; but he ought never to attempt their use except as *alcohols*, the precise nature of which he understands. Does he want a quickly acting stimulant which takes effect rapidly and eliminates rapidly, taking out little force :—he has it in methylic alcohol. Does he want an alcohol that shall create a more lasting effect : —he has it in ethylic alcohol. Does he want to reduce the body, to prostrate it for many hours :—he can do that with amylic alcohol, or butylic, or caproylic. But when he is ordering alcohol by the general loose names of gin, rum, brandy, wine, he has no conception of what he is prescribing, nor of the effect of his prescription.

(*To be continued.*)

A Clinique for Mental Diseases.—The Medical School of the University of Cambridge has taken a step which some of our metropolitan schools would do well to follow; it has established a clinique for the study of mental diseases. Dr. Mackenzie Bacon, the Superintendent of the County Asylum at Fulbourn, lately offered to receive a class at the Asylum once a week for the purpose of clinical study, and to give a more or less systematic course of instruction on the subject of insanity; and we believe that the students have responded in a manner which shows how highly the opportunity thus afforded them of studying mental disease has been appreciated. The University has this great advantage over our London schools—that of close proximity to the Asylum. But this superiority is more apparent than real; an occasional visit to the Asylum is all that would be necessary, and we fancy that this could be readily effected even in the metropolis. Indeed, if we are not mistaken, some arrangement of this sort exists at St. Mary's Hospital, the students under Dr. Maudsley's charge having permission to accompany their teacher through one of our large asylums, with a view to their practical acquaintance with symptoms of different forms of insanity.

At a meeting of the Council of Sydenham College held on February 4, it was unanimously resolved—"That this Council cordially approves of the proposed amalgamation of the Sydenham College with the Queen's College, Birmingham."

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF WOUNDS UPON THE ANTISEPTIC AND SUBCUTANEOUS PRINCIPLES.(a)

By WILLIAM ADAMS, F.R.C.S.,
Surgeon to the Great Northern and Royal Orthopædic Hospitals, etc.

No subject can be of greater interest to the scientific Surgeon, or of more direct practical importance, than the principles upon which the treatment of wounds should be based, including as it does the treatment of a large proportion of Surgical accidents, and many diseases which fall under the notice of the Surgeon, as well as the treatment of wounds made by operations. When, therefore, any new principle of treatment is sought to be established, and any new application and mode of procedure in the treatment of wounds is brought prominently before the Profession, I think it should be discussed in a Society which is pre-eminently of a clinical and scientific character, like that of the Medical Society of London.

I therefore propose to submit to the consideration of the members of this Society, this evening, some observations on the antiseptic and the subcutaneous principles of treatment of wounds; and especially to show how far these principles may be relied upon separately, as guiding us in the treatment of different classes of wounds, and to what extent we should rely upon the two principles in combination.

First, then, with regard to the antiseptic principle, for the development of which into a system of treatment, based upon the "germ theory" of M. Pasteur, and applicable to extensive injuries and large lacerated wounds, such as in severe compound fractures, the Profession is indebted to Professor Lister, of Glasgow.

It is true there is no novelty in the application of antiseptics to open wounds; and even the antiseptic which Professor Lister has selected—viz., carbolic acid—has been extensively employed by Surgeons, and a large book on the subject of carbolic acid and its use in Medicine, by Dr. Lemaire, had in 1865 reached its second edition; but still, as pointed out by Professor Syme,(b) there is great novelty and originality in the method of applying the antiseptic adopted by Mr. Lister, as based upon the "germ theory" of M. Pasteur. The recognition of this originality must be unhesitatingly granted by the Profession; but what now principally concerns us is to verify the facts upon which the theory itself is based, and also the extent to which, if true, its adoption necessitates the employment of caustic antiseptics introduced into recent wounds, at the risk of causing further destruction of tissue, and even necrosis of bone—events regarded by Mr. Lister of little importance, as compared with the efficient action of the antiseptic.

The theory of M. Pasteur is simply this—that instead of regarding the septic or decomposing properties of the atmosphere as due to the oxygen and moisture, as generally believed; the decomposing properties are supposed to depend upon the universal diffusion through the atmosphere of minute organic molecules, which, by their development in the blood or serous exudation in wounds in which they are deposited, give rise to fermentative and putrefactive changes.

According to this theory, then, minute organisms constantly floating in the air are the immediate cause of putrefaction, and putrefaction is regarded as the cause of suppuration. Mr. Lister observes(c):—"We know from the researches of Pasteur that the atmosphere does contain among its floating particles the spores of minute vegetations and infusoria, and in greater numbers where animal and vegetable life abound, as in crowded cities or under the shade of trees, than where the opposite conditions prevail, as in unfrequented caves or on Alpine glaciers . . . and it is peculiarly in harmony with the extraordinary powers of self-diffusion and penetration exhibited by putrefaction that the chief agents in this process appear to be 'vibrios' endowed with the faculty of locomotion, so that they are able to make their way speedily along a layer of fluid such as serum or pus." And in a footnote to this Mr. Lister observes:—"I have seen vibrios, so minute as to be only just discernible with the highest powers of an excellent microscope, shoot across the field of view with a velocity that astonished me."

The best general account of Mr. Lister's views is given in a paper read by him at the annual meeting of the British Medical Association in Dublin on August 9, 1867, and reported in the *British Medical Journal* September 21, 1867. In this paper he observes—"But when it had been shown by the researches of Pasteur(d) that the septic property of the atmosphere depended not on the oxygen, or any gaseous constituent, but on minute organisms suspended in it, which owed their energy to their vitality, it occurred to me that decomposition in the injured part might be avoided *without excluding the air* by applying as a dressing some material capable of destroying the life of the floating particles." . . .

"The material which I have employed is carbolic or phenic acid—a volatile organic compound which appears to exercise a peculiarly destructive influence upon low forms of life, and hence is the most powerful antiseptic with which we are at present acquainted. . . .

"In conducting the treatment, the first object must be the destruction of any septic germs which may have been introduced into the wound, either at the moment of the accident or during the time which has since elapsed. This is done by introducing the acid of full strength into all accessible recesses of the wound by means of a piece of rag held in dressing forceps, and dipped in the liquid. This I did not venture to do in the earlier cases; but experience has shown that the compound which carbolic acid forms with the blood, and also any portions of tissue killed by its caustic action, including even parts of the bone, are disposed of by absorption and organisation, provided they are afterwards kept from decomposing."

Such, then, is the general outline of the "germ theory" of M. Pasteur, and the principles of the antiseptic treatment based upon it by Mr. Lister. Further details of the treatment are given by him, and a considerable number of favourable cases, including severe compound fractures, lacerated wounds, abscesses connected with carious bone, etc., are recorded by him in support of the treatment.

The facts placed on record by Mr. Lister are of course beyond question, and are, no doubt, a faithful record of cases treated upon the antiseptic principle advocated by him, and these results show undoubtedly a larger amount of success in the treatment of severe compound fractures and lacerated wounds than is generally met with. But still I do not feel inclined to accept Mr. Lister's explanation of these successful cases as based upon the "germ theory" and caustic antiseptics. I believe, on the other hand, that for these brilliant results Mr. Lister is mainly indebted to the adoption of the subcutaneous principle, the patients under the advantages of this system recovering even from the effects of caustic antiseptics in addition to the injuries sustained. The phenomena observed by Mr. Lister, and explained by him as depending upon the antiseptic principle, to my mind admit of being equally well explained upon the subcutaneous theory; and there can be no doubt that equally good results, as to the healing of compound fractures and large lacerated wounds, have been obtained by other Surgeons who have adopted the subcutaneous principle, combined with weak and unirritating antiseptics.

One clinical fact which to my mind appears to be opposed to the "germ theory" is the frequency with which wounds, under apparently unfavourable circumstances, heal by the first intention, without inflammation or suppuration, which we should expect would more generally occur if suppuration depended upon organic molecules always floating in the air, and therefore always ready to enter wounds where they would germinate and promote putrefaction. We must be careful to avoid assuming too much credit for any artificial means employed, and also to avoid the common error of attaching too little importance to the *vis medicatrix naturæ*, or the true reparative power dependent upon the healthy condition and constitutional powers of the patient.

The practical question is whether antiseptics are to be employed upon the "germ theory" of M. Pasteur, and applied of caustic strength to the deep recesses of recent lacerated and contused wounds of large size, such as in severe compound fractures, at the risk of causing further destruction of tissues

(a) Read before the Medical Society of London, March 2, 1868.

(b) "[illegible] on the Antiseptic Principle of Treatment in Surgery." By [illegible]. Lancet, [illegible].

(c) See [illegible], Nov. [illegible], 1867. "Three Lectures on the Antiseptic System of Treatment in Surgery," by Joseph Lister, No. I.

(d) See Pasteur's papers in the *Comptes Rendus*, vols. l. li. lii. liv.; also a paper by Messrs. Edwards and Jeffries on experiments performed by Pasteur before a Committee of the French Academy of Science, *Annales des Sciences Naturelles*, March and April, 1862.

and necrosis of bone; or whether they are to be used simply as antiseptics in a mild and unirritating form, with the sole purpose of preventing decomposition and putrefaction, such as would arise from exposure to the oxygen and moisture contained in the air, the healing of the wound being conducted essentially according to the subcutaneous principle—*i.e.*, the exclusion of the air by the mildest and least irritating means. My own opinion is strongly in favour of the latter view, and opposed to the application of caustic antiseptics.

This can only be determined when time has afforded other Surgeons sufficient opportunities for deciding whether mild and unirritating antiseptics, applied to large wounds in combination with the subcutaneous principle of treatment, yield results equally as good as those reported by Mr. Lister as obtained by means of caustic antiseptic applications. I confidently anticipate they will do so, and observe that in a series of seven cases, including several severe accidents and injuries, treated by Mr. Syme upon the antiseptic principle, and recorded in the *British Medical Journal* of January 4 of the present year, no reference is made to the employment of caustic antiseptics. Mr. Syme observes:—"The preparations employed by Mr. Lister, which have been adopted here, may be denominated carbolic oil, carbolic lotion, and carbolic paste. The composition of the first is carbolic acid and boiled linseed or other fixed oil, in the proportion of one to five; that of the second, carbolic acid and water, in the proportion of one to thirty; and that of the third, carbolic acid with whitening, in the proportions requisite for the consistence of soft putty." In these cases the wounds were sponged with the weak carbolic lotion, which, in the cases of compound fracture, was also freely injected between the broken ends of the bones, and lint soaked in it applied over the wound, which was also covered with the carbolic paste. In some cases the carbolic oil was used instead of the lotion. The results were, in all the cases, unexceptionally good, and I cannot but doubt that this practice will be generally followed, embodying, as it does, in a scientific manner the combination of the antiseptic with the subcutaneous principles.

To a certain extent it may be said that the practice is the same—viz., to exclude the air from the wound—whether this be done upon the "germ theory" or upon the theory of oxygen and moisture causing decomposition; but if the "germ theory" leads of necessity to the application of caustic antiseptics, then a wide difference in practice is at once established.

There can be no doubt that the greatest improvement in the treatment of wounds which has taken place in modern times, and that to which many lives are indebted for their existence, and by which many limbs have been saved, is the introduction of the antiseptic principle. Antiseptic lotions have now taken the place of water in the ordinary dressing, washing, and cleansing of wounds. We have, however, yet to determine by experience which shall prove to be the most efficient application, and amongst those generally in use are, the lotion of carbolic acid in the proportion of one part of the acid to thirty of water, or even weaker; Condy's fluid, which during the late wars proved so useful in army practice, and has long been in use in our general Hospitals; and lime-water, diluted with equal parts of water, which, in inflamed and suppurating wounds, I have been in the habit of using for many years.

Whilst fully admitting the importance of the antiseptic principle, with the exception only of the application of antiseptics strong enough to act as caustics, such as the strong carbolic acid applications sometimes used, I am desirous of submitting to the members of this Society that there are other applications and methods of dressing wounds of known efficiency; some of these owe their efficiency more to the subcutaneous than the antiseptic principle, whilst others depend more upon their combination in equal proportions of the antiseptic with the subcutaneous principle.

As examples of the first class in which the subcutaneous principle is chiefly relied upon, I would mention, first, the method of dressing wounds simply with their own blood and dry lint. In this method the great object is to avoid exposure, or, at any rate, long exposure, of the cut surfaces to the air; and in this way, if no water be used, the wound being dressed only with dry lint, and a light pressure maintained by a bandage, incised wounds of considerable size, such as remain after the removal of moderate-sized tumours, amputation of fingers, etc., may be brought into a condition nearly as favourable to the reparative process as in true subcutaneous injuries and operations. All Surgeons are familiar with the fact that large incised wounds, when treated in this way, as they sometimes are by patients in the absence of Medical aid, frequently heal by the first intention, which would not have happened had the wounds been long exposed to the air, or if they had been washed with water.

Few Practitioners have recognised the importance of excluding the air from open wounds, and still less have Surgeons recognised the decomposing influence of water; but I may mention that for some time I have been in the habit of washing wounds with ether, instead of water, which I have found to contribute to the healing of many lacerated wounds, which appeared unlikely to heal by the first intention. Hippocrates,(d) when speaking of the treatment of compound fracture, says:—"The wound is to be dressed in the summer with compresses soaked in wine; in the winter they should be dipped in oil, and the dressings will need renewal every day." I, for one, should certainly admit that, as a dressing for wounds, oil and wine are preferable to water.

Next to the simplest and most natural dressing of blood and dry lint is the method of dressing incised and lacerated wounds, even in compound fractures, with lint soaked in compound tincture of benzoin—the old Friar's balsam of well-deserved notoriety. This plan was based chiefly upon the subcutaneous principle, its object being by the exclusion of air to bring a compound fracture as nearly as possible into the same conditions as a simple fracture, but some of its advantages were undoubtedly due to the antiseptic properties of the tincture of benzoin. The late Mr. Bennion, of Oswestry, in Shropshire, adopted this plan, and obtained considerable reputation by his successful treatment of cases of compound fracture, accidents of frequent occurrence in this district. After setting the fracture, he covered the wound with a large piece of lint saturated with compound tincture of benzoin. He never disturbed the first dressing unless urgent symptoms indicated the necessity of so doing, and if such symptoms did not appear, he would allow the first dressing to remain for a month.

(*To be continued.*)

OBSERVATIONS ON

THE RECENT EPIDEMIC OF TYPHOID FEVER AT TERLING, ESSEX.

By J. H. SALTER, M.R.C.S., L.S.A., L.M.,
Associate of King's College, etc., etc

So much has been said and written lately about typhoid fever, more especially in connexion with its outbreak at Terling, in Essex, that any addition to this already "overweighted" subject would appear to be superfluous, were it not that communications from those actually present at the scene of disaster have not been abundant. On this account I have been prompted to commit to paper those observations which have, from time to time, occurred to me in my various visits to Terling, trusting that, as they have been of peculiar interest to myself, they may be read with similar feelings by other members of the Profession.

At the commencement of the outbreak, my friend and neighbour, Dr. Gimson, of Witham, who has, throughout the course of the epidemic, laboured with an unswerving zeal as creditable as it was disinterested, invited me to visit the cases with him. There were then some seventy or eighty persons, perhaps more, under treatment.

My first impression on viewing those on whom the disease had settled was that we had to do with two kinds of fever—one of short duration, and mild in its character; the other more virulent, and lasting longer. The onset of the fever was insidious and indistinctly marked. Diarrhœa, though present in the majority of cases, was not common to all. The typhoid "spot" was not always to be found, and the amount of febrile disturbance, in many cases, scarcely warranted confinement to bed; but, on the other hand, some were unmistakable cases of typhoid. These cases commenced with lassitude and shiverings, aching heads and limbs, dry and hot skins, pinched faces, diarrhœa, and general abdominal disturbance, passing on, in the course of eight or ten days, to the exhibition of the characteristic rose-coloured spots, cropping up freshly every second or third day. The urine scanty and high-coloured, intestinal discharges severe, and accompanied by blood, and urgent tympanitis. A steady and gradual rise of temperature throughout the first fortnight, increasing towards evening. Dulness over the spleen. The tongue at first covered

(d) *Brit. Med. Journ.*, Jan. 11, 1868. Paper by Mr. W. Newman (Stafford, "On the Surgery and Surgical Instruments of the Roman Empire."

with moist, dirty-looking fur, and exhibiting the dark centre with its red tip and edges, finally entirely red, glazed, dry, and polished. These symptoms ushered in only too frequently the later and more fatal stages of the disease at the end of the third or beginning of the fourth week, indicated by low muttering delirium, convulsive twitchings, "picking at the bed-clothes," cracked lips, blackened sordes about the teeth, continuous pulse, uncontrolled sphincters, and death by coma.

As time went on, the disease took on a more marked and violent form, characteristic symptoms being no longer indistinct, and the mortality was proportionately increased. Cases occurred of persons seized with the fever, who appeared to be overpowered at once with the intensity of the poison imbibed, being stricken down in the course of two or three days, and dying outright without any disposition to do battle with the enemy. As a rule, those cases which ostensibly presented the least cause for alarm became the most intractable in treatment and prolonged in duration, while those in whom the disease commenced with apparent violence, if once indicating a disposition to offer some constitutional resistance, occasionally ended the most advantageously. When once the disease had fairly commenced, the rapidity of its spread was unprecedented and its severity extreme. Age gave no immunity. Fresh cases of every period of life—from the infant in arms 14 or 15 months old to the decrepit crone verging on 70—occurred daily, causing the weekly returns to rise from 50 to 100, and from 100 to 200 with fearful rapidity. Some, as I have said, were cut off quickly, their days being measured by hours; others, possessing probably greater powers of resistance to the subtle enemy, or who might have imbibed a smaller quantity of its noxious material, lingered on for a month, or more frequently six and even eight weeks.

Relapses were frequent, all the previous characters of the disease, even to the spots, re-establishing themselves with renewed violence. One or two of the most severe cases of relapse, in whom hæmorrhage from the intestines again and again had formed an anxious phase, recovered.

The women and children were the first victims, in consequence, I presume, of being always at home, breathing the pestilential air and drinking the plague-infected water; the husbands succumbed the last, their material being of "sterner stuff," their habits more nomadic, their feeding probably better.

The greater part of the cases commenced with diarrhœa, which, however, was in some cases slight; the majority suffered from intestinal hæmorrhage, with the accompanying symptoms denoting intestinal mischief, such as tenderness, gurgling, swelling of the belly, and tympanitis. Almost all the cases of death, save those caused by the first onslaught of the fever, indicated severe abdominal lesion by profuse and frequent hæmorrhagic discharges, and by death being in many cases the result of perforation of the intestine.

The tenderness of the belly, tympanitis, with purging and hæmorrhage, appeared to bear a ratio in their proportion to the spots, which were, as a rule, developed in greater numbers in adult cases than in children. I noticed also that these spots in children were more frequently present on the back and shoulders, while those of the adults exhibited them in greater numbers on the chest and abdomen. There were several cases of advanced pregnancy, and in these women the fever was of extreme severity. In one case only occurred a premature birth (of seven months), after which both mother and child did well.

The pulmonary complications were numerous, and appeared to fluctuate with the amount of the intestinal discharge. For the most part, when irritating cough, dyspnœa, with expectoration of frothy mucus, bronchial breathing, and dulness over the bases of the lungs, were urgent, diarrhœa was more frequently absent. As soon, however, as the intestinal flow supervened, these symptoms usually experienced relief, as though the blood circulating through the lung-tissue had become saturated with the typhoid poison, and, being pent up, had caused, so to speak, a mechanical source of irritation, which became relieved by a partial elimination. Several phases of the disease might be noted in different members of the same family, lying side by side: in one, diarrhœa, with bloody discharges, tympanitis, the eruption abundantly visible, and all the symptoms of ulceration of the intestines, with a small, soft, compressible pulse, and tongue furred, though moist, red at tip and edges; in a second, cerebral symptoms would be the most prominent, with the spots observable, bowels constipated, tongue dry, glazed, and fissured in a peculiar manner, or thickly covered with a brownish coating, accompanied by delirium, but no intestinal complication; while in a third, coupled with general brain symptoms and a slight bowel disturbance (more frequently none), pulmonary complications in the form of bronchitis and pneumonia became the most prominent observable symptoms. Abdominal tenderness was present in all the cases; sickness was a rare attendant; deafness a common complication, commencing and passing away suddenly and completely, unassociated with other cerebral mischief.

The severe relapses usually following a too early return to the erect posture, as a rule, terminated fatally, with symptoms of perforation. In one case, a young vigorous man, who had passed through a pretty severe ordeal, accompanied by considerable hæmorrhagic discharge from the bowels, on the approach of apparent convalescence, got up, was suddenly seized with faintness, clammy sweats, great prostration, and vomiting, and, in a state of collapse, died from perforation.

The abundance of "spots," sometimes aggregated together in unusual numbers, attracted my attention as uncommon. They were of the ordinary rose-colour, disappearing momentarily on pressure, slightly raised, and having an existence of a few days, the intervals between them being shortly filled up by the interposition of others. Small "sudamina" all over the surface of the skin I noticed in one or two cases, which terminated fatally. Recoveries were more than usually protracted, and relapses very frequent. Children in whom apparent convalescence had been established for weeks going down a second time, showing that the susceptibility of a second action from the same morbid agent is not always, in typhoid fever, exhausted. A complication with tuberculosis usually terminated with fatal results. The severity of some cases of hæmorrhage from the intestine, which recovered, reflected great credit on the Medical management. The uniformity of the recovery of pregnant women, without the complication of phlegmasia dolens, or other disease indicating an impoverished condition of the blood, are points of peculiar interest.

I noticed a few children of strumous type whose parotid and submaxillary glands appeared to be the seat of inflammatory enlargement during the convalescent stage. The high rate of deaths, in spite of the unusual Professional care bestowed on the patients, places the outbreak at Terling far in advance of the ordinary mortality of this disease. With respect to treatment, the chief regard was paid to watching constantly and earnestly the various changes which in this malady are so numerous, and of combating the symptoms of urgency as they arose. This alone will be sufficient to give some idea of the work imposed on those who had the Professional care of the sick.

The recumbent posture, in the mildest cases, was always insisted on even to the full term of convalescence. Solid food, for a like period, prohibited. The outline of medicinal remedies consisted of the administration of a mild saline aperient or a dose of castor oil if the bowels at first were too constipated; if violently purged, doses of opium proportionate to the urgency of the symptoms, either with or without combination with an ordinary "diarrhœa mixture." When hæmorrhage existed, acetate of lead in conjunction with opium and turpentine were the favourite remedies. The external application of turpentine stupes was also persevered in. Latterly a great majority of the cases were treated in the manner advocated by Dr. J. Burney Yeo, of King's College, in a recent article in the *Medical Times and Gazette*, by the internal adminstration of chlorine in solution, paying especial regard to the controlling of the intestinal discharges by means of small doses of opium; and in justice to him I ought to mention that though a vast number of these cases were extremely severe, several exhibiting the most malignant symptoms of the epidemic, the treatment was steadily persevered with, and, in all cases, with a successful issue. Fuller details of treatment, I hope, will be given by Dr. Gimson on some future occasion.

With regard to the origin of the epidemic: Typhoid fever, which belongs to that class of diseases called zymotic (the deaths from which in Great Britain amount annually to a number varying from 21 to 26 per cent. of the total number of deaths, while the return for London alone last year amounted to 15,000 out of 70,000!) is of the miasmatic order, and is more prolific in England, it is said, than in any country(a) in the world. It is propagated by "continuous succession," *i.e.* by direct communication with the germs, "media of infection," or poisonous material whatever form it may assume of pre-existing disease of the same type, being governed in its ravages

(a) Aitken.

by influences favourable or unfavourable to its growth. Poisons of all kinds possess a period of latency, varying in duration, before developing phenomena, distinctly characteristic, and specifically defined, the resulting actions of which vary with those conditions to which they may be subject.

In the village of Terling and its neighbourhood, typhoid fever has been rarely absent for any length of time during several years past, breaking out here and there with peculiar waywardness. A legend exists in the village that 200 years ago Terling was depopulated to the number of *four* persons, by an outbreak of this fever; but time, which colours all things may probably have lent a little colour to this story. Be this as it may, it is pretty clear that the germs of typhoid fever have hovered over Terling for a considerable period, sometimes assuming a latency or period of rest, more benignant-looking than real, in which, as it were, to gather together, store up, and concentrate its poisons to burst forth again and again, and scatter broadcast its baneful influences. The destructive violence of the recent visitation will be indelibly and painfully impressed on the memories of all those who participated in its scourge, or witnessed its ravages.

The conditions favourable to its spread were in every respect present in this village by its situation, soil, dwellings, and general arrangements, which have elsewhere attracted a more than usual amount of criticism and discussion. The natural porosity of the gravelly soil made the passage of fluids at all times an easy matter, and the cesspools and offal heaps being unenclosed and unlimited either in extent or construction, added to the facilities so afforded, while a sudden flood, caused by the heavy rains of November, occasioned a rise in the water of the ill-constructed wells. These together make the picture complete, to which the quickly following outbreak, with all its terrors, forms a fit companion.

One well, drunk of by persons more fortunate than their neighbours—the only one, by the way, returned by the analytical chemist as fit for human drink—carried its consumers safely through the epidemic, for of the twenty-eight families imbibing it, not one, I am told by the Medical officer, have been stricken with fever, when scarcely another dwelling in the place is exempt. This appears to me to be an all-convincing fact that the outbreak of the disease was primarily occasioned by the impure state of the water, which was proved to be impregnated with fæcal matter, and probably contained typhoid germs.

In conclusion, let me remark that the solicitude shown by some of the men of Terling for the inmates of their homes, some of them having a wife expecting shortly to be confined, with three or four fever-stricken children in various stages of the malady, from the first peevish grumblings to the delirium too frequently the precursor of death, was touching in the extreme. In the absence of nurses, who could not be persuaded to enter the plague-stricken place until the "Sisters of East Grinstead" set them a noble example, and threw a protecting and hopeful influence over the fever-stricken scene, these men fulfilled, and right well too, all the duties of the most watchful nurses, so that, whatever the conformation of their bodies may have been—which, as far as I have had opportunities of judging, are average in stature and symmetry, notwithstanding the report of the Poor-law Inspector—the character of their hearts and minds are well developed, and if their "stature" be measured in this respect they must pass a high standard among the generality of mankind.

Tolleshunt Darcy, Essex.

Death of Dr. Ray, of Dulwich.—We regret to announce the death of this well-known Practitioner. Dr. Ray was educated at Guy's, and at the Norfolk and Norwich Hospitals. He was a Fellow of the Royal College of Surgeons, and a Doctor of Medicine of St. Andrews. Although few men were better known or more esteemed, Dr. Ray had not contributed much to the literature of the Profession, but he was always foremost in supporting what he believed to be for the interest of the body to which he belonged, amongst whom he leaves behind him a large number of friends.

Hospital for Women.—On Tuesday last H.R.H. the Princess Christian made a private visit to the Hospital for Women, Soho-square, to inquire after one of her Royal Highness's servants who is an inmate of that institution. Her Royal Highness visited one of the wards, and expressed her gratification at the general arrangement of the Hospital, and the appearance of comfort which the wards presented.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

TWO CASES OF OVARIOTOMY.

(Under the care of Mr. LE GROS CLARK and Dr. BARNES.)

The two following cases of ovariotomy have been recently performed by Mr. Le Gros Clark, and forwarded to us for publication by the Medical Registrar, Mr. F. Churchill, who has compiled this report from his own notes conjointly with those of the dresser, Mr. J. Mitchell.

Case 1.—*Multilocular Ovarian Cyst—Never Tapped—Extensive Adhesions—Recovery.*

S. T., aged 33, married, with four children, the youngest of which is five years old, was admitted into St. Thomas's Hospital, under Dr. Barnes, November 9, 1867, and ovariotomy performed by Mr. Le Gros Clark on November 15. The tumour had been growing about eight months, but the catamenia were regular up to the period of her admission. Dr. Barnes, after consultation with Dr. R. Fowler, her Medical attendant, recommended the removal of the tumour, and the patient was admitted into the Hospital for that purpose. There was no family history of cancerous or other tumours. Her mother died of phthisis, and her father of old age; she has two sisters and one brother, all adult, well and healthy. Her labours have all been natural, but she has had two miscarriages since the last. She perceived pain chiefly on the left side, and had frequent bearing-down pains, with constant pain and weakness in the back, but no flooding. Her appetite began to fail about two months before admission, and she has had occasional attacks of vomiting for about six months. The bowels were regular until last October, when they began to be obstinately costive. The urine was clear until shortly before admission, when it became thick and scanty. Both legs, but especially the left, were somewhat swollen, and she complained of a dull aching sensation in them. The circular measurement of the abdomen, two days before the operation, at the level of the umbilicus was nearly 48 inches. There was dulness on percussion all over the distended abdomen except laterally, and the lateral resonance did not change its place on an alteration of position by the patient shifting on either side. On gently percussing the left side, the impact was distinctly felt on the right side, and the wavy fluctuation gave the impression of the presence of a thin fluid, from the peculiar thrilling vibration. There was tympanitic resonance, and on auscultation a gurgling sound (probably from the displaced stomach) as high as the fifth rib on the left side. On examination the chest was found to be healthy.

November 15.—Pulse quiet, 108; temperature 98° F.; respirations 30. The patient was put under the influence of chloroform, and conveyed to the operating-table at the upper part of the ward, temporarily screened off, and raised to the temperature of 65°. The operation was commenced by an incision extending from an inch below the umbilicus down to the pubes. The skin, fascia, and linea alba were divided, and the peritoneum then opened, when the cyst, occupying the chief part of the abdominal cavity, was exposed. On puncturing the cyst with a large trocar, it was found to contain some gelatiniform material, which could not pass through the canula. The jelly-like mass was so tenacious that it was necessary to employ both hands in extracting it, and frequently to clear it from the hands by warm water. The quantity amounted to upwards of three gallons; it was heterogeneous, generally clear; but in some places opaque; in others, tinged with blood. The cyst was found to be multilocular, and one cyst towards the left side, with three or more smaller ones, were punctured prior to the separation of the adhesions, which were found to be universal. The omentum in front, and the mesentery behind, the stomach, liver, and intestines had to be cautiously separated. The aorta and iliac arteries were felt pulsating behind the fingers as they were carried downwards from the abdomen into the pelvis. Ultimately the isolation of the main cyst was completed; and, after the puncture of the smaller cysts, the tumour was sufficiently collapsed to be extracted and the pedicle grasped, the sides of the wound being meanwhile protected with warm moist flannels. A portion of omentum was found still adherent to the tumour, and,

after its separation, there was some troublesome hæmorrhage, which was arrested by means of a clamp. The pedicle, about 1½ inch in diameter, was secured by another clamp, and an adhesion to the Fallopian tube cautiously severed by scissors without much hæmorrhage. The pedicle was then divided with a scalpel above the clamp, and the tumour removed. There was no oozing from the stump of the pedicle, and the fluid which exuded from the broken adhesions appeared to be serum mixed with blood. This fluid was carefully wiped out of the peritoneal cavity with a succession of warm moist sponges, and the first clamp removed from the omentum, after ligature of the bleeding point. The edges of the wound were approximated by an uninterrupted silk suture from below upwards, the first thread confining the clamp with the pedicle, and four interrupted sutures introduced on its completion. The patient took the chloroform well, although at first it caused her to vomit some clear green fluid, and at one time, just after the removal of the cyst, respiration entirely ceased for a few seconds; this, however, was quickly re-established after pressing the thorax and moving the arms upwards and downwards somewhat vigorously. There was no lividity, and the pulse remained fair—about 120, small—throughout. After the return of consciousness, the patient was quite quiet, and was then removed to a room prepared for her reception, and maintained at the same temperature as the portion of the ward adjoining where the operation had been performed, the air being kept constantly moist by vapour. At 9 p m. the pulse was 128; temperature 101·7°; respirations 28. Enema amyli c. tinct. opii mxx. given.

16th.—Tongue clean. No sickness. Urine passed naturally, after being drawn off twice. Pulse 128; temperature 101·6°; respirations 26.

17th.—To repeat opiate enema. Pulse 104. Cheerful.

18th.—Still better. To have lotio acidi carbol. (mij. ad ʒj.) applied to the wound. Urine contained lithates. Pulse 104; temperature 98·3°; respirations 22.

19th.—Mr. Clark removed the wire suture, the superficial, and part of the uninterrupted silk sutures, when about a tablespoonful of pus escaped from the lower angle of the wound. Strips of plaister used to approximate the edges. Opiate enema repeated.

21st.—Several shreds of slough were removed from the pedicle, and the strength of the lotio acidi carbol. directed to be doubled. Urine clear.

22nd.—Mr. Clark removed the clamp and another piece of the suture, and found the pedicle firmly adherent to the sides of the wound at its deeper part. The patient was able to pass water freely after the removal of the clamp.

25th.—The last piece of suture was removed, and, on removal of a little surface slough, granulations were found on the extremity of the retracted pedicle. At this time the patient quite regained the uniform cheerfulness which she exhibited before the operation, and from this period she continued steadily to progress, the pulse and temperature continuing uniform throughout, and the wound granulating healthily, until December 9, when she was sufficiently recovered to return to her own home.

The case thus briefly sketched exhibits several points of interest. From the distinct undulatory thrill it was supposed that the contents were perfectly fluid, whereas, on puncture, a semi-solid mass appeared. The latter circumstance strongly justifies the decision arrived at in dealing with the case—viz., not to tap the tumour, but at once to proceed to ovariotomy. Had the tumour been tapped, no relief would have been experienced, whilst the danger to the patient would have been seriously increased. Another point worthy of note is the absence of any effect from the tumour on the catamenia during its rapid growth. The perfect freedom from sickness after the operation is also remarkable, as the patient was of a decidedly bilious temperament. Lastly, the entire absence of any sign of peritonitis after so extensive an opening into, and separation of adhesions from, the peritoneum, is interesting, and affords (as Mr Clark observed in his clinical lecture, in referring to this case) an illustration on a large scale of the fact that the occurrence of chronic inflammation entirely alters the susceptibility of serous and synovial membranes to take on acute inflammatory action.

Case 2.—Multilocular Ovarian Cyst—Once Tapped and Injected with Iodine—Extensive Adhesions—Death

S S., aged 23, married when 18 years old, and having had three children since. The pain and swelling of the abdomen continued longer than usual after her last confinement; and soon after this she noticed a tumour growing on the right side. She has never had any excessive vaginal discharge. Her general health and appetite are good. She experiences some little difficulty in passing water. About six months ago she was tapped, and four gallons of a clear straw-coloured fluid were drawn off. Dr. Barnes then injected the cyst with thirty drachms of tincture of iodine. A week after this, the abdomen measured 32 inches in circumference, and there was no great tension or tenderness of the parietes. She left the Hospital apparently cured of her disease, but returned in January with a very large ovarian tumour, when Dr. Barnes recommended its removal.

Jan. 3.—The abdomen is uniformly distended with fluid, bulging somewhat to the right side; it measures 48 inches in circumference at the level of the umbilicus. The respirations are somewhat laboured and frequent, from the bulk and distension of the abdomen.

10th.—Dr. Bristowe examined her chest, and reported the heart and lungs comparatively healthy.

14th.—Integument of the abdomen considerably distended with fluid. Percussion fremitus elicited with the slightest tap on the opposite side of the abdomen; marked venous engorgement of the abdominal parietes; no pain elicited on ordinary palpation. The measurement of the abdomen at the level of the umbilicus is 49½ inches in circumference; from the symphysis pubis to the scrobiculus cordis it measures 24 inches. Pulse 124, weak; temperature 98·4°; tongue clean; appetite good; bowels regular; no bruits to be heard on auscultation of the abdomen. She still has a difficulty in passing water; urine acid, sp. gr. 1013, no albumen. The catamenia have continued regular, but the last period was rather prolonged—it ceased three days ago.

17th.—*Operation*, 2 *p.m.*—The patient, being prepared for the operation, was put under the influence of chloroform, and removed to the operating table at the upper end of the ward, which was screened off from the rest, and kept at a temperature of 65° F. Mr. Le Gros Clark commenced his incision two inches below and a little to the left of the umbilicus, continuing it down towards the pubes for six inches. He carefully cut through the abdominal parietes and exposed the largest cyst, which he tapped, and drew off the fluid. He then discovered that the tumour was firmly adherent to the anterior wall on both sides; these adhesions were separated with difficulty. There were also adhesions to the omentum and mesentery, but these were more readily separated. The pelvic attachments were also very firm. All the adhesions being separated except that to the bladder, the tumour was turned out of the abdominal cavity, and a clamp applied to the pedicle and vesical attachment. Two or three of the smaller cysts were punctured during the operation, and they yielded a thick brown fluid. The total fluid liberated amounted to nearly 4½ gallons. There were one or two hydatidiform cysts connected by narrow pedicles to the tumour. The clamp being secured, the pedicle, which was somewhat short and broad, was divided between the clamp and the tumour. There was a little oozing from the lacerated adhesions. Mr. Clark tied the bleeding vessels, and cut the ends off close. After sponging out the cavity of the abdomen, the lips of the wound, excepting that part surrounding the pedicle, were brought together by an uninterrupted suture. In consequence of the extensive and remarkably firm adhesions, which required to be patiently and carefully separated, the patient was under chloroform nearly two hours, the operation lasting about an hour and a half.

She was removed from the operating table to a private ward which had been previously raised to the same temperature. About seven hours after the operation she began to vomit, and the abdomen became rapidly distended. Ice and brandy were given, and warm fomentations applied to the abdomen, but she never thoroughly rallied from the shock of the operation, and she died about 10.45 a.m. on the following morning.

A post-mortem examination was not permitted.

THE LONDON HOSPITAL.

BRIEF NOTES OF VARIOUS CASES.

(Under the care of Mr HUTCHINSON.)

A novel and very curious Fact as regards the Influence of Chronic Inflammation in promoting Growth.

THERE is at present in "George" ward a young man who is the subject of inherited syphilis, and whose left tibia is covered with osseous nodes. He has suffered for years from chronic periostitis. The curious point in his case is that the inflamed

bone has grown an inch and a half longer than the other. The increase in length is quite conspicuous, and the limb looks awkward from the great length of the leg. The bone is somewhat curved forwards; otherwise its increase in length would be yet greater than it now is. Mr. Hutchinson stated in some remarks on this curious condition, that he had several times noticed the apparent lengthening of the leg in young patients who had suffered from chronic periostitis, but had never had curiosity enough to try measurement until a few weeks ago, when a girl under his care at the Hospital for Skin Diseases volunteered a complaint that one leg was getting longer than the other. The tape at once confirmed her impression, her left tibia being about an inch longer than the other. The next day Mr. Hutchinson tried the same test in the patient in the London, and found as we have stated. Of course the conjecture is that the increased supply of blood to the bone induced by the inflammation has at the same time promoted excess of growth. Should the fact be confirmed by further investigation, it will constitute a very curious illustration of a physiological law.

On primary Trephining in cases of Compound Fracture of the Skull with slight Depression, but wholly without Cerebral Symptoms.

A little girl has recently been discharged from the Hospital who had recovered well after trephining for compound fracture of the frontal bone on the right side. The operation was done on the day of the child's admission. She had at the time no cerebral symptoms whatever, but the finger could be passed into a wound, at the bottom of which a considerable fracture with some depression was felt. Mr. Hutchinson stated at the time that he used the trephine not to relieve symptoms, but to anticipate them. He urged strongly the importance of trephining in such cases, and related some remarkable facts in its support. He had, he said, repeatedly regretted not having operated, whilst he had never had cause to think that the operation had been prejudicial. In mere linear fissures without depression he did not advise trephining, but wherever depression existed there he would operate. The difference was that in the latter the inner table is almost certain to be splintered, perhaps rather extensively, whilst in fissure-fractures often it is not so. Of course, he would not dream of recommending an operation unless the fracture were compound, however considerable the depression might appear to be. He had, he said, repeatedly lost patients from meningitis because the fracture had appeared too trivial to require or justify an operation. On one occasion, within a few weeks, four adult men came under care with compound fractures with slight depression, in none of whom any cerebral symptoms existed at the time of admission. In two he trephined, and in two not; the only reason for the selection being that the two latter were slighter cases than the others. The two neglected patients both died of arachnitis; the two others both did perfectly well.

Removal of Foreign Bodies from the Ear.

The method we are about to describe is so simple that probably it may have occurred to others, and it has indeed been recommended in print by Mr. Hutchinson some time ago. It has, however, not yet found its way into our best manual of Aural Surgery (Toynbee, by Hinton), which advises the disappointing plan of syringing, whilst others still recommend the dangerous use of forceps or scoop. Instead of trying either of these, let the Surgeon take six inches of fine wire and double into a loop; then, having the patient placed on his side, pass the loop into the ear as far as it will go, and turn it a little gently.

At the first or second withdrawal the foreign body will come out in the loop. The wire being flexible gives no pain, and cannot possibly do damage. It is almost certain to find its way round the foreign body, however deeply the latter may be placed, or however closely it may fit the cavity. Mr. Hutchinson asserts in its advocacy that it is very much easier to use, very much safer, and lastly that he has several times succeeded with it in cases where other means had utterly failed. The scoop he regards as especially likely to do mischief, since it involves pressure against the wall of the auditory canal. There is in the London Hospital Museum part of the temporal bone of a child who died in consequence of a small bean having been forced by the scoop through the membrana tympani into the inner ear.

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Medical Times and Gazette.

SATURDAY, MARCH 7, 1868.

AMPUTATION AT THE HIP-JOINT IN MILITARY SURGERY.(a)

From the close of the first Empire till the end of the first half of the present century, the opinions of the Peninsular Surgeons on the subject of gunshot injuries held almost undisputed sway throughout Europe. So rapid, however, have been the improvements in the art of warfare within the last twenty years that many have hesitated to accept the dicta of men of great experience, it is true, but of experience gained under circumstances vastly different from those which are met with at the present day. If, on the one hand, the introduction of new weapons of destruction has increased the immediate mortality of the battle-field, and rendered formidable injuries which formerly might have been considered trivial, we have, on the other hand, the pleasure of knowing that a greater attention to the details of sanitary science, to the management of Hospitals, and to the conditions of the soldier's life, has done much to diminish those frightful scourges of the camp which have slain their hundreds where artillery has slain its tens. The experience gained during the recent campaigns in America and Germany has fully justified this scepticism, and has clearly shown the necessity for a careful reconsideration of the entire subject. Our attention has been specially directed to this question by the valuable reports which have recently issued from the Surgeon-General's Office at Washington, and which reflect the very highest credit upon their author, Dr. Otis, and his assistants for the conscientious manner in which they have laboured to obtain the most accurate statistical information upon all doubtful points, and upon the Government for the enlightened liberality it has shown in freely distributing the work amongst all those likely to take an interest in the subject.

Amputation at the hip-joint in military Surgery forms the subject of the latest report received from this office, and well deserves the exhaustive treatment it has received from Dr.

(a) 1. "A Report on Amputation at the Hip-joint in Military Surgery." Circular No. 7. Surgeon General's Office. Washington, 1867. 2. "A Contribution to the History of the Hip-joint Operations performed during the late Civil War," by Paul F. Eve, M.D., Professor of Surgery, University of Nashville, Confederate States Army. 1867. 3. "Military Surgery;" a review in the *American Journal of the Medical Sciences*. October, 1867.

Otis. It appears from the historical summary that this operation was originally proposed as early as 1729 by Morand, a pupil of Cheselden, and subsequently Professor to the Charité in Paris; and although it excited much discussion at the time, and several different methods of performing it were suggested, yet no operation worthy of being recorded as an amputation was performed until 1774, when Kerr of Northampton removed the entire limb by disarticulation at the hip-joint from a young girl the subject of strumous disease of the head of the femur and caries of the acetabulum. The patient survived the immediate effects of this unjustifiable mutilation, and lived till the seventeenth day, and thus the possibility of performing the operation without immediate danger was fairly established. No case is, however, recorded during the next twenty years, when we enter upon the period of military activity of the French Republic, and find that Larrey performed his first operation in 1793 for gunshot injury of the upper part of the femur. The immediate results appear to have been satisfactory, but the patient died during a hasty retreat of the army. The case, however, satisfied Larrey as to the advantages of the operation, and made him an earnest advocate of its adoption. From this date the claims of the operation were so far established, that during the various campaigns which terminated in the battle of Waterloo as many as eighteen or twenty cases, more or less authentic, are reported. Of these only three proved successful, the first being that by Brownrigg in 1811, the patient returning to England and living many years. Larrey's first success occurred in the following year, and is one of the few instances of recovery after a primary operation. Guthrie succeeded in the third case after Waterloo.

In the various minor wars and occasional *émeutes*, which occurred between this date and the commencement of the Crimean war, about forty amputations at the hip-joint for gunshot injury are recorded, of which only three can be considered as recoveries: one occurred in Algeria, and one in the Schleswig-Holstein campaign. During the Crimean war this operation was performed forty-four times, the cases being apportioned amongst the several armies as follows:—Two occurred in the Sardinian, eight in the Russian, fourteen in the British, and twenty in the French army. All unfortunately proved fatal, the majority being cases of primary amputation.

During the Italian campaign of 1859, nine cases occurred, of which four (secondary) recovered; two of these, however, were operated upon at Toulon on their return six months after the receipt of the injury.

The author sums up the results of the operation up to this period as follows:—Percentage mortality, 91·66; the recoveries being one after primary, four after intermediate, and five after secondary operations.

The records of civil practice during the same period are, however, far more favourable, possibly because fatal cases are not always published. Thus the

French number	8	successes and	15	deaths
Germans	7	,,	6	,,
Poles	-	,,	4	,,
English	10	,,	31	,,
Americans	15	,,	9	,,

The total results yielding a mortality of 58·56 per cent. We have not in every instance been able to verify all these cases by examination of the authorities referred to in the foot-notes, but we have noticed one inaccuracy in the list of British operations—*e.g.*, Mr. Erichsen's second case for encephaloid tumour of the thigh is described as unsuccessful, whereas the patient is stated to have made a good recovery, but to have died several months afterwards from recurrence of the disease in the lung.

Previously, then, to the American war, the results of amputation at the hip-joint in military Surgery compared very badly with those obtained in civil practice, the mortality being apparently increased exactly in proportion as the circumstances of the cases differed from those met with at home. Thus, the results of secondary and intermediate operations were found to be far more favourable than those of primary; whilst in the campaign in which the most favourable results were obtained—viz., the Italian war of 1859—the four cases which recovered were treated in permanent Hospitals situated in towns, and not exposed to the vicissitudes of ordinary camp life; two of the four had moreover reached very chronic stages. During the great American war fifty-three well-established cases were recorded, of which thirty-four occurred in the Federal and nineteen in the Confederate armies; several other cases have been reported from time to time, but have not been sufficiently authenticated.

Dr. Otis has arranged these under four heads, according to the period at which the operation was performed—viz., at the *primary stage*, or "period between the reception of the injury and the appearance of the inflammatory symptoms," rarely exceeding twenty hours; *intermediate stage*, "when inflammatory action has commenced, and is more or less capable of disturbing the animal economy," lasting from the day after the receipt of the injury to some time in the second or third month; *secondary stage*, "when the violence of the inflammatory symptoms and symptomatic fever has abated, and the suppurative stage is fully established," the conditions resembling, in fact, those of chronic disease. Reamputations have been placed in a separate class, as they differ markedly in the risk attendant upon them.

Of the nineteen cases included in the first class, one has survived the operation, and is still alive and well, and "two so far recovered that they were known to be in good condition—in one case two months, and in the other six months, from the dates at which the operations were performed: they appear to have been since lost sight of. The percentage mortality may be stated at 94·73 or 84·21, according as these two cases are excluded or not. The majority of the deaths resulted from the direct shock of the operation in from half an hour to ten hours.

All the intermediate operations, eighteen in number, terminated fatally. The patients are stated to have been, without exception, ill fitted, from unavoidable neglect and exposure, to undergo so severe a mutilation. Of these only five succumbed to the shock, the average period of death being about fifty-two hours after the operation.

Nine cases are included in the third class—secondary amputations; and of these two recovered and seven died, giving a percentage of 77·78. Three patients appear to have died from shock, and two from secondary hæmorrhage.

The reamputations proved most successful, for out of seven cases three only died, one from pyæmia and two from shock, the percentage mortality thus standing at 42·85. Some difference of opinion seems to exist with respect to real danger of this procedure, and the amount of evidence at present before us renders it impossible to decide this question.

With regard to the different methods of operating, no precise line of practice can be laid down for the military Surgeon, who must of necessity exercise his own judgment in the individual case before him. The following have, however, received the sanction of some of the most eminent authorities on this subject. The circular method, originally proposed by Abernethy and advocated by Cole, S. Cooper, Graefe, Larrey, and others, was successfully employed during the war. The mixed method of Le Dran, which consists in making skin flaps and dividing the soft parts by the circular incision, seems to have been followed by very satisfactory results both in civil and military practice in America, and is stated to have been found best suited for the later operations in which the surrounding parts had been much affected by prolonged

inflammation and suppuration. The oval method of Belmas is but little known in this country, and was employed but once during the war. The flap method, with the three varieties of single, two lateral, and antero-posterior flaps, was that most frequently adopted. Of these, Larrey's operation with the two lateral flaps, as modified by Lisfranc, was employed several times; but the majority of Surgeons preferred the antero-posterior flap method as proposed by Béclard and Liston. The posterior flap was usually cut very short, and thus the operation is practically the same as that known as Dr. Ashmead's modification of Plantade's method by the single flap: this was always preferred in cases of primary amputation. The aortic tourniquet was employed in only five cases during the war, but primary hæmorrhage does not seem to have formed a serious complication.

Dr. Otis does not enter into the question of the relative value of amputation and resection, but we learn from Professor Eve's very brief paper that "of thirteen cases of resections, five may be considered successful, or one in two and a half—two after primary, two after secondary, and one intermediate (six hours) recovered." Some of the cases are, however, quoted rather loosely, and too much from memory, no notes having been taken—a fact which detracts from their statistical value.

The report is enriched with numerous engravings, illustrating the nature of the injuries which led to the performance of the several operations, and with several coloured plates exhibiting the condition of the patients after recovery. It forms, on the whole, a most valuable addition to Surgical literature.

UNSOUNDNESS OF MIND.

Mr. Shaw, of Elstree, who was convicted the other day of receiving persons of unsound mind into his unlicensed house for profit in contravention of the salutary provisions of the Lunacy Acts, is in a fair way of receiving his deserts, and we do not think that there is one member of his Profession who will pity the man. There have been now and then instituted prosecutions in which it has seemed that there was a little straining of the law; but if ever there was a case in which the Commissioners in Lunacy had right and public approbation on their side, it is this one. For not only did Mr. Shaw receive patients for profit into his house, but one of them, an educated and refined lady, was set to perform menial tasks, while the other, Mr. Clode, was grossly neglected, lodged in a place represented as more like a pigsty than a human habitation, and altogether kept in a condition of filth indescribable; and for this, Mr. Clode's friends paid Shaw no less a sum than £120 per annum. The facts as regards Mr. Clode seem to have been these: he was only about 55 years of age, and had injured his bodily and mental health by habits of intemperance. The account given by Dr. Blandford, who visited him by the authority of the Lord Chancellor, was that he found Mr. Clode in a small room 12 ft. square by 6 ft. high, and without a fireplace, lying on a straw mattress, with nothing on but an old flannel shirt and a piece of carpet flung over him, all in a state of disgusting filth from his own evacuations, and indeed reeking and rotten with filth, so that it was impossible to have touched them but with a pitchfork, and the smell was overpoweringly odious and oppressive. In Dr. Blandford's opinion the man was labouring under "paralytic dementia," and he was of "unsound mind." He seemed, however, to have sufficient sense to see that he was in a shocking condition, for he said the place was in a disgraceful state. Some of the answers he gave seemed to be tolerably rational, and to indicate rather a feebleness of mind and decay of faculties, and, in particular, an utter loss of memory. For instance, he could not remember how long he had been there, and said four weeks instead of four years. Some of the answers, however, appeared to border on the irrational, and he had no sense of his position or condition. Dr. Blandford's opinion was, that Mr. Clode was of unsound mind, unable to take care of himself, and requiring to be taken care of.

Now, we imagine Mr. Clode's case differs in no respect from that of a great many patients in the county and other asylums for the insane. His mental condition was not such as would allow of his taking care of himself as a person in the full enjoyment of his faculties would be, and so he was a proper person to be placed where suitable attention would be paid him, and his wants observed and relieved. He was certainly not of sound mind, so far as this went, and so seems naturally to be one of those over which the State throws its mantle of protection for the good of themselves and to preserve the decency of society from outrage. Mr. Serjeant Ballantine, who defended Shaw, saw evidently that his case was a bad one. He could not deny the facts, and so fell back upon the only refuge left him—namely, the definition of unsoundness of mind—the meaning of the term as used in the Lunacy Acts. The point he raised was whether insanity or unsoundness of mind, within the meaning of the statute (which mentions "lunacy or unsoundness of mind" somewhat as if the latter were a mere explanation of the former term), included not only insanity as a specific disease of the mind, but also such unsoundness of mind or imbecility as arose rather from an entire decay of the faculties, physical and mental, by reason either of age or of paralysis, from intemperance, or any other cause. The Lord Chief Justice ruled that the latter was the true interpretation of the statute, and, looking at the general object with which these particular provisions of the Lunacy Acts were passed, we must say that we think his lordship is correct. It would, to our mind, be monstrous to include cases of unsoundness of mind arising from one set of causes and to exclude from the benefits of legislation cases arising from another set of causes, the necessity for removal to an asylum being the same in the two classes. The dry legal point raised by Serjeant Ballantine is reserved for the full court, and no doubt will be fully argued, as it should be. In the meantime the conviction stands, and the punishment of the offender will be proceeded with.

When the point reserved comes on for argument, we shall probably recur to the subject; for the case is an important one, and the decision of the Lord Chief Justice has extensive application.

Happily it is not very often that exposures are made similar to that in the Elstree case, and we believe that neglect such as this which Mr. Clode suffered is quite an exceptional occurrence. Such an event could scarcely happen where a house is licensed and regularly visited by the Lunacy Commissioners. Still, it must be said that it is establishments maintained for private profit that furnish the most frequent instances of defective management and arrangements. It is true that many of our county asylums are much too large and unwieldy, but they are, on the whole, models of what a refuge and hospital for the insane and imbecile should be. We think that an advantage would probably accrue were paying patients—we mean persons whose position in life demands that they should be surrounded by the comforts and domestic scenes to which they have been accustomed—provided for in some other way than that now in vogue. Public establishments of a superior class might be conducted on a scale and in a manner appropriate to such individuals; and although the stream of Professional emolument from this class of patients would for a time be diverted and flow in different channels, we cannot help thinking that there would be a gain on the side of the general public, not only on the score of economy, but also of efficiency.

New Poor-law Medical Appointment.—The Poor-law Board has appointed Dr. Markham its Medical officer and adviser for the metropolis, in addition to the appointment he now holds.

THE REPORT ON THE IRISH PRISON DIETARIES.

The Commissioners appointed by the Lord Lieutenant to inquire into the dietaries of the Irish prisons—Professor Stokes, Dr. Hill, and Dr. Burke—have just sent in a most admirable report, which we have read with a very great deal of pleasure. The whole subject is of interest in more than one way. The question of prison discipline is continually recurring, and in all probability will be long without settlement, and every one who has made himself acquainted with the important changes of opinion as to the uses and value of different varieties of food, cannot but see that in the present state of our knowledge anything like dogmatism is unwise. Just after the famine in Ireland, consequent on the failure of the potato crop, crime was rife, and many had suffered so much that they were willing to undergo a term of imprisonment to obtain a diet somewhat better than they could get out of doors. How poor this living must have been is shown by the fact that the wished-for diet consisted of two meals a day—the one of 8 oz. of meal in the form of stirabout, with 1 pint of new or butter milk; the other of 1 lb. of bread and 1 pint of milk. Various changes were made, until at last in 1854 the dietary was settled at 8 oz. of meal as stirabout and ½ pint of milk for breakfast, and 14 oz. of bread and 1 pint of new milk for dinner. This was for adult males; the females had rather less. Such has been the diet up to the present time, when, an outcry having arisen that it was insufficient, the present investigation was instituted. The Commissioners set about their work in an admirable fashion. They did not constitute themselves a body of scientific inquirers to ascertain how many grammes of azote or how many grains of carbon were necessary for the support of a full-grown man. Were it true that either of these substances, when given in a state of purity, is capable of nourishing the system, we might accept this method as a truly scientific one; but every one knows they do not, so that, after all, it is the plan of combination which is the essential thing. In such matters there is no guide save experience—so say the Commissioners—and we cordially concur with them. Various faults have been found with regard to the Scotch and Irish prison dietaries Apart from the scantiness of the latter, it has been said that it is not sufficiently varied, which is quite true, and that animal food is not allowed, which is also true, but then, say the authorities, the milk makes up for the latter deficiency. But is a diet containing a large proportion of carbonaceous material a good one under the circumstances? This diet, says one set of reasoners, is the ordinary diet of the country; the prisoners are not accustomed to better. True, but there is a great difference between the two cases. In the one, the man is at liberty, and, much in the open air, very likely undergoes a good deal of exercise in it; in the other, the individual is confined to a small cell, and has but a limited amount of exercise in an open yard. Now, without entering into scientific matters, it will be admitted that the carbonaceous matters swallowed along with the milk, and constituting the chief part of the diet, find their way out of the system as carbonic acid—in fact, such a diet implies a high rate of oxidation, such as is not likely to be effected in a prison, however well ventilated. Again, the site of the prison, whether in the open fields or in a confined town, is all important in this matter. We cannot conceive that any one would recommend the diet of the Perth Penitentiary for the prisoners at Coldbath-fields. This is corroborated by the Commissioners' statement that in the Dublin gaols extra diet had been ordered in many cases. This is one of the difficulties in the way of a uniform system to be applied to all prisons in the kingdom.

There are many other interesting points in this report [illegible] of punishment, to which we should be glad to refer, but cannot now, although we hope to do so soon; we shall, therefore, give a sketch of the Commissioners' proposals. First, then, they advise a third meal, as the present interval between dinner and breakfast—viz., eighteen hours—is too long, and calculated to injure the prisoner, especially if he has to work before breakfast. Secondly, a more varied dietary and the addition of vegetable soup with meat in it, on certain days of the week, for dinner. The bread they recommend to be made of whole meal, and the stirabout of oatmeal, or partly of Indian corn flour. They also propose that, should the English system of hard labour be introduced instead of the present system in Ireland, which seems to be somewhat lax, the prisoners be divided into four classes, like those in English prisons.

Again, and in conclusion, we state that we esteem this as a State paper of great value, at once truly scientific and thoroughly practical. We congratulate Drs. Stokes, Hill, and Burke on the result of their labours.

THE WEEK.

TOPICS OF THE DAY.

Sir James Simpson's proposal to stamp out small-pox and other contagious diseases by isolation, which was first published in this journal, is attracting the attention it most certainly merits. The standing objection to such a plan must be that it can only be fully carried out by a system of sanitary espionage and despotism to which it would be impossible to get the public to submit. Nevertheless, the effect of Sir James Simpson's logical and unanswerable argument, enforced as it is by so high an authority, cannot but be beneficial. People who read his pamphlet will learn that the spread—nay, the very existence—of these diseases depends, in the majority of instances, upon circumstances which are under human control. As this belief becomes fixed in the public mind, persons will voluntarily adopt those methods of isolation and precaution, on the occurrence of infectious and contagious diseases, which are now, at least amongst the less educated classes, generally neglected. At the same time, it must be remembered that the history of epidemics has shown the insufficiency of popular attempts to check a wide-spreading disease by isolation alone. The necessity of shutting up infected persons and houses was the leading idea in the minds both of governments and people in nearly all historical periods of contagious pestilence. No doubt such isolation was not, and could not be, complete, but completeness and perfection are rendered more difficult by the increase of population. The success of past attempts in this direction—putting aside the cattle plague, where the poleaxe and spade could be indiscriminately used—has not been encouraging. On the other hand, isolation, supplemented by the resources of modern science, is a very different thing from isolation in "aire corrected by divers preservative medicines," and enforced by watchers and searchers.

At the meeting of the Pathological Society on Tuesday last, the President announced that he had received from Professor Hallier, of Jena, the observer who last year published the statement that he had traced a constant connexion between cholera and the existence of a certain fungus in the intestinal canal, a letter, in which he communicated the fact that he had established, as he believed, a connexion between six diseases and different species of fungi. These are, variola and the allied diseases, variola ovina and vaccinia; measles, typhus, and typhoid fevers. In the three latter the fungi were discovered in the blood. In the three former Mr. Simon presumed that the fungi were found in the vesicles or pustules. This fact was stated to have been verified by the examination of specimens taken from different sources and in different epidemics. If confirmed, it is difficult to overrate the interest and value which attach to it.

The matters in dispute between Dr. Eastlake and Dr. Edmunds will, we believe, be brought before a special meeting of the Metropolitan Branch of the British Association to be held at the rooms of the Medical Benevolent College, Soho-

square, on Tuesday next. The Profession will then hear both sides of the transactions which led to Dr. Eastlake's resignation of his appointment as Physician to the British Lying-in Hospital.

The Swiney Lectureship on Geology is vacant, and the trustees of the British Museum advertise that they are about to appoint a lecturer. He must be a Doctor of Medicine of the University of Edinburgh, and, we presume, a good geologist. The first course of lectures is to be given in Edinburgh. The salary is £144 a year.

Amongst the numerous criminal cases reported during the past week, not the least revolting was that of a child in Gray's Inn-road, who was cruelly maltreated by her mistress, Ann Radcliffe, who has been found guilty of the crime, and sentenced to five years' penal servitude for it. The Recorder, in charging the jury, is reported to have said that, as the child's skin had not been lacerated, but only violently bruised in various parts, the jury must confine their attention to the count in the indictment which alleged the intent to be to do grievous bodily harm. We can hardly suppose that the prosecution would have failed had th ere only been a count of "wounding" in the indictment. We believe that the legal definition of a wound is much wider than the Medical one, and that it has been held to include such injuries as simple fractures, ruptures of internal organs, and any solutions of continuity whether internal or external.

A case occurred lately at the Tothill-fields Female House of Correction which, we think, should not pass without notice. It is that of a lunatic woman, who, after having been in confinement in an asylum, was returned to her friends as cured, but who made her escape from them and was taken before a magistrate for vagrancy, and, being unable to give a satisfactory account of herself, was sentenced to three months' hard labour as a rogue and a vagabond. She was an old woman, and was set at first to pick oakum, but had been latterly employed in needlework. One afternoon, on the subwarder going into her solitary cell, she was found hanging by the prison shoulder shawl, which she had fastened round her neck, from the bell handle. She was taken down, but died immediately. She had been under Medical treatment, but insanity was not suspected, although the warder said she appeared childish. The coroner's jury contented themselves with a verdict of suicide under temporary insanity, but we cannot think that the verdict quite met the case. We should like to know whether the poor old woman underwent any special Medical examination on her reception into the gaol, and whether it is usual to keep "childish" old women, about whom nothing is known, and who are condemned to prison simply because they seem to have no one to take care of them, in solitary confinement.

From the letter of Mr. Speke's Physician, published in the *Times* of Wednesday, it seems that Mr. Speke's "depressing form of hypochondriasis" which led him to absent himself had been aggravated by adverti ing quacks from whom he sought relief. We are glad that this fact has been made public, as at least his case may serve as a warning to other weak-minded people.

An Indian Assistant-Surgeon of 1833 calls public attention to the dilatory conduct of the India Office in reference to the Indian Army Funds. Of all these funds, none is settled except the Madras Military Fund. In consequence, it is said, of the "transition state" caused by the amalgamation between the services, the old subscribers to the Bombay Medical Fund are still kept out of all benefit from an accumulated sum of £60,000. It may be called simply an instance of red-tapism, but if the India Office goes on in the present course of masterly inactivity, trouble will no doubt be saved, for many of the claims on the fund will be discharged in the ordinary course of events. Worn-out Indian officers are not a long-lived race.

We hear that the late Dr. Daubeny left the whole of his scientific library and apparatus in trust to his old college, St. Mary Magdalen, Oxford, together with £1000 to provide a salary for the curator. The apparatus is said to be exceedingly extensive and valuable. We believe that Magdalen College will add something to the money value of the curator's stipend, and will enact rules by which this valuable gift will be made available to the students of the University.

According to the *Northern Express*, Miss Burdett Coutts intends to give the Londoners a new park at Highgate. For this purpose, it is said, she has been for some time buying up land there.

A movement has recently taken place in Dublin to reform what may be called Medical pluralism. The practice of holding appointments in more than one clinical Hospital appears to have prevailed in Dublin to a far greater extent than in London. Undoubtedly, one such appointment is usually all that can be held for the real benefit of either teacher or pupils. The principle that a Physician or Surgeon should only retain one such appointment is now established, thanks to Sir Dominic Corrigan, at the Richmond Surgical Hospital of the House of Industry, and, thanks to Professor Haughton, the Board of Trinity College and the College of Physicians at Sir Patrick Dun's Hospital. The *Irish Times* states that the reform was first set on foot by Miss Kirwan, the Superioress of the Baggot-street Convent of the Sisters of Mercy, who has under her control the Jervis-street and Eccles-street Hospitals. In a manner which is very funny and intensely Hibernian, the same paper argues from the fact that this lady has instituted a reform which seems to have materially increased her patronage, that women should be admitted into the Medical Profession by examination at the London Apothecaries' Hall. The writer shows his knowledge of the subject when he states that there is no mystery in compounding drugs which a woman cannot master—as if the right to dispense medicine were the only one conferred by the English Apothecary's licence.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

The Echinodermata and the Annulata.

DURING the past week the group of the Echinodermata have formed the subject of these lectures. This class comprises eight divisions, five of which are *recent*—viz., the Echinidea, Ophiuridea, Holothuridea, Asteridea, and Crinoidea—and three *extinct*—viz., the Cystidea, Blastidea, and Edrioasteridea. Taking the common sea-urchin or Echinus as a type of the whole group, Prof. Huxley gave a full description of the organisation of this animal, and dwelt especially on its developmental history, sketching the singular mode of development of the adult form within its ciliated, bilaterally symmetrical, pluteiform larva.

Although it was difficult to imagine the Echinus, with its calcareous, box-like skeleton, as one of the same family with the jointed tapeworm or the Planaria, yet he believed that this was its true place, and that the analogies between the Echinodermata and the Annuloida were so great that they must be included in the same sub-kingdom. The following were the circumstances which led him to this conclusion:—

1. The bilateral symmetry of the larvæ of the Echinoderm and their ciliated bands, the only condition of animal to which these can be compared being the larval forms of some Rotifera which also have ciliated bands.

2. The development of the adult form of the Echinoderms within the body of the larva; the only parallel to this was to be found in the development of Nemertes in Pilidium.

3. Because there is developed from the *bilaterally* symmetrical larva a *radially* symmetrical adult body. This was analogous to what had been observed in certain Tænia larvæ.

4. The analogy between the ambulacral system of the Echinodermata and the water-vascular system of other worms.

Of the five recent divisions of this class, two have *pluteiform* larvæ, the Echinidea and Ophiuridea, and three have *vermiform* larvæ, the Crinoidea, Asteridea, and Holothuridea. The lecturer gave also a general description and comparative view of typical species of each division.

The next group of animals described were the Annulata. These were distinguishable from the Annuloida, on the one hand, by having a nervous system, consisting of a longitudinal chain of ganglia on the ventral surface of the body, *beneath* the alimentary canal; and from the Arthropoda, on the other hand, by the absence of articulated limbs, by having no true heart, and by possessing cilia. This group might be thus subdivided:—

1. Annelida
   - *a.* Polychæta, of which Serpula is an example.
   - *a.* Gephyren, ,, Sipunculus ,,
   - *a.* Oligochæta, ,, the Earth Worm ,,
   - *b.* Discophora, ,, the Leech ,,
2. Chilognatha.

Of the ordinary Annelida, some are *free* during life, as the common Earth-worm; others, such as the Serpula and Terebella, are tubicolous worms. They inhabit calcareous tubes, which they secrete or construct for themselves. Generally speaking, an ordinary annelid—the Polynoë for example—presents a body consisting of a number of distinct segments or somites, each of which bears a pair of primitive appendages or parapoda, which are furnished with *setæ* and *cirri*. A great many of these animals have no distinct head, but in the higher forms some of the anterior somites become fused together so as to form a head with eyes and tactile appendages. Sometimes the anterior pair of parapoda bend somewhat forward on each side of the mouth, and present a modification of their limbs approximating to the jaws of the Arthropoda. But they never present a modification of limbs into *true* jaws, as in the members of this class. In the tubicolous worms, the anterior part of the body is provided with some remarkable branched appendages, supported by a semi-cartilaginous skeleton. These serve the same physiolgical purpose as the branchiæ of higher animals.

The alimentary canal is very simple. The mouth leads into a pharynx, the lining membrane of which is converted into horny jaws, and the intestines pass straight back to the end or near the end of the body. They possess a distinct peri-visceral cavity, divided longitudinally by a mesenteric membrane; this cavity contains a corpusculated fluid which represents the *true* blood of these animals. They have no true heart or circulatory apparatus. The pseudo-hæmal vessels attain in some genera a great development, and are filled with *red* fluid. This gave rise at one time to the belief that they possessed red blood. But the redness of this liquid, unlike the redness of true blood, is *not* due to the presence of *corpuscles*. It is perfectly transparent, and may be either bright *red* or bright *green*. It is curious that it should present these two complementary colours. It contains *no* corpuscles. The vessels of this system have very thin and contractile walls, but they do not contract in a manner so as to drive the fluid they contain in any definite direction; it moves indifferently one way and another. The arrangement of the vessels of this system is very various; generally there are two long vessels running one along the dorsal and the other along the ventral surface of the intestines, and these are connected by transverse branches; commonly branches from this system are prolonged into the branchial filaments. This fluid seems to serve some very important purpose in their economy, but speculations on this subject have not hitherto been very successful. It is probably analogous to the water-vascular system of the Annuloida; but the difficulty that meets this suggestion is that these annelids possess another set of organs, the so-called "segmental organs," which are even more like a water-vascular system. The general arrangement of the *nervous system* is this—there are a pair of ganglia in each somite connected by commissural fibres, the anterior pair being also connected with a cerebral mass by a nervous ring round the gullet. From this cerebral mass nerves are given off to such sensory organs as exist. In the genus Sabella an interesting modification of this nervous system is found. The brain-mass is exceedingly elongated transversely, and two commissures proceed from each end of this elongated mass, which do not unite, nor do the ganglia in them, but they are connected by commissural cords. This appears to be an approximation to the type of nervous system found in the Trematoda. Most annelids possess eyes and tactile organs. The eyes are simple, and extremely multiplied. In one genus—Polyophthalmium—the eyes occupy a very odd position; there are a pair of eyes to every pair of legs, each leg having a distinct eye. The sexual organs are very simple: the sexes are usually distinct, and the ova and spermatozoa are developed simply from the wall of the body. These pass out from between the segments, and the ova thus become impregnated. The embryo leaves the egg as a little oval body provided with a circlet of cilia, and presents a form totally unlike that of the adult worm. The possession of free-swimming ciliated larvæ presents some affinities with the Echinodermata. In the earth-worm, however, the sexual organs have a much more complicated arrangement, and the embryo undergoes no metamorphosis.

The next division, the Discophora, or suctorial annelids, comprises the leeches, and differs much from the preceding. The common leech has a great sucker-like disk in the hinder part of the body. The anterior end is also capable of being expanded into a sucker. The body is divided into very distinct rings. These rings, however, do not correspond to segments; three or four of them go to a segment. They possess no setæ and no parapoda. Unlike other annelida, they possess no peri-visceral cavity. The alimentary canal consists of a very dilatable pharynx, provided with three semi-cartilaginous jaws, which have serrated edges, and produce that peculiar triradiate bite characteristic of the leech. The gullet widens rapidly into a stomach, and on each side it is provided with a number of sacculi, which grow larger and larger as they pass backwards—a provision eminently favourable to great distension. A small narrow intestine passes off from this, and ends on the dorsal side of the terminal sucker. The pseudo-hæmal system is enormously developed, and the segmental organs are very large. The nervous system consists of some twenty-three ganglia, the anterior pair being connected with a brain mass on the dorsal side of the mouth, from which ocular branches proceed to the eye-spots. Their reproductive organs differ from those of all other annelida, male and female organs being possessed by the same individual, with a vaginal sac and a protrusible penis. They differ also in the manner in which their eggs are laid. The leeches lay their eggs in holes or burrows in the earth, and they fabricate a cocoon by throwing out a gelatinous secretion from their surface, which they work up into a foamy condition by wriggling the body. Thus a closely fitting case is formed, into which they deposit their ova, and then pass out of it, and leave their ova in this sort of crust.

FEMALE NURSES IN MILITARY HOSPITALS.

THE *Pall-mall Gazette* observes that it is a matter of regret that the lady nurses in our military Hospitals are placing themselves in a false position, both with Medical officers and men; and that, whether rightly or wrongly, their interference has given rise to a good deal of irritation in various camps and garrisons. This is no new thing to us, as our readers may conclude from the frequent allusions to it in our correspondence columns, and from our own articles on the subject. The system of female nursing in military Hospitals in its present state is a mistake from beginning to end. It is only too well known that a vast proportion of the cases in a military Hospital are those in which female attendance is utterly inappli-

cable; but, so far as this objection goes, it could, of course, be easily obviated by proper regulations. The real grievance in the matter, so far as Medical officers are concerned, is that the nurses are practically irresponsible to them, and placed beyond their control by being organised into a separate department, the head of which, as Lady Superintendent-General, is virtually superior to all Medical officers with whom she comes in contact, by possessing the privilege of communicating direct with the Secretary of State for War. Many facts have come to our knowledge showing what a powerful weapon of defence and offence is thus placed in her hands, and how vigorously it has on occasions been wielded, to the discomfiture of all opponents. But in addition to this, it is reported that there is another influence at work which from its nature puts the Superintendent-General of nurses in a position almost unassailable even by a Secretary of State. All this must be altered before the system can be expected to work smoothly.

GAGGING IN THE NAVY.

A SEAMAN of H.M.S. *Favourite*, on the West India station, having died gagged, the officer who ordered, and the Master-at-Arms who superintended, the punishment, were lately tried by court-martial, and acquitted. The Court was presided over by Sir Leopold McClintock, and the members attached to their acquittal the recommendation that whenever in future the punishment of gagging is ordered, its infliction should be under the superintendence of a Medical officer. This would be a nice subject for a new Professorship at our Royal College of Surgeons, the chair to be held by a retired Medical officer of the Navy who by long experience should have acquired a thorough knowledge of the theory and practice of gagging. We wonder how many of the thronging candidates for the Naval Medical Service would select this subject as one to "go in" on for extra marks at the competitive examination. However, we are happy to say that the Lords of the Admiralty, more wise in their generation than their advisers, have preferred the total abolition of the punishment of gagging to adding such an insult to the already too numerous grievances of the Medical officers of the Navy.

THE FEVER AT TERLING.

THE accounts from this village are more favourable. The place seems at last to be well saturated with carbolic acid; in fact, so redolent is the air of its vapour that the inhabitants complain of its causing headache: strangers also going into the village experience a similar effect. Fresh cases are not now of such frequent occurrence, and those that do take place are of a milder character. The late coachman at Terling-place, who was buried on Wednesday last, died of phthisis, and not of fever. Of those employed in and about Terling-place, three females and six males have died. The Fever Hospital is now full, and the children at the school are all going on well.

With regard to the suggestion of Dr. Tibbits, of Clifton, in a letter published in the *Medical Times and Gazette* on the 18th ult., that the adulteration of the milk at the dairy farm with the foul water of the establishment might account to a certain extent for the sudden and simultaneous explosion of he fever, we know that Mr. Haviland made especial inquiries on this point, and saw no reason whatever for believing that the milk had been tampered with. The girl who was first seized at the dairy farm had just returned from a visit to Somersetshire, where she had been in the habit of drinking cider, but on her return she resumed her usual beverage, beer, which she said made her bilious and caused a slight diarrhœa, a frequent effect of the change from cider to beer drinking. From this indisposition she recovered before she was attacked with symptoms of typhoid fever. Beer-drinkers in Somersetshire sometimes resort to good strong sound cider for the purpose of checking the diarrhœa caused by over-indulgence in malt liquor.

The Vicar of Terling has written a long letter to the *Standard*, and in the last paragraph commits an act of injustice to the majority of the Medical men who have borne the burden of the epidemic, in his ill timed praise of Dr. Gimson, of Witham, who, he says, though not the parish Doctor, is assiduous in his attendance on the sick, adding voluntary and *unpaid* exertions to the labours of a large private practice. By him Medical aid has been chiefly supplied, and to him is mainly due the present useful organisation. Now, it is not for us to detract from the services of Dr. Gimson, for we know him to have worked well during the ravages of the fever. The Vicar's statement, however, is apt to mislead. If Dr. Gimson be not the parish Doctor, he is either assistant to, or partner of, Mr. Proctor, of Witham, who is the parish Doctor, and who has worked very hard indeed. Mr. Proctor has brought to bear a great amount of experience, and his practical knowledge of the disease has afforded much assistance to his juniors in the Profession. Mr. Barron has been most indefatigable in his attention, not only among private cases, but among the large numbers of the members of the different friendly societies who have been attacked by the epidemic.

THE FEVER AT THE CAPE.

WE have received some information as to the nature and causes of the disease lately prevailing at the Cape which may be interesting to our readers. The fever epidemic, which was so general over Cape-town, appears to be gradually decreasing, although it is still severe. The mortality has not been great, considering the number of cases. In the garrison the cases have been few, and those mostly of men who have visited houses in the fever-stricken districts. This immunity may, in a great measure, arise from the improved ventilation of the barracks, the filling up of the cesspits, and the general sanitary arrangements that have been carried on during the past two years. The fever is of a low continued type, and cases of both typhus and typhoid have occurred. Its infectious character is said to be slight, and appears to depend more on the habits and poverty of the people than on the essential nature of the fever itself. The close overcrowded rooms, the absolute and extreme poverty of the people, render them but too apt subjects for fever, living, as they do, in an atmosphere saturated with foul odours from dirty rooms, bad drainage, and a great deficiency of water. The municipality have lately had many of the houses throughout the worst districts white-washed and the drains improved, but already the limited supply of water is insufficient to keep the drains flushed; therefore, as the summer progresses, and the water supply decreases, the source of fever will be greatly increased, and all this from preventible causes, as ample stores of water might be preserved that now pass useless to the sea.

THE CLINICAL SOCIETY.

THE last meeting of the Clinical Society was signalised by a very sharp debate on Dr. Andrew Clark's paper on "Fibroid Phthisis." Before this came on, however, Mr. Thomas Smith showed a boy whose knee had been resected nine years before. The limb, although not of great beauty, being somewhat twisted owing to hard work, was one of much utility, as the boy could walk about with ease. It was but slightly shortened. As Dr. Clark's paper had been read at the previous meeting, he had caused an abstract of it, along with his conclusions, to be printed for circulation among the Fellows. Dr. C. J. B. Williams led off the debate by some admirable observations, the fruits of his great experience, and was followed by Drs. Greenhow, Anstie, Powell, Marcet, Sutton, Ringer, and Pollock. These mostly referred to the nature of the disease, and there was a smart passage of arms between Dr. Pollock and Dr. Clark, the former holding that the fibroid deposit was conservative, the

interstitial tubercular. To this Dr. Clark objected that there were no indications whatever of tubercle, only of caseous pneumonia. Dr. Julius Pollock very pertinently asked if anything had been done to ascertain the curability of the disease, but very little information on this point could be obtained, experience being as yet too limited.

SEWAGE VALUE.

Mr. Morton has published a most interesting account of the "agricultural experience of 30,000 tons of London sewage in 1867" at the Lodge Farm, Barking. Impartial common sense stamps every line that Mr. Morton writes on the subject. On the one hand he rebukes the "ignorant impatience" which expects that sewage shall yield up its treasures without care or skill on the part of the cultivator:—

"Sixpence worth," he says (page 9), "of the nitrogen or ammonia, whether of guano or of sewage, or of the phosphorus, whether of bone-dust or of sewage, will not necessarily create sixpence worth of additional fertility by its use in agriculture. It may do this or more in skilful hands, but it is quite as possible that it may be thrown absolutely to waste, or even made mischievous and injurious."

He gives a most valuable account of the mistakes committed in laying out the experimental farm at Barking, and confesses that not all the sewage *applied* has been profitably *used*.

"But," he adds (page 28), "I believe we have proved that every 100 tons of sewage *used* during the past year have actually produced, under circumstances of average favourableness, 1 ton of grass over and above the quantity needed to pay an ordinary rent and an ordinary farm labour-bill. What that ton of grass is worth depends, of course, upon the use that is made of it. During the height of the summer we sold about £20 worth of it weekly, partly delivered in London, 8 or 9 miles off, at 23s. per ton, to cowkeepers; and partly sold at home at 1s. and 1s. 3d. per perch, equal to from 18s. to 20s. a ton, upon the land. I need not go into our experience on the farm as large cowkeepers, by which an attempt was made to realise some of the experience of the London cowkeepers, who were able to pay us 23s. a ton for the grass we sold them. That is another subject altogether. Whether our business as cowkeepers was profitable or not, the fact remains that under the circumstances we grew 2488 tons of this grass on very poor and gravelly soil off 55½ acres with the help of sewage only, and 61 tons per acre off that portion of it which alone represented fair and average circumstances."

He admits that the sewage was occasionally foul; still it is clear that, with some discretion as to quantity, the land may be enriched and the nuisance suppressed.

THE GERM THEORY OF SUPPURATION.

The reading of Mr. W. Adams's paper (which in part appears in our columns) at the Medical Society on Monday night gave rise to a discussion on the antiseptic treatment of wounds, which was interesting to both theorists and Practitioners. Especially worthy of notice were the observations made by Dr. B. W. Richardson upon Pasteur's germ theory of fermentation, since they embraced a clear and comprehensive refutation of the hypothesis so pertinaciously maintained by the French chemist. There can be little doubt, as Dr. Richardson remarked, that M. Pasteur's theory has found a vast number of advocates, and it is probably equally true that it owes its success to the fact that it is associated with the "vital" force theory. Pasteur has found that there are associated with certain fermentive processes a number of minute vegetable organisms belonging to the genera *Vibrio* and *Bacterium*, but he has utterly failed to demonstrate that the two facts—the fact of fermentation and the presence of these organisms—stand in the intimate relationship of cause and effect. Numerous experiments have demonstrated that suppuration—which may, for the sake of argument, be regarded as a fermentive process—may proceed in the entire absence of all vegetable and animal organisms, but it is impossible to show that in the absence of oxygen it could be carried on. Dr. Richardson asks, if the ordinary fermentive processes of albumen may take place in an atmosphere of chemically pure oxygen, why need we evoke the assistance of a complex hypothesis to explain a fact sufficiently intelligible on ordinary physical grounds? If we apply the germ theory to the oxidation of animal substances, how shall we deny it to mineral ones? And are we to believe that the oxidation of a substance like phosphorus is dependent on the operation of bacteria and vibriones? Such is the merely physical argument. The testimony afforded by the subcutaneous method is fully discussed in Mr. Adams's paper, and we need refer to it no further. There is one point, however, which is strongly corroborative of the opinions held by Mr. Adams and Dr. Richardson, and that is the happy result obtained in the treatment of wounds by a vacuum. If germs alone were necessary to promote suppuration, it is clear that the removal of air from a wound could not protect the surfaces, since a germ the thousandth part of a pin's head in size would be sufficient to effect all that Pasteur contends for. Yet in the hands of Maisonneuve and others the treatment of wounds by "pneumatic occlusion" has recently been productive of the most favourable results. The whole subject is one of the most attractive and important in the wide range of modern pathology, and till further evidence is adduced a definitive conclusion would be unwise.

FROM ABROAD.—FATAL JAUNDICE DURING PREGNANCY—MEDICAL EDUCATION IN GERMANY AND FRANCE.

Dr. Davidson, Assistant-Physician in the Breslau Midwifery Clinic, has recently published a case of fatal jaundice occurring during pregnancy, which is of considerable interest. A strong, hearty, unmarried primipara, aged 26, was admitted into the clinic seven months' advanced in pregnancy, and was speedily delivered of a dead fœtus, which was strongly jaundiced but in nowise putrid. The mother had only felt at all unwell for a few days, her face exhibiting jaundice three days before admission, the urine then assuming also a deep brown colour. When admitted, she had become intensely jaundiced. Her pulse was 78, respiration 18, and temperature 36·5°, and she exhibited no urgent symptoms. An hour after delivery atonic metrorrhagia came on, which was arrested by compression of the uterus and cold injections. She soon afterwards, however, became restless and had obstinate vomiting. No pain ensued on compression in the region of the liver, but percussion indicated a remarkable decrease in its volume, especially of its left lobe. There was also almost complete suppression of urine. Some cephalic symptoms were present, and the patient died in a state of coma and collapse within twenty-four hours of her admission. At the autopsy the flow of bile was found to be obstructed by a firm plug of mucus in the intestinal portion of the ductus choledochus. But the most remarkable feature was the diminution in the size of the liver, forming a fine example of Rokitansky's acute yellow atrophy of that organ. Dr. Davidson enters into various speculations as to the cause of so sudden a death, which will be found detailed at length in the *Monatsschrift für Geburtskünde* for December.

Professor Lorain's interesting pamphlet on the influence of laboratories on Medical education in Germany, to which we drew attention in a recent number (January 18, p. 73), has excited a good deal of remark and not a little animadversion in France. Not that there is there just now much opposition to the admission of German ideas *per se*, these indeed being received by many in so free-and-easy a manner as to have given rise the other day to a good *mot* on the part of M. Gubler. Presenting a recent work to the Academy by M. Rommelaere, on uræmia, which is literally overflowing with references to German works, he observed that "the author of the work is a Belgian, although one might readily believe him to be a Frenchman, seeing that he quotes no one but Germans."

It is, however, seriously doubted by many whether this elaborate laboratory instruction pursued in Germany, and which M. Lorain is so anxious to see introduced into France, is that best calculated to form good Practitioners; and M. Lorain himself admits that he found in Germany that the diagnosis of disease was in a very perplexed condition, and its treatment a mere development of polypharmacy. A writer in the *Montpellier Médical* has made some apposite observations on the subject:—

"By all means let us borrow, wherever they present themselves, real discoveries and true progress. But let us add these to what is the gain of the past, to Hippocratic and Clinical Medicine, the sole and true Medicine. Alas! that is out of fashion now. We have discovered that the German Physicians pass their lives in laboratories, in the midst of microscopes and living animals, studying the art of healing far away from the sick man, and it is demanded that our Faculties should be fashioned on the model of their Universities. 'Medical study through the agency of laboratories' is the cry of M. Lorain, and by that he understands laboratories for pathological anatomy, histology, experimental physiology, etc.; but as for us, we reply, on the contrary, that the great laboratories for Medical students are the Hospitals. If the four or five years which they pass in the study of Medicine are to be employed in making physiological experiments on animals, or in microscopic preparations, when are they to learn how to feel the pulse, to practise auscultation, or to dress wounds? Still more, these studies with the microscope and living animals would not allow the pupil the time necessary to learn his descriptive anatomy—the gross and vulgar anatomy, as we have heard it called. So that when asked for the description of a bone, he will give you a masterly dissertation on the structure of the osseous tissue, forgetting neither the osteoplastes nor the chondroplastes, but he stammers wofully when you take him on the apophyses and the cavities. Now, who would venture to question which of these two orders of knowledge is the most necessary to the Practitioner? That there should be physiological laboratories we are well content; and that men, like Professor Virchow, should shut themselves up in them from morning to night with a limited number of industrious pupils, who are desirous of making these beautiful special studies the objects of their lives, well and good. But that the mass of students should be forced into a similar course we energetically protest against."

However, M. Lorain's account of that active spirit of scientific investigation going on in Germany is highly interesting; and what even the pettiest governments are there doing ought to cause a deep sense of shame in such powerful countries as France and England. The chemical laboratory at Heidelberg has cost Baden about 100,000 thalers, and it contributed £2000 to supplying Helmholtz with the necessary instruments and apparatus for his physiological laboratory. It must be remembered, however, that even in Germany itself this elaborate scientific instruction is not deemed sufficient to educate men as Practitioners, although it may obtain for them the diplomas of universities enabling them to become the instructors of others if they choose to confine themselves to this career. But if they desire to practise their profession, they are not allowed to do so until they have undergone a rigorous and practical state-examination, in which other qualifications than those of the mere *savant* are tested. We may observe, by the way, that this fact should be borne in mind in deciding upon the validity of the claims put forth by holders of mere diplomas of German Universities (however honourable these in themselves may be) to practise Medicine in this country without undergoing examination. It is at all events a claim that would not be allowed them in their own.

We suspect M. Lorain is a little apt to regard foreign arrangements with too favourable an eye, seeing that he gives us the credit in this country of properly appreciating and rewarding our learned men—a fact, we believe, quite new to most of us.

"I do not wish," he says, "to slander my country, and I know that its governments have often largely recompensed persons who have become celebrated by their success in science. But politics seems to have contributed to these largesses more than national gratitude. Moreover, a *recompense* is an alms, and it does not suit certain proud spirits to be recompensed. A recompense seems to place him who receives it in the position of one obliged, and to some extent it cramps his independence. A titled *savant*, raised to administrative functions, and become an official support of a system of government, sinks from the rank of a seeker after the ideal to that of a mere disciplined authority. Sickness or old age are the only excuses for the *savant* who accepts of dignities beyond the pale of the University or the laboratory. We must accustom ourselves to consider the *savant* as having the *right* of being assisted by society, since it is for society that he labours. If Ampère and Arago had lived in England, they would have been there surrounded with consideration, enriched, and furnished with every means of propagating and radiating on the nation their grand discoveries. History may, perhaps, little care to know whether Newton left a large fortune to his heirs, but she will feel grateful to England for having placed him in a position in which he was enabled to develope his faculties and produce so largely It is not desirable to quote contemporary names, but I may say, without offending any one, that England honours and rewards her *savants*, and that Germany has entered upon that course of justice and good sense. I cannot say so much for France."

Alas! neither can so much be said with truth of England.

THE CLUB DISPUTE IN BIRMINGHAM.

(From a Correspondent.)

The Club-Surgeons' grievance is on the point of being redressed. This satisfactory result has been wrought by the decided course of action which the Club-Surgeons themselves have taken in the matter. They have drawn up a document which sets forth the justice of their claims, which has received the sanction and signatures of the whole of the Profession. Amongst other articles in it, there is one which binds them to refuse the Surgeoncy to any sick club under the sum of 5*s.* per member per annum, and to discountenance and shun those in the Profession who, after having signed the compact, break it. The question, therefore, of club remuneration now lies in a nutshell, and amounts in reality to this much:—That if clubs desire to have the services of Surgeons they must pay the sum which they require, or do without the honour of their connexion—an alternative which would very quickly deprive them of all the value and attraction which they possess for their members. The fact that such a combination of the members of the Profession can be formed for the purpose of maintaining its dignity, and of securing to its less favoured members fair play and a just recompense, is a subject for congratulation, and bears pleasing testimony to the good fellowship and unanimity of opinion which exist amongst our *confrères* in the provinces, and which we have always endeavoured to foster and inculcate.

REVIEWS.

Archives de Physiologie Normale et Pathologique. Publiées par MM. Brown-Séquard, Charcot, Vulpian. No. I. Janvier—février 1868. Avec cinq planches. Paris: Victor Masson et Fils. Pp. 206.

The above is the title of a new journal of physiology published at Paris under the joint editorship of Drs. Brown-Séquard, Charcot, and Vulpian. It is to appear every two months. The first number promises well. It is admirably printed in large clear type and on stout paper, and the plates at the end of the number are very carefully executed. It contains eleven original articles and a review of some recent German publications on that highly interesting subject, traumatic fever.

The first article is by M. Prévost: it is an instalment of his researches on the "Anatomy and Physiology of the Spheno-Palatine Ganglion." He promises to throw some new light on its texture and function. His experiments have been made chiefly on the dog. In the present number he describes the anatomy of this ganglion in that animal, and compares it with that in the cat and in certain of the Rodentia. He reserves for a future contribution the conclusions to which his comparative researches have led him.

M. Lannelongue contributes a paper on the "Circulation in

the Walls of the Heart." The sum of his observations tends to prove that the blood returned to the ventricles by their veins is not poured into the right auricle *at the same time* as the venous blood from the walls of the auricles. He attempts to prove that the venous blood from the ventricles is poured into the right auricle by the coronary vein during the ventricular systole, but that the blood in the walls of the auricles is returned by a special set of veins into the cavity of the right auricle after the ventricular systole—viz., during the systole of the auricles. He supports this view by elaborate anatomical details, into which we cannot now enter.

The third article is the commencement of a "Memoir on the Movements of certain Organic Bodies on the Surface of Water, and their bearing on the Theory of Odours," by M. Liégeois. This portion of the essay is devoted to a consideration of the nature of the movements that are observed when small pieces of camphor are thrown on the surface of water; but the author does not favour us, in the present number, with any of his views as to the application of this well-known phenomenon to the explanation of the theory of odours. We also observe with regret that M. Liégeois does not notice the labours of our own countryman, Tomlinson, on the movement of odorous bodies.

Dr. Félix Guyon sends some observations on the "Arrest of the Circulation in the Carotids during Prolonged Efforts." His observations have been made chiefly on parturient women during the last expulsive efforts of labour. We give his own account of one of the cases he watched:—

"In the last few minutes which preceded expulsion, the face, under the influence of the efforts which were being made, became red, or nearly purple; the subcutaneous veins of the neck and face could be traced beneath the skin; the lower part of the neck increased in volume; the lobes of the thyroid body, scarcely apparent a few moments before, increased in size, and caused a considerable protuberance. *The pulsations of the temporal artery, at first regular and normal, then irregular and more feeble, became completely suspended.* In an effort which lasted ten seconds we noticed a suspension of the beatings of the carotid which lasted four seconds, and in an effort which lasted from fifteen to sixteen seconds we noticed a suspension of seven seconds. The pulsations of the radial were irregular and very feeble during these efforts, but they never disappeared completely. Immediately the woman, by cries or by respiratory movements, put an end to the effort, almost at the same moment the pulsations of the temporal were renewed, a little more frequent and a little stronger than before the effort."

This phenomenon is only observed during *silent* efforts. It is essential that the glottis should be completely closed. This arrest of the circulation in the carotids, M. Guyon believes to be due to the pressure of the enlarged and distended thyroid body on those vessels. During prolonged *silent* effort this gland becomes filled with venous blood, the return of blood towards the heart being retarded The larynx and hyoid bone are fixed, and the muscles of the neck are contracted; and as these, with the cervical fascia, form a firm musculo-membranous case surrounding the thyroid body, this body is pressed back against the vertebral column, and is only free to enlarge behind. Thus the carotids get compressed against the vertebral column by the lobes of the thyroid body, and this compression may be carried so far as to produce a momentary arrest of the circulation in them. This may be looked upon as a natural conservative and compensatory function of the thyroid. The return of venous blood from the heart being arrested or retarded during the prolonged effort, the thyroid gland enlarges, presses on the carotids, and arrests or retards the arterial flow towards the brain, and so prevents dangerous congestion of that organ.

We have an interesting paper by M. Ranvier on "Osteitis, and on Caries and Tubercle of Bone." In considering the conflicting views that have from time to time been put forward to account for the absorption of bone substance in osteitis, M. Ranvier pays a striking, though apparently an unintentional, tribute to the doctrine of vitality maintained by our own distinguished physiologist, Dr. Lionel Beale; for, discarding all the hypotheses which have hitherto been adopted in order to explain this phenomenon, he shows that when the so-called true bone corpuscles are dead the bone tissue is no longer absorbed, such absorption depending on the vitality of the bone. "En effet, pour que la résorption de l'os ait lieu, il est indispensable que celui-ci ait conservé toute sa *vitalité*, et dès lors il ne faut plus aller chercher des causes extérieures. En effet, lorsque les corpuscules osseux ont subi la regression graisseuse, la résorption des trabécules ne peut plus s'effectuer."

The first and essential characteristic of osteitis is the formation of a number of embryonic cellules (Beale's germinal matter) at the seat of irritation, and it is by their agency that the absorption of the bone substance is effected. The author does not notice the researches of Tomes and De Morgan on the absorption of bone.

As to the true cause of caries, M. Ranvier believes that fatty degeneration of the osseous corpuscles is the principal and the first in order of time, and that inflammation plays only a secondary *rôle*. "La carie a deux périodes bien distinctes. Dans la première, *les corpuscules osseux subissent la regression graisseuse, sans qu'il y ait eu le moindre phénomène inflammatoire.* Dans la seconde, les trabécules osseuses frappées de mort dans leurs éléments cellulaires forment autant *de petits corps étrangers, et autour d'eux se détermine une inflammation suppurative.*"

We have not space to follow M. Ranvier in his interesting observations on the occurrence of tubercle in bone. We have not the least doubt that he is quite correct in thinking that the deposition of tuberculous matter in the tissue of bone happens much more frequently than is supposed.

"Tubercle studied especially in its Relation to the Blood-vessels" is the subject of the next article by M. V. Cornil. MM. Charcot and Bouchard commence an important contribution on the "Causes of Cerebral Hæmorrhage." Their principal object appears to be to show that hæmorrhage into the cerebral hemisphere is, in the majority of cases, caused by the rupture of small "miliary" aneurisms in connexion with the minute cerebral arteries. They have examined the state of these vessels and of the clots in a great number of cases of death from cerebral hæmorrhage, and in a very large proportion they have found these miliary aneurisms existing, and one or more ruptured in connexion with the clot. They also state that though the great majority of these cases were observed to occur in persons of very advanced life, and therefore accompanied with atheromatous degeneration of the arterial tunics, yet that they have also discovered them in cases which have happened in much younger persons—from 25 to 40 years of age—and they are indisposed to regard these miliary aneurisms as caused by atheromatous degeneration of the vascular coats, but rather as the result of an inflammation of the external arterial tunic (*périartérite*).

There is also a valuable article by Vulpian on the "State of the Sensitive Nerves and of the spinal and sympathetic ganglia in cases of induration of the posterior columns of the cord with atrophy of the posterior roots of the spinal nerves." This communication is supported by the history of several cases. There is an immense amount of important matter in this paper, and for which we must refer our readers to the journal itself.

Dr. Brown-Séquard publishes a short paper on the "Immediate Arrest of Violent Convulsions by the influence of the irritation of certain sensitive nerves." This contribution is very brief, and must be looked upon as an *avertissement* that the author is going to say a great deal more on this subject at some future period.

These observations were suggested by the fact that in certain cases of rigidity and convulsions of the lower extremities, associated with disease of the lower part of the spinal cord, sudden flexure of the great toe was attended with a cessation of the rigidity and convulsions. Dr. B. Séquard sees in this circumstance three facts to be in some way connected:—1. An excited state of the dorso-lumbar nervous centre, producing rigidity and convulsions of the lower limbs. 2. An irritation of the similar nerves in the great toe propagated to the same region of the spinal cord. 3. A cessation of the spasmodic movements under the influence of a change produced in the lumbar enlargement of the cord by irritation of the nerves of the great toe. He considers this action analogous to the arrest of the respiratory movements by irritating a certain part of the medulla oblongata, and the cessation of the action of the heart on irritation of the pneumogastric. We await that full development of the clinical and biological importance of these views which the author promises to favour us with shortly.

Dr. Charcot calls attention to "certain affections of the joints which appear to depend on some lesions of the brain or spinal cord." He narrates several cases in which the elbow or the knee-joint became *suddenly* affected in patients suffering from progressive locomotor ataxy. He points out that in these cases the joint is attacked suddenly, without any local

injury or constitutional tendency to gout or rheumatism, or any peculiar diathesis which is recognised as conducing to disease of the articulations. There is rarely much pain in the affected joint, but there is considerable *hard* swelling not pitting on pressure like ordinary œdema. The joint is immovable, or is bent with great difficulty. The disease appears to involve chiefly the ligaments and cartilages, but sometimes even the ends of the bones, and in one case there was actual dislocation of the joint. He regards these affections as caused by the influence of the diseased nervous centres over the nutrition of the parts attacked. His observations on this subject are not concluded in the present number.

The last article is by M. Levin; its subject is the "Physiological and Therapeutical Action of Cafeine."

In this review we have not attempted a complete analysis of every article; to do so would have taken up a great deal more space than we have at our command. We have only attempted to indicate the principal bearings of each contribution. In conclusion, we heartily welcome the first number of these *Archives* as a very valuable addition to our periodical Medical literature.

Circumscribed Abscess of Bone. A paper read before the Harveian Medical Society. By T. Carr Jackson, F.R.C.S., Surgeon to the Great Northern and the National Orthopædic Hospitals. London: Robert Hardwicke. 1868.

As a general rule, we do not specially notice the separate publication of a paper that has been read before any of our Medical Societies, but we make an exception in favour of this excellent, unpadded little pamphlet by Mr. T. Carr Jackson, partly on account of its intrinsic and sterling worth, and partly because we published, on February 15, a case of abscess in the head of the tibia treated by trephining, from the Hospital practice of Sir William Fergusson, and, as the result in that case was not so happy as in Mr. Jackson's and Sir Benjamin Brodie's cases, it may give an unfortunate and untrue impression as to the value of the treatment adopted. Mr. Jackson gives a simple but very clear and quite sufficiently full account of three cases of circumscribed abscess of bone which have come under his care, in all of which the treatment by trephining was followed by the happiest results, and we recommend them to the study of our Professional brethren. They are very good instances of happy self-reliance in diagnosis, and judicious boldness in treatment. The narration of the cases is preceded by a short history of the discovery of the disease and its appropriate treatment, by the late Sir Benjamin Brodie, and it may be observed here that Mr. Jackson correctly stated that Sir B. Brodie's first patient "lost his limb and his life," while the reporter of Sir W. Fergusson's case, above alluded to, says that Sir B. Brodie's patient got well. The error has arisen, no doubt, from the reporter's having consulted only the early edition of Sir B. Brodie's essays; in his collected works, vol. ii., chap. xi., p. 312, an account of the termination of the case will be found. Soon after the operation the patient became excessively irritable, restless, and talkative; in the evening there was hæmorrhage from the stump; the previous bad symptoms became aggravated, with extreme rapidity of pulse, and death took place on the fifth day. Mr. Jackson supplements the statement of his cases with concise, good, and clear observations on the nature, history, symptoms, and treatment of the affection. Both Mr. Jackson and his patients may be congratulated on his having met, within a short time, all these cases of a somewhat rare malady.

FOREIGN CORRESPONDENCE.

FRANCE.

THE ANTHROPOLOGICAL CONGRESS OF 1867.

(From our Special Correspondent.)

Paris, January 15.

(Continued from page 214.)

II. The fact that caverns have been, in prehistorical times, the abode of man seems no longer to be doubted.

M. Ed. Lartet divides these primitive habitations into three classes. The most ancient are those in which the bones of the mammoth, the rhinoceros, the *Ursus spelæus*, etc., are found together with the vestiges of man. Those which come next in chronological succession are principally characterised by the remains of the reindeer; the evidences of human industry, stone implements, weapons, etc., are of a more advanced character than those which belong to the most remote antiquity. The most recent of all are filled with the bones of species which still exist; they are rich in tools of a more perfect construction, and in their later periods (which probably coincide with the earliest Lake cities) they exhibit some specimens of polished stone.

M. Desnoyers gave a long and interesting account of the formation of caverns by geological causes, and the various modes in which the remains of animals have been conveyed there. He admits simultaneously the three different explanations which have been brought forward:—1. The action of torrents; 2. The interference of carnivorous animals; 3. The presence of man.

Whether these caverns were used as habitations or places of burial is a question on which the members of the Congress did not seem to agree. On one point they were, however, unanimous; it was universally acknowledged that cannibalism prevailed in the age of polished stone.

III. A long and interesting debate, which we shall not attempt to report, took place on the subject of megalithic monuments. Certain members expressed the opinion that these monuments of a very simple and rude character might have been simultaneously or successively constructed by various races in different countries, without any connexion having ever subsisted between them. Others considered dolmens as belonging to a higher state of civilisation than that of the stone period. M. Henri Martin, the historian, spoke in favour of this view. M. de Mortillet and M. Bertrand maintained the contrary.

IV. The introduction of bronze into Western Europe is attributed by M. Nilsson to the Phœnicians. This view was contradicted by the majority of the Congress. M. Desor said that M. Nilsson might be right as far as the northern regions of Europe are concerned, but that such was certainly not the case as regards the Lake cities of Switzerland, in which the fabrication of bronze implements is at first found to exist in a very rudimentary state, and rises by degrees to a high state of perfection. M. de Mortillet declared that he had arrived at the same conclusion with respect to the Lake cities of Italy.

Professor Broca expressed some views on the chemical composition of these bronze objects which led to a long and animated discussion.

The Lake cities next attracted the attention of the Congress. Some splendid collections of Lake specimens were exhibited on this occasion. The subject which was principally attended to was the fabrication of glass, its presence in the Lake deposits, and its probable origin.

V. The iron period was the next subject treated. M. de Mortillet stated that in Italy, the *terramare*, which may be assimilated to the *Kjokkenmöddings* of Denmark, being, in fact, refuse heaps from human habitations, allowed this subject to be treated with all the precision of geology. These refuse heaps exhibit a regular succession of strata, in which the relics of ancient industry are distributed according to a definite order. Now we find that stone tools are succeeded by bronze implements, and that, after a considerable lapse of time, iron appears, but without coins, without any representations of animals, without works of art of any kind whatever; these signs of a more advanced state of civilisation are met with at a much later date, which, however, still precedes the Etruscan period. The iron age, in its earlier stages, is therefore essentially prehistoric, and if such is the case in Italy, it must be so, *à fortiori*, in other regions of Europe.

Mr Franks said that it was difficult to examine the iron period without trespassing upon the limits of history. In England, for instance, this epoch does not seem to extend further back than two centuries before the Christian era.

After a long discussion on this point, M. de Longpérier gave a short sketch of the numismatic question, showing what inferences could be derived from the absence or the presence of coins among the relics of a former age.

VI. The anatomical characteristics of prehistorical man were the last subject of debate.

Dr. Pruner Bey, relying upon a numerous collection of ancient skulls, considers the existence of two distinct races in prehistorical times as a positive fact. One of these races was dolichocephalic, the other brachycephalic. The characteristics drawn from the relative proportions of the diameters of the cranium seem, however, unsatisfactory. Dr. Pruner Bey prefers, therefore, resting the distinction upon the shape of the face, which is oval in the long-headed race, and angular or lozenge-shaped in the short-headed one. This latter popu-

lation he believes to have existed alone in Europe when the reindeer inhabited its plains; while the dolichocephalic invaders made their appearance in a later age, corresponding to the polished stone period.

Professor Vogt said that three facts appeared to be now fully established. 1. That two distinct races existed in prehistorical times. 2. That, through hereditary transmission (*atavisme*), the ancient types might occasionally reappear. 3. That the progress of time modifies the leading features of every type.

M. de Quatrefages was happy to see that scientific men were beginning to agree upon facts. As to the conclusions to be drawn from them, he thought that Dr. Pruner Bey had not adopted the extreme views of Professor Vogt. For his own part he was not inclined to believe in the existence of two distinct primitive races.

Professor Virchow, after exhibiting some skulls discovered in ancient tumuli from the north-eastern corner of Germany, read a paper on the alterations produced upon the bones of the cranium by the action of various causes. He noticed that the moisture of the ground had a tendency to increase the thickness of their laminæ, which become porous and light when completely dry. He also noticed the changes which might be produced in the shape of the skull by the weight of the superincumbent strata, and by the roots of plants which press upon them in their downward growth. He next examined the effect of premature ossification of the sutures. Whenever one of the sutures of the cranium is prematurely ossified, the growth of the corresponding bones is arrested in the direction of a line which falls perpendicularly upon the ossified suture. The development of the skull generally takes place in the opposite direction, by a law of compensation, according to the Professor's own expressions. It is therefore possible for a head, which naturally belonged to the long type, to become short and broad through premature ossification of the transverse sutures of the skull. The ossification of the longitudinal suture produces, on the contrary, an elongation of the cranium. These notions, when applied to the study of ancient crania, will often correct the views which their outward appearance has suggested. Two of the Basque skulls, belonging to the Anthropological Society of Paris, have been described as eminently brachycephalic; but it will be found on examination that they both exhibit a premature ossification of the transverse sutures. The Basque skull is eminently dolichocephalic, and in this respect it resembles the ancient crania which are found in the oldest tumuli of north-eastern Germany.

We may be allowed to remark with surprise that Professor Virchow is the only politician who has devoted his attention to the study of anthropology, at a time when the doctrine of nationalities, about which such glaring absurdities have been uttered in the press, is on the point of modifying the political conditions of the world in which we live.

Professor Schaafhausen read a paper tending to prove that the organisation of man had been constantly advancing towards a higher degree of perfection since the earliest times. He does not consider the semi-bestial types which have occasionally been discovered in the fossil remains of man as merely accidental deviations from a regular form, but as exhibiting the real condition of the primitive population of Europe. The skull of Neanderthal itself, the lowest in type which has hitherto been discovered, belonged probably to a savage whose degree of intelligence scarcely exceeded that of the brute creation. It would, therefore, seem evident that the human form is derived from an inferior type, which closely approached that of the present anthropoid mammalia. The Professor expressed the opinion that the dolichocephalic form was that of the lower races, and that the development of the intellect corresponded to an increase of the transverse diameter of the skull. He stated that the Germanic tribes of the Roman period were long-headed, while the present German type, according to Welcker, is brachycephalic. In concluding, Professor Schaafhausen declared that climate and civilisation were the two great influences which modified the type of man. Climate, said he, acts upon the stature and constitution of the human body, and on the colour of the skin; while civilisation developes the mind, and alters the shape of the skull.

Professor Broca, replying to Dr. Pruner Bey, said that the opinion which attributed a higher degree of antiquity to the brachycephalic type in Europe was mainly founded upon the inspection of Danish skulls; but when we examine the most primitive forms which have been discovered of late years, we find them constantly dolichocephalic. The long type would therefore seem in reality to be that of the oldest inhabitants of Europe, whatever may have been, at a later period, the result of Asiatic invasions. Passing to another subject, the Professor endeavoured to show that the *osteological documents* which we now possess seem to fill up the void which separates man from the anthropoid monkeys. He placed before the Congress a series of graduated casts, exhibiting the skull of a chimpanzee, the Neanderthal cranium, that of Eguisheim, that of a modern Australian, and lastly that of a Frenchman of the present age. He then adverted to the fact that the form of the lower jaw, examined in various types, led to similar results. Two lower maxillary bones of the most ancient period have been discovered in the caverns of Naulette and Arcy, together with remains of the mammoth and other extinct species. Now a regular scale of progression is obtained by comparing the lower jaw of a chimpanzee to the jaw of La Naulette, that of Arcy, that of an Australian, and that of a modern European. In the monkey, the curve of the lower maxillary is elliptical; the ellipse is broader in the two human specimens we have just mentioned; the two branches are parallel in the Australian, while, in the white man, the curve of the lower jaw is parabolic. In the European the chin is prominent; it is much less so in the Australian; it recedes still further in the jaw of Arcy; it almost disappears in that of La Naulette, and vanishes altogether in the monkey.

After discussing the doctrine of progressive transformation, the Professor said that, without repudiating Dr. Darwin's views, he did not consider them as sufficiently proved, and that for the present he continued to believe in the plurality of human races.

After a prolonged debate on this subject, in which Messrs. De Quatrefages, Dally, Vogt, Lalande, and Giraldès took a prominent part, the labours of the Congress were closed by a speech delivered by the President (M. Lartet). The assembly, before separating, decided that another Congress should be held in England during the course of the present year (1868). Sir Roderick Murchison was elected President; the members of the committee being Sir C. Lyell, Sir J. Lubbock, Messrs. Carter Blake, Busk, Evans, Franks, and Prestwich.

GENERAL CORRESPONDENCE.

"INFANTILE REMITTENT FEVER."

LETTER FROM DR. HERMANN WEBER.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your report of the "Royal Medical and Chirurgical Society" at p. 214 of to-day's paper, the remarks attributed to me do not read exactly as I wished them to be understood.

I first mentioned that in Germany no single disease responding to the term "infantile remittent fever" was known, and that, when I came to London, many years ago, I endeavoured to make myself acquainted with this disease; that I later had the opportunity of seeing a considerable number of cases designated as suffering from it by some of the most distinguished men, and that, of these cases, a certain number were clearly "typhoid fever," others were quite as clearly of "aguish" character—*i.e.*, "intermittent fever," which in children, especially in the beginning of the attack, is less typical and less easily recognised than in the adult; that in other cases I had to regard bronchopneumonia of the apex as the real nature of the disease, and again, in others, gastric and intestinal irritation from various causes; that, in short, all the instances I had seen were more or less marked specimens of other generally recognised diseases as they occur in children.

The cases related by Mr. Curgenven in his valuable paper I regarded as belonging to intermittent fever.

It certainly cannot be desirable, Sir, to perpetuate a name which not only leads to endless confusion in the classification of diseases in statistical reports, but is also apt to lead to mistakes in prognosis and treatment; for surely we do not deal in the same way with ague and typhoid fever, or pneumonia, or gastric irritation induced by improper food and other noxious causes, internal or external. It appears to me, on the contrary, a duty to support men like Dr. West in endeavouring to remove the term "infantile remittent fever" from English Medical literature. I am, &c.

February 29. HERMANN WEBER.

FALLACY IN TESTING FOR ALBUMEN.

LETTER FROM MR. FOX.

[To the Editor of the Medical Times and Gazette.]

SIR,—I think the following will be found important as indicating another, and, I believe, a hitherto unmentioned fallacy in testing for albumen. Some weeks ago I paid a visit to an elderly gentleman in the country. I found œdema of both legs, and tested the urine, which gave a very distinct white cloud on boiling, and a very positive white stratum on being poured above nitric acid. Of course I included albuminuria in my diagnosis. My diagnosis was, however, happily corrected soon after by the very intelligent resident Practitioner who watched the case. The nitric acid used contained silver in some considerable amount, and gave a chloride cloud on mingling with the urine. The fact that a large quantity of acid so contaminated was supplied to the London Hospital to be used for testing, as well as for other purposes, proves our liability to this fallacy, and justifies me in bringing it before the notice of your readers. I am, &c.

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THE MEDICAL DEPARTMENT OF THE ARMY AND CIVIL LIFE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In continuation of my letter of January 25 on the subject of the Medical Department of the Army as an opening for young men who have entered the Medical Profession, so far as the pay is concerned, it is undoubtedly preferable to any ordinary appointment in civil life; yet it does not attract the best men in the Profession, or even a fair proportion of English or Scotch of any class; in fact, the public service is being literally swamped with one class and nation. As an illustration, it may be mentioned that at the present time, out of some fifty applicants, forty-seven are Irish, three English, and no Scotch. This needs little or no comment. To Irishmen individually we have no objection, provided we get the best. This question can be easily, but I fear not satifactorily, answered from Netley. It is a notorious fact that the competitive examination has a tendency to bring forward the needy and ambitious of a certain class not remarkable for their general education, morality, or genealogy—not that I wish by any means to contend the latter is an absolute qualification for the Medical or any profession, but the two former are essential in the army. The result of this is, we are retrograding in status and respect; any old officer will tell you this. Now for the other cause of this unpleasant state of things. It is not unlike recruiting for the army generally. We look to the old retired soldiers to sound the praises and prospects of their profession. Will any one for a moment pretend this is the feeling of the old retired Medical officers of the army, who used to send their sons into it, but no longer do so? On the contrary, they now denounce it, and as the Medical service formerly had a large proportion of English, and particularly Scotch, in its ranks, neither of whom any longer influence their friends in its favour, the result is as shown above. Why is this? Let the Horse Guards, the War Office, and the head of their own department in particular, answer. The former is alone responsible for the unsatisfactory status of the Medical officer; the two latter for a most unjust system of driving old Medical officers from the service who have been unfortunate in their promotion, or lost their health in consequence of the undue amount of foreign service exacted from those who do the real work of the department in a manner so entirely regardless almost of humanity that it is difficult to believe. This is effected, to give it a plausible show of fairness, by what is termed a roster, in which all are supposed to take their turn alike; but the scandalous partiality shown to some few who possess interest and are struck off the roster, on the ground of special employment for unlimited periods, throws an unfair proportion of foreign service on the remainder, who consequently break down prematurely, are not allowed time to recover their health like other officers, but driven from the service by a system ruthlessly pursued by the late Director-General, and followed up in an equally unfeeling manner by his successor. It is remarkable that both these gentlemen managed to evade foreign service when it came to their turn, not on the score of ill-health contracted in and by the service, but private interest alone. In fact, one of them left the Crimea at a most critical time, the day after the battle of Inkerman, with Hospitals crowded with sick, wounded, and dying, to which honourable post he never returned; yet he obtained the same promotion and rewards as those who remained the entire campaign, and, without possessing any special attainments, or having in any way distinguished himself, rose to the head of his department, received the highest honours of the Sovereign, and has, fortunately for us, retired into private life. If such men are to reap the rewards due to distinguished service, whilst those who have earned them are neglected or driven from it, how can the service be popular in the higher grades, or in any grades? There are at this moment some eight or ten men who have not been abroad since the Crimea, and others who have never been out of England, but who have managed to obtain either the rank or the pay, or both, awarded to those who have risked their lives and injured their health abroad or in the field. How has this been effected with the supposed existence of a roster, and the usual limit to staff employment at home—viz., five years? Under whatever plea, there can be only one answer; and yet these are the very men who are so hard on their less fortunate *confrères*. I have not by any means exhausted the causes of the growing unpopularity of the Medical service, but only shown a few of the most glaring; and if you will permit me I will again return to it, and show how very much the public and the Medical Department would benefit by a totally different system of treatment.

I am, &c.

AN OFFICER OF THIRTY YEARS' STANDING.

Junior United Service Club, February 10.

INDIAN MEDICAL SERVICE.

THE Military Secretary, India Office, presents his compliments to the Editor of the *Medical Times and Gazette*, and begs to enclose a list of the candidates for her Majesty's Indian Medical Service who were successful at the competitive examination at Chelsea in August last, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and at Netley.

India Office, March 3.

Name	Studied at	No. of marks. (Maximum 6000.)
A. S. Lethbridge	Aberdeen and England	5451
A. Stephen	Aberdeen	5386
J. J. Ratton	Ireland	5305
J. H. Newman	Ireland	4984
H. Johnstone	Aberdeen	4767
W. R. Gordon	Aberdeen	4436
J. Davidson	Aberdeen	4388
A. S. Jayakar	London	4291
J. F. Keith	Aberdeen	3972
E. A. Trinmell	England	3829
C. A. Harvey	Edinburgh and Ire'and	3543
W. Hanks	London	3339

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

MONDAY, MARCH 2, 1868.

ANNUAL MEETING.

THE PRESIDENT, on taking the chair, declared the ballot open for the election of officers for the year 1868-69. The Auditors' Report was then read. The Report of the President and Council was also read. It alluded to the continued prosperity of the Society, and stated that the total number of Fellows in December, 1867, was 642, comprising 350 resident, 268 non-resident, and 24 Honorary Fellows. After giving details of the number of new Fellows elected (29), and of the other changes by non-residency, resignation, etc., and the Report alluded to the extraordinary losses amongst its Honorary Fellows which the Society had sustained, seven out of the fifteen deaths amongst the whole Society being from their ranks. The total ordinary income for the year was £1405 16s. 8d; the total expenditure £1298 10s. 3d.; an excess on previous

years principally caused by a very large expenditure on the volume of *Transactions*, which had exceeded by £300 the cost of that of the previous year. A purchase of stock had been made to the amount of £445 5s. 5d. The Report stated that the library had been increased by the addition of 408 works, exclusive of periodical publications. Reference was also made to the Report of the Committee on Hypodermic Injection, which had been published in the last volume of the *Transactions*, and to the valuable services rendered to therapeutical science by the distinguished Fellows who had formed the Committee. A new system of ventilation and lighting for the meeting-room had been adopted, by which it was believed its temperature had been much improved. In conclusion, the Report referred to the question of giving the privilege of attendance at the meetings, etc., to Medical officers of the army and navy temporarily stationed in London, and the following "standing order" was proposed, with the consent of the Society, for adoption by the Council:—

"The Council may have the power of admitting, for a period not exceeding twelve months, Medical officers of the army and navy temporarily resident on duty in London, to consult books and periodicals in the reading-room, and to attend the ordinary scientific meetings of the Society."

The adoption of the report was moved by Dr. Wegg, and seconded by Sir William Fergusson; but before the motion was put from the chair, the meeting was addressed by

Mr. Savory, who rose to move the adoption of the alterations and amendments of the by-laws, of which notice had been given; but before the motion was seconded, Mr. Charles Hawkins rose and moved an amendment, which was seconded by Dr. O'Connor, and declared by the President to be carried:—"That the consideration of the by-laws be postponed to a special meeting appointed for that purpose," on the supposed ground that the charter required each alteration to be balloted for separately, and that there would not be sufficient time for such consideration of them. At nine o'clock the scrutineers retired to examine the lists, and on their return the President announced the result of the ballot for officers and council for 1868-9 to be as follows:—*President:* Samuel Solly, F.R.S. *Vice-Presidents:* Dr. Fuller, Dr. Meryon, Mr. Erichsen, Mr. Henry Lee. *Treasurers:* Dr. Pitman, Mr. C. H. Moore. *Secretaries:* Dr. W. Ogle, M.D., Mr. G. G. Gascoyen. *Librarians:* Dr. A. P. Stewart, Mr. C. Brooke, F.R.S. *Other Members of Council:* Dr. H. Monro, Dr. C. B. Radcliffe, Dr. H. H. Salter, Dr. W. T. Smith, Dr. W. Wood, Mr. J. Birkett, Mr. B. E. Brodhurst, Mr. J. C. Forster, Mr. J. G. Forbes, Mr. J. Wood.

PRESIDENT'S ADDRESS.

In the course of the evening the President read the following address:—Gentlemen,—Sixty-three years ago this Society was founded by a few choice spirits, amongst whom I may name Dr. Saunders, John Abernethy, Drs. Babington and Bailey, Astley Cooper, Drs. Marcet and Yellowley, and several others of high repute. The first volume of their *Transactions* was not published until ten years afterwards—*i.e.*, 1815. In the preface to this volume I find certain remarks, which are, I believe, intended to apply to the shortcomings of the schools of the metropolis, in the usual sense of the word, and the examining bodies, in so far as they gauge the amount of instruction thereby distributed. If, however, these remarks be really true, might we not ask ourselves whether they can apply to the defects of this Society, as a part of the great machinery of England engaged in the production of scientific results for the advancement of Medicine? The great body of general Practitioners—men who have to work day and night, as the great mass of Surgical Practitioners must do, to enable them to support their families, and administer to the wants of the poor—have not time during their short studentship to study pure science. If they were required to show a knowledge of it when under examination for their diplomas, they would do so to the prejudice of their more practical studies. The Surgeons of Hospitals would lose sight of them in the wards, and the demonstrators would miss them in the dissecting-room. The application of scientific research to the advancement of Surgical practice is a noble vocation, and one which will always have its votaries in this country. The College of Surgeons instituted the Fellowship with the view of gradually exalting the scientific attainments of those Surgeons whose incomes from private sources would enable them to continue their studies for a much longer period, and whose career was both to study and teach Surgery. This institution is beginning to reap its fruit, and each year will add to the harvest. It is to these men that this Society looks, and looks successfully, for aid in its objects. The Fellows by examination almost invariably join us, and will, I am sure, continue to do so. The same applies to the graduates of the London University, whose scientific examinations are admirably adapted to those who can afford to wait, study, and teach. The Medical and Chirurgical Society—would that I might call it the Royal Society of Medicine and Surgery—is, like its great progenitor, the Royal Society of science, an educational institution; or it is a myth, a vanity, and a delusion. It is, and I hope it always will be, an evening school for adults: for what Medical man can lay the flattering unction to his soul that his education is completed? For my own part, I can say most honestly that I have seldom attended these meetings without either learning something new, or having a train of thought excited which by encouragement has led to some fresh investigation or useful research. The deficiencies of this association do not arise from any want of respect to the older members of the Profession, but has there not been some want of consideration for the younger Fellows—the working bees of the hive? I am afraid that many an ardent devotee of science has been discouraged by the rejection of perhaps his first paper from the *Transactions* of the Medico-Chirurgical Society. I do not mean, for one moment, to imply that such rejection has been the work of malice, prejudice, or favouritism; but mistakes have been too often committed. I fear that a false economy has sometimes been the moving agent; but, whatever the cause, those who have been disappointed—and I can *sympathise* with them—must endeavour to bear in mind that our *Transactions* would soon lose their scientific value if the pruning-knife were not occasionally used with a relentless hand. I think too little value has been put upon single cases, which, when related, are important facts. To me, the great value of the *Transactions* depends more upon the facts which they contain than upon the theories. The facts, if truthfully recorded, must last; but the theories may not outlive the session which gave them birth. I am so much of this opinion as to hope that each succeeding year the *Transactions* will be more and more—*loaded*, I was going to say, but I will rather say *supported* by facts, so that no author for the future would ever think of writing on Medicine or Surgery without referring to our *Transactions* as the great storehouse of Medical and Surgical facts. I hope that the time has passed when the Council will be contented with publishing one volume, even though it may attain the goodly proportions of the present one. I should like to see one volume issued on this our anniversary, and another at the commencement of the Medical session in October. I would far sooner publish occasionally an imperfect paper, than reject a good one. After some remarks on the present prosperous state of the Society, Mr. Solly gave biographical sketches of thirteen Fellows deceased—Dr. Woodfall, Dr. Skeane, Sir Wm. Lawrence, Faraday, Velpeau, Dr. Bazire, Sir D. Brewster, John Propert, T. P. Teale, H. H. Raymond, Edward Howell, Rayer, Daubeny, and Dr. J. Jackson; and concluded an eloquent address amid the applause of the meeting.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 5, 1868.

Dr. Hall Davis, President.

The following gentlemen were elected Fellows:—Mr. Coates, Mr. Cooper, and Mr. Jones.

Mr. Spencer Wells exhibited a

MULTILOCULAR CYST OF THE LEFT OVARY,

which he had removed a few hours previously, having removed the right ovary of the same patient more than six years ago. After the first operation the patient had recovered perfectly, and had enjoyed good health until last summer, when the abdomen began again to increase in size.

Dr. Brunton exhibited a placenta showing fibrinous deposits.

Dr. Wiltshire exhibited

A NEW UTERO-VAGINAL DOUCHE,

which, by an adaptation of Dr. Richardson's well-known india-rubber balls, afforded a steady and continuous current. The nozzle of the apparatus was so constructed that several different tubes and a rose, which had been devised by Dr. Wiltshire, might be applied to suit the special requirements of a case. Thus, besides the usual vaginal and rectal tubes, there

was provided a long and very flexible catheter for the bladder or for sinuses; and a tube for washing away tenacious mucus from the interior of the cervix uteri, or for injecting the uterus.

Dr. Langston exhibited an interesting specimen of monstrosity.

Dr. Playfair read a paper on

CARDIAC APNŒA AFTER DELIVERY.

In a former paper the author stated that he had hazarded the suggestion that certain anomalous cases occasionally met with after delivery, characterised by all the phenomena usually ascribed to embolism, but in which the patient eventually recovered, might really depend on the formation of a coagulum in the right side of the heart and pulmonary arteries, which eventually became absorbed. The author referred to three cases of the kind which he had formerly published, and gave full details of a fourth case which had since come under his observation. He proceeded to give his reasons for assuming that coagula were as capable of being absorbed when deposited in the right side of the heart as in other vessels, and referred to the frequency with which the latter event takes place in the peripheral venous system. He next showed how cases of this kind had been overlooked and misinterpreted, quoting cases of the latter kind from published records, and concluded by making some observations on the symptoms and treatment of the disease.

Mr. Spencer Wells concurred with Dr. Playfair in the belief that cases such as he had described were far from being uncommon. He (Mr. Wells) had published accounts of cases where the formation of clots in the right side of the heart had been watched during life and found after death. In other cases, patients had recovered whose symptoms could only be explained by the deposit of fibrine and its subsequent disintegration and removal. Whenever the blood was overcharged with fibrine, the power of the heart enfeebled, and the temperature of the body high, coagulation of blood and deposit of fibrine were to be feared. This was a common cause of death in traumatic peritonitis, in pyæmic fever and septicæmia after operation or injury. The symptoms were very characteristic in all cases—great oppression about the chest, the patient filling the lungs with air by deep inspirations, and yet wanting breath (the lungs getting plenty of air, but very little blood), rapid feeble action of the heart, and gradual loss of the first sound. In one case seen recently, Dr. Richardson had pointed out that, although the first sound was faintly audible on the left side of the heart, it could not be heard on the right side, while the second sound was distinct on both sides. The treatment by carbonate of ammonia, which acts by keeping the fibrine fluid, combined with stimulants, was probably the best.

Dr. Graily Hewitt believed with Dr Playfair that coagula in the heart were the cause of the symptoms noticed in most of these distressing cases. Not long since he was called to a case in which, however, he could only attribute the occurrence of the symptoms, severe pain in the cardiac region, distress as regards respiration, and pulselessness, to shock. The case was one in which the removal of an adherent placenta had been attempted, and for upwards of two hours death was every moment expected by himself and the gentleman in attendance. Finally, after administration of much stimulant by mouth as well as by the rectum, the patient rallied. The operation on the uterus had, he believed, given rise to shock, and in this instance he did not think coagulation in the heart had occurred.

Dr. Wiltshire asked, firstly, whether there had been any œdema of the body in the case Dr. Playfair had brought forward. It appeared to him that, if the thrombus in the pulmonary artery had been of any size and of more than very brief duration, there would necessarily be more or less œdema. Secondly, if Dr. Playfair could explain how the clot was disposed of. The process must be one of extremely fine molecular disintegration, or the particles would be arrested in the capillaries of the lungs, and grave consequences ensue. Respecting the theory quoted by Dr. Playfair that the cause of the coagulation of blood in the pulmonary artery is that it has there attained its maximum impurity, Dr. Wiltshire remarked that he thought that explanation quite inadequate, for it was well known that venous blood was not very coagulable, and suggested that it was more likely due to the admixture of the contents of the thoracic duct, which were of a highly coagulable character, and which, moreover, being poured into the subclavian vein, had mingled with the venous blood just before its entrance into the right side of the heart.

Mr. W. Adams related the case of a lady, aged 30, who was delivered of a living child on October 12, after a natural labour. She continued well until November 3, when she began to experience dyspnœa after any exertion; her pulse ranged above 100, and, on the slightest exertion, reached 120 per minute. A careful examination of the chest could detect no disease of heart or lung. Perfect rest, a generous diet, and tonics were prescribed for her, but the symptoms did not improve, and on two occasions after ascending a flight of stairs syncope occurred. On November 23, after walking slowly upstairs, another attack of syncope occurred, which terminated her life. A post-mortem examination showed the heart and lungs, as well as the other organs of the body, to be perfectly healthy, but the pulmonary artery was plugged by a firm fibrinous clot, which, from its toughness and firm adhesion to the lining membrane of the vessel, must have been many days, if not weeks, in formation.

Dr. Protheroe Smith remarked that certain observations that he had made on the inferior animals might in some measure illustrate the subject of Dr. Playfair's paper. In prosecuting experiments on transfusion of blood, he had been unfortunate enough in his first attempts to inject unwhipped blood into their veins and kill two sheep, and the symptoms presented by those animals, as well as the post-mortem appearances, were analogous to those characterising the cases to which Dr. Playfair had alluded. Some time after the operation the animals showed great prostration of strength, hurried respiration and dyspnœa, terminating in death by asphyxia. The post-mortem examination showed, in both cases, one of which lasted several days, a firm, dense, light-coloured fibrinous clot, occupying the right ventricle, and projecting for some length into the pulmonary artery.

Dr. Playfair said that, while fully admitting that shock was likely to predispose to this affection, he could not agree with Dr. Hewitt in thinking that some of the cases could be explained by shock alone. In most of them there had been nothing to produce shock, and the symptoms in the two states were entirely different. No one who had seen a case of the kind could fail to have been struck with the terrible struggle for breath which formed the most prominent symptom, while nothing of the kind is observed in true cases of shock. He had not observed any œdema of the limbs.

A paper, by Dr. Tyler Smith, was read on

TWO CASES OF INVERSION OF THE UTERUS.

After a few words on the rarity of this formidable accident, the author proceeded to relate the two cases which had fallen under his observation. In the first case, which occurred in the practice of Dr. Norton, of Bayswater, the author was summoned about two hours after the accident. The placenta had been separated, and the uterus returned into the vagina. No unusual traction had been exerted on the cord. The uterus was suddenly inverted a few minutes after delivery. Efforts had been made to reduce it in vain. The patient was in a state of collapse from shock and loss of blood. The pain had been excruciating. The patient was placed under chloroform, and, by a process of squeezing and upward pressure, reinversion was effected. The author pointed out that in such cases the danger of separating the uterus from its pelvic attachments by the necessary upward pressure should be guarded against. With the left hand the inverted uterus was steadied through the abdominal walls, while the organ was manipulated with the right hand. The patient made a tedious recovery. The second case occurred in the practice of Dr. Walter Bryant in a forceps case at which the author was present. The inversion occurred suddenly before any attempt was made to remove the placenta, and while the author had his hand over the fundus uteri. The patient had been delivered under chloroform, and had not recovered sensibility. A little more chloroform was administered, the placenta was carefully peeled off from the uterus to reduce the size of the inverted mass, and the organ was then easily replaced, the patient having known nothing of the accident. In remarking upon the cases, Dr. Tyler Smith dwelt on the severity of the shock produced by inversion, and by the spasmodic strangling of the uterus by the os and cervix, and insisted on the necessity of prompt reduction under chloroform. He looked on the accident as caused in a majority of cases by an active reversed peristaltic action of the uterus, tracing its similarity to intussusception of the bowel, and its relation to hour-glass contraction and encysted placenta.

Dr. Protheroe Smith observed that it had not been his lot to witness inversion of the uterus immediately following

labour, but in one case in which he had diagnosed chronic inversion of the uterus, another gentleman, believing it to be polypus, had attempted its removal by incision; but although, having discovered his mistake, he did not complete the operation, the patient shortly afterwards died of acute peritonitis. In another case he had seen, many attempts to reduce the inversion had been made, and thirteen months had elapsed since the occurrence of the inversion at the time he first saw her. He, however, accomplished the reduction by means of a hemisphere of wood on a handle, by which the protruded fundus was compressed, and gradually, by the persistent efforts of Dr. Sanderson, Mr. Scott, and others, continued for some hours, the rigid condition of the cervix yielded so as to enable him to effect the complete retrocession of the inverted uterus. In proof of the superiority of this operation over that of Mr. Cross, of Norwich, he would further state that the patient had since given birth to two children. On both occasions there was considerable atony of the uterus in the third stage of labour, with hæmorrhage, and on the last occasion there was adherent placenta, and so little contractile power that the hand had to be held in the uterus for an hour before contraction ensued and hæmorrhage ceased. Notwithstanding this condition, in neither instance was there any attempt on the part of the uterus to reproduce inversion.

Dr. Priestley regarded Dr. Tyler Smith's paper as very interesting, and a valuable contribution to our knowledge concerning inversion. The author had advanced very good reasons to prove that an irregular and abnormal contraction of the uterus after delivery might produce inversion, and that this might take place spontaneously. Whether this hypothesis were true, or whether they accepted the explanation recently given by Dr. Matthews Duncan, he thought there were good grounds for believing that there were more ways than one by which inversion might be produced, and that besides the spontaneous cases there were others arising from injudicious management on the part of the attendant, or, indeed, produced inadvertently and unavoidably by the skilled obstetrician. It could very readily be understood how, in certain flaccid conditions of the uterine walls after the expulsion of the child, a very moderate amount of traction on the umbilical cord, added to the weight of the placenta yet attached to the fundus, might produce inversion. And besides the cases in which the uterus was turned inside out, as it were, by too violent pressure from unskilful hands, he was inclined to believe that in rare instances the most careful obstetrician might inadvertently produce slight indentation in the fundus uteri while exerting compression through the abdominal walls in cases of tardy contraction of the uterus, and where the shape and position of the organ were indistinct. The indentation once produced, the depressed portion would be seized by contracting fibres lower down, and might culminate eventually in complete inversion. It might not be possible in all cases to avoid such an accident, but the recognition of its possibility would suggest the desirability of making compression on a flabby uterus general and not partial, and particularly not of such a character as might indent the fundus uteri. A class of cases of inversion not adverted to by the author, but which seemed to favour his view that uterine contraction was chiefly concerned in inversion, were those occurring in the unimpregnated uterus. Dr. Priestley detailed the history of two cases of this kind. In one the patient was an old woman, and the polypoid tumour formed by spontaneous inversion was successfully removed by ligature. In the other a fibroid tumour, nearly as large as a child's head, had so pulled down the fundus that the womb was completely inverted, and the large size of the swelling so completely filled the pelvic cavity that its attachments and relations above could not be made out. The inversion was not discovered until it had been pulled by midwifery forceps beyond the vulva, and it was then deemed best to push the tumour back into the vagina rather than attempt any further operation at that time. The result had been that, either from the pressure employed in pulling it down, or from some other cause, the troublesome discharges entirely ceased, and the patient was reported to be comparatively well.

After some further discussion, in which Dr. Rogers, Dr. Phillips, Dr. Barnes, Dr. Greenhalgh, and the President took part, Dr. Tyler Smith replied, and the meeting adjourned.

The London Fever Hospital.—The annual report of this institution has just been published. It is from the pen of Dr. Buchanan, and is full of interesting particulars.

MEDICAL SOCIETY OF LONDON.

Monday, February 10, 1868.

Mr. Henry Smith, President, in the Chair.

Dr. Thorowgood read a paper on

REMEDIAL MEASURES IN ADVANCED PHTHISIS.

The first part of the paper drew attention to the fact that life is often prolonged far beyond expectation in cases in which cavities have existed for some time in the lungs. In illustration, notes of cases, taken chiefly from among the out-patients at Victoria-park Hospital, were given in detail. In respect of treatment, a good deal of stress was laid on a dry and bracing atmosphere, and on avoiding all places which were reputed damp or relaxing. Confinement in one room was spoken of as a very pernicious practice, as then the patient is poisoned by the exhalation from his own diseased lungs. Among medicines, the hypophosphite of lime was highly commended. Iron was spoken of as being useful when there was obvious anæmia. The pancreatic emulsion had been used in a few cases with advantage. The author then spoke of the eliminative treatment, so as to oxidise and eliminate effete matter collected in the blood, and concluded by exhorting the Medical Practitioner not to use one routine method of treatment, but to consider the merits of each case, and to apply the ordinary principles of pathology, so as to unravel the morbid phenomena, and then bring about a more successful plan of treatment.

In the discussion that followed, Dr. Cholmeley said he had great faith in bicarbonate of potash in those cases in which the digestive organs were deranged.

Dr. Webster spoke at length as to the reputed value of different climates for phthisical patients, and thought Cannes and Pisa by far the best places. Pau, he said, was too moist an atmosphere.

After some remarks from Dr. Sansom, Mr. Marshall, Mr. Francis Mason, and the President, the meeting adjourned.

THE EPIDEMIOLOGICAL SOCIETY.

Monday, February 3, 1868.

T. Crawford, M.D., A.M.D., in the Chair.

Dr. Barraut read a paper

ON MAURITIUS: ITS MEDICAL TOPOGRAPHY; AND AN ACCOUNT OF THE FEVER OF 1867.

After a graphic survey of the Medical topography of the island, Dr. Barraut proceeded to consider the endemic bilious remittent fever, the so-called "Bombay fever" prevalent among the Indian population, and the disease which has recently devastated the island. He showed that, while bilious remittent fever exists in marshy districts, the so-called "Bombay fever," which has been confounded with it, is a contagious continued fever, generated under the same conditions as typhus, and analogous to, if not, typhus. The disease which has recently devastated the island was a true malarious malady, and new to the population. He further showed that, by the deforesting of the island which has been taking place of late years, and the rising of the coral reefs which encircle it, the sources of malaria have been much aggravated, and the aggravation continues progressively. In addition, the vast influx of Indians into the island as labourers on the sugar estates—a class of people at the best living barely above or at the point of sufficiency—had given rise to a mass of population ripe for disease. This population, moreover, lives in an indescribable state of filth and foulness, and augments beyond measure the already insalubrious state of the towns and the camps or estates. The outbreak coincided with a protracted period of intense heat and with a commercial crisis, when the mass of the poor population were subjected to much privation—a period when the sources of malaria were intensified to the highest degree, and when the population was in a state most liable to be affected by paludal poisoning.

Dr. Henry Rogers read a paper, being

NOTES ON THE EPIDEMIC OF MALARIAL FEVER WHICH APPEARED IN MAURITIUS IN 1866-67.

Dr. Rogers, after an extended examination of his subject, concluded:—That the epidemic which prevailed in Mauritius in 1867 was purely malarial or paludal in origin, nature, and

effects. That the disease was of an infectious character, not imported, but of local growth, and fostered by want of proper sanitary measures. That the cause of the malaria was due, in the first place, to the indiscriminate and extensive denudation of land which has been going on for several years past; and, secondly, to a succession of droughts consequent on a marked decrease in the annual rainfall. That among the secondary causes may be enumerated the inundation of 1865, the enormous increase in the population of Port Louis, the filthy state of the dwellings of the lower order, the want of a proper system of drainage in the town of Port Louis, the absence of hurricanes for several years past, and the great diminution in thunder, and lightning. That the disease was one which was utterly unknown in the Mauritius previous to the present epidemic, and that the affection known as bilious remittent fever, though endemic in the colony for many years past, could not have given rise to an outbreak of malignant or pernicious intermittent fever.

OBITUARY.

SIR JAMES B. GIBSON, K.C.B., M.D.

A TELEGRAM was received in town on the 28th ult. announcing the death of the above-named officer as having just occurred at Rome, where he had been residing for the benefit of his health.

Sir James survived the loss of Lady Gibson, who died in November last, by less than four months. We have frequently in these columns commented on the unpopular policy pursued by Sir James Gibson in the administration of the Army Medical Department, amongst the members of which, however, he had many personal friends who will regret to hear of his loss. He had for some time past been suffering much from bronchitis, with profuse secretion, and during last summer had had a serious illness from carbuncle on the back of the neck.

Sir James Gibson graduated in Medicine at Edinburgh, and became a Member of the Royal College of Surgeons, London, in 1826. In December of the same year he entered the army as Hospital Assistant, and in January, 1829, he obtained his commission as Assistant-Surgeon. He was promoted to the rank of Surgeon in July, 1841; Deputy Inspector-General of Hospitals in May, 1855; Inspector-General in December, 1858, and Director-General in March, 1860, from which appointment he retired in March, 1867.

He served for nearly nine years continuously in the West Indies and in Malta, from December, 1841, to April, 1844; also with the army in the Eastern campaign, in Bulgaria and Crimea. On the Duke of Cambridge going to the East, he was selected by his Royal Highness as his personal Medical attendant, was present at the battles of Alma, Inkermann, and Balaklava, and received the Crimean medal with four clasps, the Turkish medal, and the distinction of the C.B. He was afterwards employed, from May, 1855, till June, 1856, in the organisation of a large Hospital at Goza for the sick and wounded from the Crimean army. He was appointed one of the honorary Physicians to her Majesty in August, 1859, and became K.C.B. in March, 1865.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 27, 1868: —

Brake, William Newman, Staff-Surgeon H.M.S. *Excellent*.
Cluff, James Stanton, Kildress, Cookstown, Ireland.
Gentles, Thomas Lawrie, Genard-street, Derby.
Johnson, Edward Reginald, St. Saviours, Jersey.
Petman, Alexander Prince, Folkestone.

The following gentlemen also on the same day passed their First Examination: —

Peirce, James Edward, St. Bartholomew's Hospital.
Stephens, Richard, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DAVIDSON, J. H., M.D.—Resident Medical Superintendent to the Cheshire Lunatic Asylum.

FREEMAN, G. D., M.R.C.S.E.—Surgeon to the Islington and North London Provident Dispensary.

KEALL, W. P., L.R.C.P. Edin.—Assistant House Surgeon to the Bristol General Hospital.

MITCHELL, THOMAS H., M.R.C.S.—Divisional Surgeon to the Y Division of Police, Caledonian-road, *vice* Dr. Bellinghurst, resigned.

STRANGE, ARTHUR, M.D., Second Assistant Medical Officer to the Gloucester County Asylum—Assistant Medical Officer to the Chester County Asylum.

THOMPSON, R. E., M.D.—Additional Physician to the Belgrave Hospital for Sick Children.

TRUMAN, E. B., M.D.—A Consulting Surgeon to the Nottingham General Dispensary.

BIRTHS.

ARMSTRONG.—On February 28, at Peckham House, Peckham, the wife of Dr. Armstrong, of a daughter.

DAVIS.—On February 29, at 11, Brunswick-square, the wife of W. Davis, M.D., of a daughter.

EVANS.—On January 30, at St. George's, Bermuda, the wife of C. W. Evans, M.D., Surgeon-Major, of a daughter.

HUMPHREYS.—On February 28, at Thame, Oxon, the wife of M. H. Humphreys, M.R.C.S.E., of a son.

MARRIAGES.

COLEMAN-MACKAY.—On February 20, at Holy Trinity Church, Gosport, E. W. Coleman, M.D., R.N., to Annie Henrietta, younger daughter of G. Mackay, M.D., Deputy Inspector-General, etc., Royal Hospital, Haslar. No cards.

OWEN—GREENE.—On February 25, by the Rev. W. Allen, assisted by the Rev. R. C. Wolstall, D. C. L. Owen, Esq., Surgeon, of Steelhouse-lane, to Anna, daughter of John Greene, Esq., Surgeon, of St. George's, Wellington, Salop.

DEATHS.

ALLAN, R. L., M.D., of Greenock, on February 21.

COGAN, C. C., M.D., at Douglas House, Greenwich, on March 2, aged 38.

GIBSON, Sir J. B., K.C.B., M.D., Honorary Physician to the Queen, and late Director-General Medical Department of the Army, at Rome, on February 25.

POWELL, F. (Assistant Surgeon 2nd Battalion Royal Regiment), on board the troop-ship *Euphrates*, near Suez, on his way home, on February 12, aged 25.

SLOPER, C. E., L.R.C.P. Edin., M.R.C.S.E., at Polar House, Tredegar, Monmouthshire, on February 29, aged 48.

STEWART, A., M.B., House-Surgeon to the Greenock Hospital, on Feb. 21.

WILSON, T., M.D., at Nottingham, on March 1.

VACANCIES.

BROMPTON HOSPITAL FOR CONSUMPTION.—Assistant Physician.

LIVERPOOL ROYAL INFIRMARY.—Junior House-Surgeon.

SOMERSET COUNTY LUNATIC ASYLUM.—Superintendent.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL.—Dispenser.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Frome Union.—Dr. J. E. Bennett has resigned the Kilmersdon District; area 9624; population 3217, salary £79 per annum.

Great Ouseburn Union.—Mr. W. S. Steele has resigned the Boroughbridge District, area 4325; population 6754; salary £25 per annum.

Spilsby Union.—Mr. John Smith has resigned the Burgh District; area 15,4—, population 3206; salary £30 per annum.

Wetherby Union.—Mr. J. A. Ledgard has resigned the First District; area 1339; population 3572; salary £30 per annum. Also the Workhouse; salary £15 per annum.

APPOINTMENTS.

Hitchin Union.—William Jenner, M.R.C.S.E., L.S.A., to the Fifth District.

Morpeth Union.—Robert Paton, M.R.C.S. Edin., M.D. St. And., to the First and Eighth Districts and the Workhouse; Thomas Creighton, M.R.C.S.E., L.S.A., to the Second District.

Romford Union.—Charles G. Bott, M.R.C.S.E., L.S.A., to the Essex District.

Stratford-on-Avon Union.—Arthur H. Dowson, M.R.C.S.E., L.S.A., to the Alveston District.

THE LEVEE.—At the levee held on Tuesday, the 3rd inst., at St. James's Palace, by his Royal Highness the Prince of Wales, the following members of our Profession were presented:—Dr. Clarence Cooper, Surgeon Madras Army, by the Secretary of State for India; Sir William Fergusson, Bart., F.R.S., on appointment as Sergeant-Surgeon to the Queen, by the Lord Chamberlain; Mr. John Hilton, on appointment as Surgeon-Extraordinary to the Queen, by the Lord Chamberlain; Mr. Prescott G. Hewett, F.R.S., on his appointment as Surgeon-Extraordinary to the Queen, by the Lord Chamberlain; Dr. Thomas Gwynne Howell, Her Majesty's Madras Army, by the Secretary of State for India; Sir William Jenner, M.D., on being created a baronet, by the Lord Chamberlain; Mr. Thomas Butler Power O'Brien, Staff Assistant-Surgeon, by the Adjutant-General; Mr. James Paget, F.R.S., on appointment as Sergeant-Surgeon Extraordinary to Her Majesty, by the Lord Chamberlain; and Dr. James Yearsley,

M.R.C.S., by the Duke of Argyll. The following also attended the levee:—Sir Henry Holland; Dr. A. Armstrong, Inspector-General, R. N.; Dr. Arthur Farre; Dr. Stanley Haynes; Dr. Sieveking; Mr. George Borlase Childs; Mr. William White Cooper; Mr. Cæsar Henry Hawkins; Mr. R. W. Tamplin; Mr. Thomas Wakley; and Mr. Henry Haynes Walton.

THE QUEEN'S BOOK.—Her Majesty has presented to the library of the Hospital for Diseases of the Chest, Victoria-park, through Sir W. Jenner, a copy of "Leaves from the Journal of our Life in the Highlands," in which she has written her autograph.

DOWNING COLLEGE, CAMBRIDGE.—An examination for four Minor Scholarships will be held in Downing College on Tuesday, March 31 next, and the three following days, and will begin at 9 a.m. on Tuesday. The examination will be chiefly in Classics and Elementary Mathematics, but some weight will be given to proficiency in French and German. Two additional papers of an elementary character will be set, one on Moral Philosophy in connexion with the principles of Jurisprudence, and on International Law; the other on the following Natural Sciences in connexion with Medicine—namely, Chemistry (including Analysis), Comparative Anatomy, and Physiology; and in awarding two of these Scholarships, considerable importance will be attached to any special proficiency in the legal or in the Medical subjects. Persons who have not been entered at any College in the University, or who have not resided one entire term in any such College, are eligible to these Minor Scholarships, which will be of the value of £40 per annum, and tenable for two years, or until their holders are elected to Foundation Scholarships. No one elected Minor Scholar will receive any emoluments until he has commenced residence as a student of the College. Satisfactory testimonials as to their moral character must be sent to the Master by all candidates on or before Wednesday, March 25. Further information will, if required, be given by the Rev. W. B. Pike, or John Perkins, Esq., tutors of the College.

MR. SAMPSON GAMGEE has been elected a Fellow of the Royal Society of Edinburgh.

MEDICAL CHARITIES.—Mr. Henry Blundell, of Balham, Surrey, recently deceased, has bequeathed £1000 to the Hospital for Consumption, Brompton; £1000 to the Idiot Asylum, and similar legacies to other institutions not Medical.

SOMERSET LUNATIC ASYLUM.—Dr. Robert Boyd, so long the Medical Superintendent of the County Lunatic Asylum, has just resigned. His successor will receive a salary of £500 per annum, furnished apartments, coals, etc.

THE MEDICAL SOCIETY OF LONDON.—The President and other officers of this Society for the ensuing year were elected on Monday night, but the result of the ballot will not be declared until the 9th. However, we believe that the following is the probable, though unknown, result:—*President:* Dr. B. W. Richardson; *Vice-Presidents:* Drs. Buchanan and Andrew Clark, and Messrs. De Morgan and J. Gay; *Treasurer:* Mr. C. H. Rogers Harrison; *Librarian:* Dr. Head; *Ordinary Secretaries:* Mr. F. Mason and Dr. A. E. Sansom; *Foreign Secretary:* Dr. J. Althaus; and finally *Orator:* Sir Duncan Gibb, Bart.

EXTIRPATION OF THE SPLEEN.—According to the report of the progress of M. Pean's successful case of extirpation of the spleen, it corroborates some of the results already obtained by Professor Schiff in his experiments on animals. Among these is the great increase of appetite. So voracious did the rats and dogs become after the experiments that they eagerly devoured their own spleens, which after ligature of the vessels had been left hanging out. It is found too that M. Pean's patient can run much better, without getting out of breath, confirming the French proverb *courir comme un dératé!*—*Presse Indigène*, Feb. 23.

A QUEER BLUNDER.—We quote the following account from the *Pall-mall Gazette*:—"W. Jones, a printer, has been committed to the County Lunatic Asylum at Gloucester as being of unsound mind, on the certificate of two Physicians who examined him, and decided, on receiving incoherent answers to their questions, that he was mad, but did not happen to discover that he was stone deaf. Dr. Token (?), the Superintendent of the Asylum, has, however, ascertained the important fact, and states that, as far as he can find out, Mr Jones's reasoning powers are unimpaired. His letters to his friends, too, bear evidence not only of intelligence, but of a well-balanced mind. Application has been made to the Lunacy Commissioners to inquire into the matter."

QUACK ADVERTISEMENTS.—We observe with pleasure a statement in the *Pall-mall Gazette*, that, after many months of hesitation, repentance has at last come to the *Telegraph* on the subject of "baby-farming" advertisements, which no longer are admitted into its columns. And we join with the *Pall-mall* in the hope that the *Telegraph* will take to heart a little further admonition, and cease to publish what the *Saturday Review* calls the "loathsome appeals of quack doctors."

FATAL HEMORRHAGE AFTER EXTRACTION OF A TOOTH.—Dr. Schünemann relates an interesting example of this occurrence. Its rarity may be judged of by the fact that it is the only case that has occurred among 9442 tooth extractions performed in the Brunswick Hospital during 1859-66. A molar tooth was easily removed from the jaw of a tailor, 21 years of age, on account of caries. The bleeding, without being great, persisted in spite of astringents, and it was then stated that he, as well as his father and brother, were subjects of hæmorrhagic diathesis. In the course of the night, severe bleeding came on, and he was brought to the Hospital in an anæmic state, being scarcely conscious and his pulse hardly perceptible. The bleeding still continued, but was at last arrested by a conical cork plug. He was sufficiently recovered at the end of four days to leave the Hospital, but having removed the plug next day, profuse bleeding came on again, and it could only be arrested after several applications of the actual cautery. His strength was reduced to the lowest ebb, but by the aid of stimuli he was rallied. At the end of three days, in spite of all warning, he again removed the plug, and the bleeding again recurred, and was arrested at the end of several hours by plugging and cautery. However, the patient's strength was too far gone to rally this time, and he died on the day week that the tooth had been extracted. The autopsy threw no light on the cause of the bleeding.—*Virchow's Archiv*, B. 41, p. 287.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Imperial.—Messrs. John Churchill and Sons.

A Subscriber.—The vacancy occasioned by the resignation of Dr. Bell Pettigrew has not been filled up.

R. S.—In Council of the Royal Society awarded a Royal medal to Sir William Logan, for his geological researches in Canada, and the construction of the geological map of that colony.

A Member, Brighton.—The annual election will take place in July. There are two vacancies, on the list of succession not voted. That the gentleman named has a claim to distinction in an important branch of our Profession cannot be disputed; and to him as a candidate.

Hon.—There is no law against any man calling himself Dr., even although he is not a Ph. D.; it is a matter of good taste merely, but a Ph. D. is generally entitled to the title. The degree is procurable at a German University.

Grenadier.—The naval Medical service has also been greatly improved, and although there are still some things to be desired, the comfort of the Medical officer is generally considered. Further, except on expensive stations or in expensive ships, the Medical officer can save money, which cannot be said in the army. Great improvements have been made with regard to the examinations, which are now competitive. An examination has just taken place. Write to Dr. Bryson, the Director-General.

Errata.—P. 245, col. 2, line 22, from bottom, for "mark" read "mask."

Dr. Dewar.—Representations have been made on application to the Board of Trade. Greenwich Hospital has received large sums from the mercantile [illegible] year 1867, £24,854 19s. 10d. was paid by them to the Hospital.

Mesmer, Liverpool.—You will find a History of Animal Magnetism in Germany, France, and England, in No. XIV. of the *British and Foreign Medical Review*, from the pen of the late Dr. Joseph Toynbee, F.R.S.

Medicus.—It has not yet been decided by the Surgeons admitted graduates in Medicine to undergo an examination in Surgery only for the Fellowship. The question has been suspended.

Subscriber.—For an account of the operation of embalming as practised by Dr. J. C. Warren in the *Boston Medical and Surgical Journal*, see also an Address on Embalming, recently delivered before the Royal Institution by Mr. J. Davidson, published by Ridgway. Consult also the late Mr. Pettigrew's work on the subject.

Inquirer.—By the rules of the *Medical Times and Gazette*, you will find that the Council has taken active action in the matter. Each candidate was required by the last rule that his name would be removed.

The Vaccination Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you kindly favour me with your opinion upon the subject of vaccination? The question at issue is this—Was it not intended that the old law should be rescinded when the new Act came into operation on January 1 last? Or is it optional with the guardians whether they choose to require their Medical officers to abide by the old contract, thus rendering the new law inoperative as to any benefit from fees to the Medical officers? What course would you recommend in the event of the point being contested between law and justice. Assuming there may be law on one side, arbitrary though it may be, where is our redress?

March 2. I am, &c. H. RAYNES.

*** All contracts entered into before January 1, 1868, will under sect. 1 of the Vaccination Act, 1867, remain in force until put an end to by *either of the parties* to the contract; and therefore only the fees prescribed in such contracts can be paid for primary vaccinations. For revaccination only two-thirds of the fee now paid for primary vaccination are payable. It will thus be seen that the vaccinator's remedy consists in giving the prescribed notice to terminate his contract if he wishes to change from the old scale. Of course he should consider, before adopting this course, whether he will be re-engaged under the new. "A bird in the hand is worth two in the bush."

COMMUNICATIONS have been received from—

Dr. TRUMAN; Mr. HASLEWOOD; Mr. REDDEN; Dr. ARTHUR STRANGE; Mr. A. BRUCE; Dr. HERMANN WEBER; Mr. J. D. HARRINGTON; INQUIRER; Mr. HENRY RAYNES; Dr. P. W. LATHAM; Mr. JOHN PACKER; Mr. W. W. REEVES; A. L. M.; Mr. J. J. RIDGE; Mr. SAMUEL GAMBLE; Mr. D. WATSON; Dr. MARCET; Dr. FULLER; Inspector-General MOUAT; Mr. RADCLIFFE; Dr. BARNES; Dr. E. L. DIXON; Mr. J. CHAVASSE; Mr. WILLIAM ADAMS; Dr. HUGHLINGS JACKSON; Mr. H. B. INGRAM.

BOOKS RECEIVED—

Wood's Bible Animals, Part 3.—Christ is Coming.—Ormerod's British Social Wasps—Carter's Lecture on the Turkish Bath—Why we should not be Poisoned because we are Sick—Homœopathic Review, March—Glasgow Medical Journal, March.—Pharmaceutical Journal, March.—Watts' Dictionary of Chemistry, Part 44—Edinburgh Medical Journal, March—Medical Mirror, No. 51—Fly's Schools and Colleges.

NEWSPAPERS RECEIVED—

L'Union Médicale—Medical Press and Circular.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 29, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Feb. 29.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Feb. 29.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40 1	2324	1441	1266	61 7	35 7	46 0	0·70	71
Bristol (City)	167487	35 7	132	75	†83	56·3	28 2	46 9	0 85	86
Birmingham (Boro')	356296	45 0	275	171	180	59·3	30 0	48 0	0 13	13
Liverpool (Borough)	500676	98 0	408	290	278	54·1	37 7	47 2	0 35	35
Manchester (City)	366835	81 8	311	208	†226	60 2	33 0	47 2	0 65	66
Salford (Borough)	117162	22 7	80	59	63	56 5	34 5	47 0	0·70	71
Sheffield (Borough)	232862	10 2	166	122	91	54 0	33 0	46 5	0 41	41
Bradford (Borough)	108019	16 4	§109	55	§75	..	..	..	..	..
Leeds (Borough)	236746	11 0	178	120	107	55·0	33 0	47·7	0·18	18
Hull (Borough)	108269	30 4	88	50	56	57 4	35 0	46 6	0 85	85
Newcstl-on-Tyne, do.	127701	23 9	83	68	57	55·0	35 0	47·2	0·03	3
Edinburgh (City)	177039	40 0	139	84	105	54·7	..	47 4	0 30	30
Glasgow (City)	449868	88 9	358	262	286	58 6	33 5	47·0	0·72	73
Dublin (City and some suburbs)	319985	32·8	182	‡157	167	58·1	32 5	48·1	0·29	29
Total of 14 large Towns	6391085	34 7	4865	3163	3017	61 7	32·5	47·2	0·44	44
					Week ending Feb. 22.	Week ending Feb. 22.				
Vienna (City)	(1863) 560000	..	..	..	377	..	..	35·6	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·927 in. The barometrical reading increased from 29·61 in. at the beginning of the week to 30·19 in. by 9 p.m. on Sunday, February 23; decreased to 29·96 in. by 9 p.m. on Monday, February 24; increased to 30·23 in. by 9 p.m. on Tuesday; decreased to 29·69 in. by 8 p.m. on Saturday, February 29; and was 29·27 in. by the end of the week. The general direction of the wind was W. S. W. and S.S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses of 1851 and 1861. At this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 42·4.

§ No return having been received from Bradford, averages of the six previous returns have been substituted for the correct numbers.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 29, 1868.

BIRTHS.

Births of Boys, 1206; Girls, 1118; Total, 2324.
Average of 10 corresponding weeks, 1858-67, 2321·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	668	598	1266
Average of the ten years 1858-67	718·5	691·3	1409·8
Average corrected to increased population..	..	..	1551
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	4	2	2	9	6	2	..
North ..	618,210	6	1	5	..	7	17	3	..
Central	378,958	1	2	4	..	6	7	1	..
East ..	571,158	6	9	3	4	11	8	3	..
South ..	773,175	5	6	9	3	22	12	4	..
Total ..	2,803,889	18	22	23	9	55	50	13	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·927 in.
Mean temperature	42·0
Highest point of thermometer	61·7
Lowest point of thermometer	32·7
Mean dew-point temperature	40·8
General direction of wind	W. S. W. & S. S. W.
Whole amount of rain in the week	0·79

APPOINTMENTS FOR THE WEEK.

March 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

9. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Mr. Crawfurd, "On the Migration of Plants yielding Fermented, Alcoholic, and Oleaginous Materials." Miss Hugh, "On the Island of Teneriffe and its Aboriginal Inhabitants, the Guanches." Communicated by Sir John Lubbock, Bart.

ROYAL INSTITUTION, 3 p.m. Mr. G. Scharf, "On Historical Portraiture."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Hulke, "On Excision of the Wrist by Lister's Method." Mr. J. F. West (of Birmingham), "On Excision of the Wrist."

12, HINDE-STREET, W.—4½ p.m. "Lectures on Experimental and Practical Medicine," by Benjamin W. Richardson, M.D., F.R.S.

11. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2·30 p.m.

HUNTERIAN SOCIETY (Council, 7½ p.m.), 8 p.m. Adjourned Debate on Mr. Jonathan Hutchinson's Paper.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Dr. Collingwood, M.A., F.L.S., "On the Alga which causes the Coloration of the Sea." Dr. Munro, "On a Method of Arranging Microscopical Cabinets."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Mr. G. Scharf, "On Historical Portraiture."

13. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Papers on "Rheumatic Affections," "Fetal Pneumonia," "Chloral of Glycerine," "Operations on the Vulva."

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

ROYAL INSTITUTION, 3 p.m. Mr. Stanley Jevons, "Probable Exhaustion of our Coal Mines."

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Each teaspoonful contains one grain Phosphate of Iron, two and a half grains Phosphate of Lime, and smaller proportions of the Alkaline Phosphates, with all in perfect solution, with a slight and agreeable excess of acid. There are many Preparations sold as Chemical Food, but no two samples are alike, nor are any equal to PARRISH'S, by whom it was originally introduced.

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AS USED BY DR. PROTHEROE SMITH (*Vide* "Lancet," June 1, 8, 22, and 29, 1867)

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THE ORIGINAL DISCOVERER & INVENTOR OF

CHLORODYNE

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DR. J. COLLIS BROWNE, M.R.C.S.L.,

Ex Army Medical Staff.

A WORD TO THE PROFESSION.

The word CHLORODYNE was coined by Dr. Browne to designate the remedy he discovered after ten years' protracted experiment with remedia not described or used in Hospital Practice at the Bedside of the Patient, where he was able, hour after hour, by night and day, to make his observations on the action of his remedy, in every phase of disease possible, and note its effects on the Pulse, Skin, Sensoria, Secretory, and Functional Arrangements of the Subject treated. It is in this way only that new discoveries in Medicine can be attempted or effected by the Physician. How comes it that, without the practice of Medicine, certain houses in the drug trade venture to vend compounds so-called Chlorodyne, without a knowledge of its formula, the same never having been publicly made known by Dr. Browne? It is evident, therefore, that those who use Spurious and Pirated Imitations are acting unjustly by encouraging a deception and misleading themselves.

CAUTION.

Vice Chancellor Sir W. P. Wood stated that Dr. J. Collis Browne was undoubtedly the Inventor of CHLORODYNE: that the story of the Defendant, Freeman, being the Inventor was deliberately untrue, which he regretted had been sworn to. Eminent Hospital Physicians of London stated that Dr. J. Collis Browne was the discoverer of Chlorodyne: that they prescribe it largely, and mean no other than Dr. Browne's.—See *Times*, July 13, 1864.

EARL RUSSELL has graciously favoured J. T. DAVENPORT with the following:—

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ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

(*Continued from page 225.*)

Lesions of the Motor Tract Continued.

To proceed. If in conjunction with hemiplegia we find special cranial nerves are paralysed, then we are sure that the ganglionic centres of these nerves are involved in the disease. Thus, in a very interesting case related by Dr. Weber to the Medico-Chirurgical Society, a man was seized with an apoplectic fit, and found to be hemiplegic, with paralysis of the third nerve on the opposite side—that is, he had paralysis of the right arm and leg, with ptosis and dilated pupil of the left side of the face. Dr. Weber concluded that there was an effusion of blood in the left crus cerebri, which turned out to be absolutely correct.

If disease occurs lower down in the pons Varolii, we might expect that other nerve-roots would be implicated, as those of the fifth, sixth, and seventh; and this is the case. As we are speaking of the motor tract, I will first allude to the case where the seventh or facial nerve is paralysed. I have already told you that in the commonest form of hemiplegia—that arising from disease in the ganglionic centres within the brain—the facial nerve is only slightly affected, so that if you meet with a case where the face is completely paralysed on one side you may know that the lesion is not in the ganglia above named, but in the pons Varolii. This I have verified over and over again, and on several occasions seen a correct diagnosis made as to the exact seat of the hæmorrhage. In this very model before you, where you observe the pons Varolii cut through and an apoplectic clot in its midst, the true site of the lesion was anticipated before the death of the patient. In these cases the paralysis is sometimes on one side of the face and sometimes on the other, according to the position of the clot, the explanation which is offered by Brown-Séquard being probably correct—that the fibres of the seventh nerve cross in the pons. It would therefore happen that if disease occurred on one side implicating the motor tract, and at the same time the origin of the seventh nerve, we should witness the case of hemiplegia accompanied by palsy of the same side of the face. If, however, the disease occurred somewhat lower down in the pons, the centre of the seventh on that side would escape, but the fibres crossing over from the opposite nerve would be involved. We should then witness a case of paralysis of the arm and leg on one side and paralysis of the face on the other. I had an example of this under my care not long ago, in which the man almost entirely recovered.

If effusion of blood takes place in the middle of the pons, we have before us one of the most difficult cases for diagnosis, for, from both motor tracts being involved, and a general paralysis necessarily resulting, it is far from easy to distinguish this state from one of coma, or one simply where the voluntary power is for a time in abeyance, as from stupor. You have, for example, a patient lying insensible in bed, and you lift the arms or legs, and they fall lifeless at the side. Does this result from paralysis or coma? I have seen a most experienced Physician mistake a complete case of paralysis for poisoning by opium, and another Physician a similar case for uræmic coma; and, on the contrary, I have seen a most careful Practitioner regard a case of dead drunkenness as one of sanguineous apoplexy and paralysis. The diagnosis is most difficult. In the case of effusion of blood in the pons Varolii, where the patient is insensible and wholly paralysed, the condition is very like that caused by opium poisoning. The resemblance is the more striking when, as is often the case in effusion of blood at the base of the brain, the pupils are minutely contracted; should, again, the respiration be lowered in number or laboured, the similitude would be exact. Thus it has often happened that patients who have been taken to Hospital with apoplexy of pons Varolii have had the pump employed for the purpose of emptying the stomach of supposed laudanum. I should state that the coma is due to the sudden nature of the attack, or to the large amount of effusion of blood, by which pressure is exerted on surrounding parts, but that unconsciousness is no necessary symptom of apoplexy of the pons; and in cases of chronic softening of this part the intellect is in no way impaired. Not long ago a Medical man was most unjustly censured by the magistrate because he had raised a suspicion of poisoning by opium in a case of this variety of apoplexy, and I believe there is scarcely an Hospital in London in which a similar experience of the difficulty of diagnosis could not be given. Some of you may remember the case of a woman who was brought into the Hospital, and when I visited her in bed found her in a state of quiet stupor, and her limbs dropping helplessly when raised from her side. When the urine was examined it was found to be highly albuminous, and I then stated my belief that it was a case of uræmic coma. We were shortly, however, informed that she had been suddenly seized whilst in an omnibus, and then, of course, I changed my opinion to one of sanguineous effusion; but without this history I should have formed an erroneous judgment. Here there was a clot of blood in the pons.

If the portio dura is affected, you may ask, Why not the portio mollis? It is probable that this is much oftener the case than is supposed, owing to the impossibility of discovering deafness in many sudden affections of the spinal centres, but in cases of chronic disease both roots of the seventh pair have been observed to be affected at the same time, and examples noted by Dr. H. Jackson.

The sixth nerve has sometimes been paralysed with the face. I believe Dr. Lockhart Clark has shown that the sixth and seventh nerves arise from the same centre.

As regards the fifth, this nerve has not been so frequently observed to be paralysed from disease at its centre as the seventh; but this may be in part due to the reason before stated—that a deficiency in sensation would not be so readily observable as one of motion: if the face drops, the paralysis is at once seen, but if the patient be unconscious the deficiency of sensation could not be discovered. In chronic disease, anæsthesia of the face has often been observed, and I think I am correct in saying that the loss of feeling has been mostly on the opposite side to the facial paralysis in those cases where the seventh has been paralysed with the fifth.

If we now pass to the upper part of the medulla oblongata, then we have the eighth and ninth pair involved. As you might suppose, it would be rare for these nerve-centres to be touched without the motor tracts also (although I have seen such cases), and therefore you would meet with paralysis of the limbs at the same time. As the two tracts here come in contact, it would be remarkable if one side escaped when the other was diseased, and thus, in all probability, there would be a paraplegia. A good example of disease at this spot is to be found now in Stephen Ward, where a man was seized with a fit, and afterwards became paralysed. On coming to the Hospital he was much in the same condition as at present, weak in both legs and arms, but more especially in the left. As a simultaneous blood effusion in both central ganglia was a very unlikely circumstance to occur, I believed that the medulla oblongata was the seat of the mischief, the right side being more involved than the left; and in this I was confirmed by the paralysis of those nerves which have their origin in this neighbourhood. Thus you will observe that the face drops, I believe on both sides, but at all events it is markedly paralysed on the right, showing that the facial nerve is implicated; but his most striking symptom is the difficulty of speech, coupled with want of power in eating, swallowing, and in holding his saliva. This man is not completely paralysed, for he can walk and feed himself, and at the same time he can make his language understood. It is possible that a disease might involve the centres of the pneumogastric, hypoglossal, and lingual nerves, and not touch the motor tracts. I have seen more than one such case, and it is this affection to which Trousseau, I believe, first gave a distinct name—*Paralysie labio-glosso-laryngée*. Probably many of you are reading his lectures now being translated, and if I remember rightly, he very fully enters upon the symptoms which occur in this disease. This man in Stephen Ward, you will see, speaks with much difficulty; he makes a great effort to do so, and his voice has a nasal twang; his facial muscles are paralysed; his palate, tongue, slightly; and more markedly the larynx. This is shown by his utter inability to cough. A number of parts are concerned in the mechanism of speech—the larynx, mouth, tongue, and lips—and it would seem that the deep roots of the nerves supplying these parts lie close to one another. It might have been supposed that the nerves concerned in such a function as vocalisation would have arisen from the same locality, so that they might work as a whole, and such seems to be the case. It was but lately, however, that Dr. Lockhart Clark and Dr. Jackson

made the observation that the upper or inner root of the recurrent laryngeal has two origins, one in the pneumogastric, and the other in common with the lingual. Let me remind you that the pneumogastric is a compound nerve having sensory and motor fibres, and that the recurrent laryngeal, the nerve which supplies the muscles of the larynx, is motor; this motor nerve is supposed to be formed mainly by the spinal accessory—in fact, it is said that in some of the lower animals it passes direct to the larynx. In the human subject it has, as you know, a very long origin, as low as the fifth or sixth cervical, and these lower roots form the external branch to supply the trapezius and sterno-mastoid muscles. The internal has two roots, one in common with the lingual. You see, then, how disease of the upper part of the medulla, close to the origin of the lingual nerve, may, through this spinal accessory nerve, almost paralyse the larynx. I say almost paralyse, for the same effect is not produced as if the recurrent laryngeal itself was involved, seeing that this contains motor fibres from lingual, facial, and upper cervical. This man's larynx is not altogether paralysed, for if so he could not breathe, but the want of power in the organ is seen by his inability to cough—the attempt produces but the feeblest sound.

If all the fibres constituting both recurrent laryngeals were involved, as occurs often in the case of one nerve from the pressure of an aneurismal tumour, the larynx could not be opened, and the patient would die suffocated. You will see an approach to this in a man now in my ward, who has, I believe, an aneurism of the aorta pressing upon one recurrent laryngeal nerve; he has a husky, stridulous cough, and on examination by the laryngoscope one vocal cord is motionless. Seeing, then, that the larynx possesses two motor nerves, containing filaments from various sources, you can see how, if both are damaged, all respiration must cease; and it would also appear probable that if the patient had lost a certain amount of power, so that he could not use the muscles of the larynx for speech, a partial paralysis of the nerve had occurred—that is, a paralysis of one of its filaments—and it would also be probable, seeing that all these motor filaments are united closely in the one recurrent laryngeal, that in such a case as I am now considering, where the patient can breathe but not speak, the disease would be at the origin of one of these filaments before it joined the others. When it is said, therefore, that disease of the upper part of the medulla paralyses the larynx by involving the source of the spinal accessory, which mainly forms the recurrent, it appears reasonable, although I have not confirmed it by dissection. This numerous muscular supply to the larynx also warrants the statement of Trousseau, that the larynx, having a double function—viz., for vocalisation and respiration—has corresponding nerves for each.

In Mary Ward you will see the same form of disease in a more advanced stage. This woman sits in a chair all day long, as she cannot walk well; her arms are also weak, although she is able to write. She has lost complete power of utterance, and puts down all her wants on a slate. There is a constant dribbling of saliva from her mouth.

A case much more interesting than these is a man who has all the same symptoms as the above, but the paralysis of the limbs is of the form known as progressive muscular atrophy, so that it would tend to show that this latter form of disease is really a spinal one—a subject still in dispute. This man's chest is now becoming paralysed, and he is quite unable to eject the mucus from the air passages, and thus will shortly die.(a)

The simple form of labio-glosso-laryngeal paralysis is that where no paraplegia exists, but the nerves of vocalisation before mentioned are only affected. I watched the case of a lady for two years with this affection. She could walk three or four miles daily, and use her hands well in dressing, eating, or playing at cards, but she could not utter a word, so that all her wants had to be written down on a slate. She had much difficulty in swallowing, owing to paralysis of the tongue, palate, and facial muscles, and the saliva was constantly dribbling from her mouth. This was her greatest trouble. You may generally recognise this class of patients by seeing them sitting with a pocket handkerchief to the mouth.

This paralysis of tongue and pharynx may lead to death by choking, of which I had a painful example in one of my wards a short time ago. The patient, a woman labouring under the form of disease we are now discussing, was seen to fall back whilst eating her dinner. The House-Surgeon was immediately summoned, who found she had ceased to breathe, but passed his finger to the back of the throat. He told me he failed to discover anything. On post-mortem examination, however, a large piece of meat was found in the throat, with a portion in the larynx.

A remarkable case occurred at Liverpool three or four years ago, where a man had complete severance through the restiform body of the medulla. There was a partial paralysis of motion of the arm and leg, but sensation was unimpaired. The origins of the glosso-pharyngeal and pneumogastric nerves were involved, causing complete inability to swallow. He also had constant hiccough. He died suddenly a few hours after the accident.

(To be continued.)

(a) [illegible] a few days afterwards, and a considerable amount of disease in the spinal cord was discovered.

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF WOUNDS UPON THE ANTISEPTIC AND SUBCUTANEOUS PRINCIPLES.(a)

By WILLIAM ADAMS, F.R.C.S.,
Surgeon to the Great Northern and Royal Orthopædic Hospitals, etc.

(Concluded from page 257)

Another simple method of treatment, which owes its advantages chiefly to the subcutaneous, but in some degree to the antiseptic principle, is that of thickly covering wounds with collodion, a remedy which was long in favour till its advantages were eclipsed by Dr. Richardson's new discovery of his colloid styptic. Collodion, however, must be admitted to be a valuable application in cases of incised and lacerated wounds of moderate extent. In several cases of large scalp-wounds under my care at the Great Northern Hospital, one of our former House-Surgeons, Mr. Bryant, succeeded in obtaining union by introducing several wire sutures and thickly coating the wound over with collodion, when there seemed but little probability of such a favourable result.

Next to these applications, I will proceed to make some remarks on one which has far higher claims to the notice of the Profession, in consequence of its fulfilling the combined indications of the antiseptic and the subcutaneous principles in a higher degree than any other application hitherto employed. I allude to Dr. Richardson's colloid styptic, a compound consisting of ether saturated with tannin, with which gun-cotton and tincture of benzoin are mixed.

"The process of manufacture of the fluid," to quote from Dr. Richardson's lecture(b) on the subject, "is tedious, but sufficiently easy. The object to be aimed at is to saturate ether entirely with tannin, and a colloidal substance, xyloidine, or gun-cotton. In the first step of the process, the tannin, rendered as pure as it can be, is treated with absolute alcohol, and is made to digest in the alcohol for several days. Then the ether, also absolute, is added until the whole of the thick alcoholic mixture is rendered quite fluid. Next the colloidal substance is put in until it ceases readily to dissolve. For the sake of its agreeable odour, a little tincture of benzoin is finally admixed. . . . .

"When the solution is brought into contact with an open surface of the body, the resultant phenomena are these: The heat of the body gradually volatilises the ether and the alcohol, and the tannin and cotton, as the ether leaves them, are thus left stranded on the surface in intimate combination. In proportion as the ether passes off, the blood or the secretion of the surface permeates the tannin and cotton; but tannin acts directly upon albumen, coagulating it, and transforming it into a kind of membrane, almost like leather. The cotton meanwhile unites the whole, gives substance to the mass, and adhesive quality. When all is solidified, the dressing becomes, in fact, a concrete, having a true organic hold or basis on the tissues; and as the tannin, if the solution be freely applied, is in excess, any new exudative matter or blood is for several hours taken up by it, and the annealing is made the more complete.

"Thus, by this dressing, the air is excluded from every possible point in every possible direction, not by a mere septum, but by the combination of the animal fluids with the remedy;

(a) Read before the Medical Society of London, March 2, 1868.

(b) Lectures on Experimental and Practical Medicine, by B. W. Richardson, M.D., *Medical Times and Gazette*, April 13, 1867.

and, because the air is excluded and fluid is absorbed, there is no decomposition—*i.e.*, no oxidation; and, because there is no oxidation, there is no irritation. . . .

"In cases of compound fracture, after the parts have been brought into apposition as far as is possible and fixed in the necessary position, the fluid should be poured slowly into the open cavity so as to fill it. Then the parts, externally, should be covered with a layer of cotton-wool saturated with the solution.

"On open cancer, and on suppurating or decomposing surfaces, the solution may be freely applied with the brush, and, afterwards, the parts may be covered with cotton-wool saturated with the fluid.

"In no case need there be any fear that irritation will follow the application of the solution. On the contrary, the action of it is so purely negative that it might be considered a sedative. It is not such in the technical sense of the term, but it so effectually covers the wounded and susceptible surfaces as to maintain what is virtually a sedative influence."

I have now, for more than a year, used Dr. Richardson's colloid styptic in a large number of cases of incised and lacerated wounds, some of formidable dimensions, with complete success in a large proportion of cases. In two-thirds of the cases so treated, I can with confidence assert that union by the first intention has been obtained; or that the reparative process has proceeded either without suppuration, even in bad cases, or with the suppurative process reduced to a very insignificant amount, and in no instance have I seen any injurious effects. In about one-third or one-fourth of the cases, the styptic had to be abandoned in consequence of suppuration occurring, and antiseptic lotion relied upon.

The largest operation in which I have applied it—or rather I should say that in this case Dr. Richardson himself was kind enough to apply it—was amputation of the foot, by Chopart's operation, in a young gentleman, aged 19 years, for extreme deformity of the foot, with anchylosis, after suppurative inflammation which had attacked the left foot, and also the right knee-joint, in consequence of purulent absorption; and I should mention that he was supposed to be particularly prone to erysipelas.

In alluding to this case Dr. Richardson observes: "The operation was performed on Wednesday, February 13 of this year (1867), and as the cuboid bone and os calcis were anchylosed, the saw had to be freely used. Several vessels had to be tied, and the ligatures were left in the usual way suspended from the wound. When the lips of the wound had been brought together by wire sutures, I coated the wound freely with the fluid, and the bandage was applied. Three days later there was no fœtor, no discharge, and no general symptoms, but as Mr. Adams was anxious to see the condition of the wound I undressed it. To our delight we found it healed throughout, but, unfortunately, from the bandage adhering to one of the long ligatures, I, in removing it there, tore open the newly healed wound for the space of a quarter inch. At this broken spot about a teaspoonful of purulent matter formed two days later; but this little break was very quickly reunited, and on the sixteenth day after the operation the patient was able to return to the country with complete healing by the first intention, and without having suffered from one symptom of a constitutional kind."

Another case was that of compound dislocation with fracture of the second phalanx of a finger, produced by a cricket ball at Lord's ground. The patient, Captain McN., came to me immediately after the accident, and after reducing the dislocation and applying three metal sutures I applied the colloid styptic and bandaged the finger to a straight splint. On the fourth day, finding no indication of inflammation, I allowed the dressing to remain, and did not remove it till six weeks after the accident, when I found the wound not only well cicatrised, but the callus was less than I expected, and some motion existed at the joint, which subsequently became quite free.

Another case was one of enchondromatous tumour, growing from the interior of the first phalanx of the third finger of the left hand of a young gentleman, Master K., upon whom I operated on April 3, 1867. My colleague, Mr. Gay, assisted me in the operation, and held the extensor tendon on one side, whilst I gouged out the growth from the interior of the bone, extending as closely as possible to the articulations at either extremity. I applied the colloid styptic to the interior of the bone, and, after applying metal sutures, painted the wound over with the styptic, and applied a little cotton wool saturated with it as a dressing. No suppuration occurred, and the wound healed completely under the first dressing, the boy recovering motion at both the articulations. Nothing could be more satisfactory.

Under my direction a large number of incised and lacerated wounds, including many of considerable size and many scalp wounds, have been treated by the application of styptic colloid at the Great Northern Hospital, by Mr. P. Hopgood, the House-Surgeon. The wounds were generally washed with ether instead of water, or with ether after water had been applied. I have before me the details of thirty-three of these cases, supplied by Mr. Hopgood, but will only read you in a few words the conclusions to which he has arrived. Mr. Hopgood observes:—"Out of the thirty-three cases of recent wounds treated with the styptic colloid, twenty healed by the first intention, requiring no further application than the first dressing; the remaining thirteen required the styptic to be removed, but still in nearly all some amount of adhesion had taken place, although suppuration had taken place in all, requiring the removal of the dressings. The styptic colloid, in my opinion, has these advantages:—It is certainly a great improvement on the 'pad and bandage' usually used in cases particularly of scalp wounds, and without doubt favours greatly, although not certainly, adhesion by the first intention, adjusting by its contractile powers (upon drying) the surfaces of wounds together, and effectually preventing the access of air. It appears to me, from the wounds I have treated with it, to be particularly applicable to clean-cut wounds where the surfaces can be brought accurately together; but the styptic is certainly often successful in obtaining union without suppuration in lacerated and often contused wounds, checking at all times, and often preventing suppuration in a wound which otherwise treated would be nearly sure to suppurate."

The testimony I have now given in favour of Dr. Richardson's colloid styptic as a material for the dressing of wounds, calculated to promote healing by the first intention or without suppuration, superseding the use of plasters, and embodying in the most scientific manner the antiseptic and subcutaneous principles, will, I hope, induce other Surgeons to give this method a more extended trial. It is, I believe, only by such a combination of the antiseptic and subcutaneous principles that we can hope to prevent the more serious results of injuries with open wounds, such as exhaustive suppuration, diffuse inflammation, pyæmia, and death.

The methods of treatment and local applications to which I have referred, have mostly been considered in relation to their power of promoting union by the first intention in wounds of moderate size, or a reparative process without suppuration in wounds of greater magnitude. We have to deal, however, with wounds in which suppuration is already established, and with open ulcers of a more or less chronic character. To these antiseptic lotions are especially applicable. But time will not permit of my entering upon this portion of our subject, which has of late derived additional interest from the study of the antiseptic principle and antiseptic remedies.

I would merely mention that amongst the most valuable antiseptic lotions are—carbolic lotion made in the proportion of one part of carbolic acid to thirty of water, or probably one part in a hundred would be found strong enough for ordinary purposes; Condy's fluid, weak iodine solutions, and weak solutions of chloride of zinc, and also a lotion which has hitherto received much less attention than it deserves—viz., lime-water, as well as solutions of potash and soda. I may add that the alkaline solutions have for many years been favourites of mine, and that it has been my practice to apply lime-water constantly as a lotion to the surfaces of all ulcers and suppurating wounds; it cleanses the sore very quickly by chemically destroying all the pus cells and the secretion on the surface, and also diminishes the inflammatory congestion by its direct solvent action upon the fibrine of the blood in the distended capillary vessels, so that by endosmosis the condition of stasis of the red corpuscles in the capillary vessels is removed. I always use it of full strength in indolent and sloughy ulcers, in which it acts most efficiently in deodorising the ulcer, and as a slight stimulant; but in irritable sores I use it diluted with equal parts of water.

Lime-water, in combination with oil, has long been a favourite remedy in cases of burns and scalds, and in combination with calomel as black wash, and with bichloride of mercury as yellow wash, has long been considered beneficial in many cases of specific ulceration; but, as I have generally considered the benefit to result from the lime-water rather

than the mercury, I have used it simply as an alkaline antiseptic lotion in this class of cases.

As a general summary of the principles of treatment applicable to wounds, which I have arranged in six classes, the following may be given :—

Class 1.—Incised wounds, made by accident, or in operations, in which union by the first intention may be obtained, as in harelip and a variety of plastic operations; also in the removal of small tumours, amputation of fingers, etc.—Rely on the subcutaneous principle alone, or combine with it the antiseptic principle in a subordinate degree. The methods of dressing these wounds which have been mentioned are, blood and dry lint with pressure; collodion; compound tincture of benzoin; Dr. Richardson's colloid styptic.

Class 2.—Incised wounds made by large Surgical operations, such as the removal of breast tumours, amputations, or excision of joints, in which partial union by the first intention may be obtained.—Combine the subcutaneous and antiseptic principles. Wash the wound with antiseptic fluid; then the colloid styptic may be used; and, if suppuration follows, apply carbolic lotion or lime-water.

Class 3.—Lacerated wounds of moderate size, including most scalp wounds in which partial union by the first intention may be obtained; and many compound fractures with small external wounds.—Combine the subcutaneous and antiseptic principles. Use the colloid styptic, and, if suppuration occurs, carbolic lotion or lime-water. The colloid styptic is particularly valuable in scalp wounds, as superseding the use of plasters, or bandages and pads.

Class 4.—Lacerated wounds of large size, where union by the first intention is hopeless.—Rely chiefly upon the antiseptic principle, and the subcutaneous in a less degree. Use carbolic lotion to the deeper portions of the wound, and apply carbolic oil and paste to the surface of the wound. Avoid caustic antiseptics.

Class 5.—All suppurating wounds, including chronic ulcers.—Rely upon the antiseptic principle. Use carbolic lotion or lime-water, Condy's fluid, iodine solutions, weak solutions of chloride of zinc, etc.

Class 6.—Burns and scalds.—Rely upon the subcutaneous principle, but the subcutaneous and antiseptic principles may be combined. Use thick paste of whitening mixed with carbolic lotion or weak carbolic oil, flour, cotton wool, or oil and lime-water, with which in the suppurative stage a little carbolic acid may be mixed.

In concluding these remarks I would venture confidently to express my opinion that if in the treatment of wounds we combine the antiseptic and subcutaneous principles according to the rules I have now laid down, we shall succeed in a large proportion of cases in preventing the more serious evils of suppuration, diffuse inflammation, and pyæmia, which now so frequently lead to a fatal termination.

NOTE ON THE COMPOSITION OF THE URINE IN A CASE OF LEUCOCYTHEMIA.

By CHARLES BERRELL, M.B. Lond.

The urine in cases of leucocythemia has hardly received that amount of attention the interesting nature of the disease might lead us to expect. The published analyses are comparatively few, while whole series of cases are recorded with clinical facts in minute detail but with a mere passing notice of the more obvious physical characters of this secretion. In a case of Dr. Parkes's the daily excretion of uric acid was found to be greatly increased, both absolutely and in comparison with the urea (uric acid 31·5 grains, urea 427·5 grains—*i.e.* 1 : 13 nearly, the proportion in health being 1 : 60), the amount of chlorine and of sulphuric and phosphoric acids not being stated. Thierfelder and Uhle (quoted by Parkes) found a similar increase in the quantity of uric acid, and in their cases the amount of urea was slightly above the average. In a case of Dr. Walshe's the uric acid was also found to be increased. Scherer found hypoxanthin in the urine and blood, this substance being a normal constituent of the spleen. The subjoined analysis was made in an extremely well-marked case of the disease in King's College Hospital last winter, under Dr. Beale, by whom I am kindly permitted to make use of the case.

The patient was a boy, æt. 17, a baker. On admission into the Hospital, four months before death, the splenic dulness occupied the left hypochondriac, lumbar and iliac regions and part of the umbilical region, the edge of the spleen being felt to the right of the umbilicus. He was very anæmic, and the blood, upon microscopic examination, was found to contain a large excess of white corpuscles. During the time he was in the Hospital the spleen increased in size, dulness extending into the infra-axillary region, and the abdomen and thorax on the left side being greatly bulged. The liver was also hypertrophied. A month before death the cervical glands enlarged and suppurated. At the post-mortem examination, the spleen was found to weigh 9 lb. 2 oz., and, upon microscopic examination, presented the usual appearance of simple hypertrophy of the normal tissues. The liver, healthy in appearance, weighed 7 lb. 10 oz. The kidneys were pale and mottled, weighing 16½ oz. The mesenteric glands were much enlarged, as were also the lymphatic glands throughout the body. The urine was analysed a few days before death, the quantity passed in twenty-four hours being somewhat less than the average, but having the same physical characters as on previous days—viz., high specific gravity, and an abundant deposit of lithates.

Urine of twenty-four hours 26·5 fluid ounces; specific gravity 1033·8.

	Total quantity.	In 1000 parts.
Urea . .	504·60 grains	41·58
Uric acid .	18·28 ,,	1·50
Chlorine . .	9·26 ,,	·75
Phosphoric acid .	41·05 ,,	3·38
Sulphuric acid .	41·80 ,,	3·49

In addition to the above a considerable quantity of Leucine was obtained by careful evaporation. It occurred in small crystalline aggregations of exceedingly characteristic form, soluble in boiling water, and subliming without change.

This analysis corresponds with those previously published in the largely increased quantity of uric acid, absolutely and as compared with the amount of urea (1 : 28), which, in this case, is also in considerable excess. The amount of chlorine is remarkably diminished, and the sulphuric acid nearly double the theoretical standard. These points will be more clearly seen by comparing the above figures with the following, which represent the quantities of the urinary constituents excreted in twenty-four hours by a lad of similar age and body-weight, the necessary allowance being made for rest and scanty diet. They are calculated from the tables of Dr. Parkes :—

Urea	361·5 grains
Uric acid	6·0 ,,
Chlorine	76·0 ,,
Phosphoric acid . . .	34·5 ,,
Sulphuric acid . . .	22·0 ,,

The pathological significance of leucine as a urinary constituent is as yet unknown. It has been found in several organs and secretions, but never in healthy urine. It has been detected in the urine of typhus and small-pox, together with tyrosine, and in cases of acute atrophy of the liver these substances are especially abundant, apparently replacing the urea, which is either in very small quantity or altogether wanting. Leucine and tyrosine being thus intimately associated, I naturally sought for the latter, but could obtain no evidence of its presence by microscopical examination, or by the application of Hofmann's and Piria's tests.

From the above facts it will be seen that in these cases there is increased metamorphosis of the nitrogenous tissues, and that metamorphosis of an abnormal character.

ON DISINFECTANTS.

By WILLIAM PROCTER, M.D., F.C.S.

(*Continued from page* 229.)

Under the term disinfectant I shall include those substances which owe their peculiar action to oxidation. Oxygen, on account of its wide chemical affinity, is the great purifier of nature, and the great natural disinfectant carried on most energetically by the allotropic form of ozone. When we imitate this process by artificial means, the action is complete and perfect, as exemplified by rapid combustion, by eremacausis artificially established by the action of air, or by chemical agency. It is to the latter that disinfectants, in the ordinary sense of the term, depend for their mode of operation, and one great bar to their employment on a large scale is expense, but on a smaller scale they admit of a wide sphere of application. On comparing this class with antiseptics, we find that the energy of the former is in the first place exerted upon the

volatile products of decomposition, leaving the true organic matter to be affected when all the former has been destroyed. So that, the sense of smell being made the test of their operation, there may be perfect deodorisation without the destruction of more noxious matter. No essential connexion exists between deodorisation and disinfection, for there is no evidence to prove the necessary association between infectious disease and odorous matter. Bad smells may and do become noxious if concentrated—as, for example, in our houses if the drains and all other impurities are allowed to give off miasms, they become a source of disease; but in the open air, when largely diluted, their injury to man is doubtful. A bad odour is an indication that ventilation, at least, has been neglected, and may afford a valuable index to infection; but if this is removed by a deodoriser, then the safeguard afforded by the smell becomes nugatory, the unpleasant odour is removed, but the contagious poison continues and accumulates.

Nitrous acid and chlorine, when they disinfect, act by oxidation, the former by directly, the latter by indirectly, furnishing oxygen. Nitrous acid contains much loosely combined oxygen. This it readily gives up, and is converted into binoxide of nitrogen, which on its escape by union with a fresh supply of oxygen again becomes nitrous acid, so that this gas plays the part of a carrier of oxygen to atmospheric matter, and destroys it rapidly. Dr. Carmichael Smith at Winchester, and subsequently in the fleet at Sheerness in 1785, employed nitrous fumes successfully in the removal of a pestilential fever. The destruction of organic matter under the influence of this acid is very perfect, but is at the present time rarely used for disinfecting purposes in dwellings. The vapour is, in small quantity and extremely diluted, more or less injurious to the respiratory organs, and, as Mr. Crookes has pointed out, being absorbed it forms with the lime of the walls and ceilings of the rooms a deliquescent compound, which tends to keep up a condition of moisture likely to assist in the spread of infection. Still, the evidence of the value which has attended the evolution of nitrous acid in fever wards, when means are taken to distribute it equally and in proper quantity, is irresistible.

Although the disinfecting powers of chlorine were noticed by Berthellot shortly after the discovery of that gas in 1774, its employment cannot be dated farther back than the commencement of the present century, when Gayton, Norveau, and Dupuytren first pointed out its value. Chlorine is an energetic destroyer of all organic substances prone to decay, liberating the nitrogen in a gaseous state, breaking up into simple combinations ammoniacal, sulphuretted, phosphuretted, albuminous, and cyanogen compounds, but exercising an influence rather upon dead than living matter. This assertion is illustrated by an experiment made by Mr. Crookes. Cheese mites with strongly smelling cheese was put into a solution of sulphuretted hydrogen; the odour was destroyed by a small quantity of chlorine, but much more was needed before the mites were destroyed. When the experiment was repeated without the addition of the gas, and there was nothing to divert the energy of the chlorine, the mites were killed with a quarter less of the solution. These properties constitute it a powerful deodoriser. In the state of gas especially, chlorine has great powers of penetration, destroying all that it attacks, but in killing it dies, for that which is left undestroyed has no power of resisting further decomposition conferred upon it. If in sufficient quantity, in its presence all animal and vegetable matter is destroyed. Meat boiled with chlorine is perfectly disintegrated. The action of this gas is more energetic than that of oxygen, and this may probably arise from its operation being due to the liberation of the latter gas in a nascent condition.

For rapid results in cases of great impurity chlorine is a most valuable disinfectant, and preferable to nitrous acid; but precisely the same objections exist to its use, from its effects on the respiratory organs and the production of a deliquescent salt with lime. In ordinary cases of fumigation the senses seem to be the best test of the quantity to be used: if there is chlorine enough in the air to give a faint smell, it will be found in quantity sufficient to disinfect. When the hypochlorite of lime is used, the addition of a few drops of nitrobenzole will mask the unpleasant odour.

Iodine and bromine, chemically allied to chlorine, have, like it, great power of removing atmospheric impurity. Bromine is said by Chevallier to be more energetic than iodine, but the expense, unpleasant odour, and extremely irritating character of the fumes are powerful practical arguments against a very general employment of it. More attention has been paid to iodine. Duroy in 1854 showed that it was a powerful arrester of putrefaction, and in 1855 Reynoso showed that by its agency the poisonous property of curare was destroyed. Wynn Williams, Nunn, and Richardson have used this substance as a disinfectant. In a moderately warm place iodine diffuses itself, or this diffusion may readily be accelerated by heat. Dr. Richardson proposes to saturate a solution of peroxide of hydrogen with iodine, adding two and a half per cent. of sea salt, and to diffuse this in the form of spray by means of his instrument. The disinfecting and deodorising properties of iodine are very similar to those of chlorine, and, while fully admitting its great value and efficacy, yet considering the facility with which the vapour of iodine condenses, its extent of diffusion may be limited, and for general application does not seem to admit of that wide scope of utility possessed by chlorine.

Solutions of the alkaline permanganates have been patented by Mr. Condy for the purposes of disinfection. They contain a large quantity of oxygen, which they give up freely to putrid matter and destroy it by oxidation; in this respect differing from chlorine and its allies, which furnish the oxidising material indirectly. They rapidly hasten decomposition to the last stage, destroy the odours of putrefaction, and have the effect of decomposing sulphide of hydrogen or ammonium which may be present. These properties render the permanganates delicate tests for the presence of organic matter in air or water. Their principal application is in the disinfection of liquid organic matter or water charged with decomposing material. This latter, if even of the most offensive character, is immediately deodorised by their agency, added until a decided pink tinge is communicated, and often when other substances have been ineffectual. Mr. Condy has also shown that these salts have the power of removing lead with which water may have become contaminated by precipitating it, as the peroxide of that metal. Whilst the bitter taste of quassia, etc., is destroyed by the manganates, they do not readily act upon starch unless decomposing. It has been proposed to employ them for the purification of air by distributing their watery solution through the apartment in the form of a jet or spray; but this plan is open to several objections. Condy's fluid, not being volatile, acts only on fixed substances. From its energetic action on all kinds of organic matter, it destroys clothing, and, being neutralised by every species of organic substance, has its efficacy at once destroyed. Nevertheless the characters which the solutions possess render them well adapted for numerous purposes—such as the disinfection of alvine discharges, of ulcers or cancerous sores, purification of water, tainted provisions, etc.—but the expense and quantity required preclude their employment on an extensive scale; and then, again, like all oxidisers, they destroy that upon which they act, but do not prevent decay from commencing again. Their deleterious action upon organic life is not very marked; animalcules will live and be active in water retaining the pink colour given to it by Condy's fluid—therefore the purification of this liquid by these means alone is not perfect, but should be supplemented by boiling.

(*To be continued.*)

The Riberi Prize for 1871.—The Royal Academy of Medicine of Turin will, in 1871, adjudge the triennial prize of 20,000 lire, left by Riberi, to the author of the work, whether printed or manuscript, or of the discovery during the years 1868-69-70, which work or discovery shall, in the estimation of the Academy, be deemed as having most contributed to the progress and advantage of Medical science. The manuscripts or printed works must be in French or Latin, or, if translated into these, the originals must also be forwarded. Authors are requested to indicate the points in their works which they deem of most importance. All works to be sent in by December 31, 1870.

Origin of Stage Coaches in France.—The first coaches belonged to the University of Paris, the *messagers* of which were authorised to undertake the charge of the transport of money and merchandise. They were originally set on foot for the purpose of conveying the students to Paris and taking them back to the provinces, and were accustomed to set out on their journeys at somewhat chance periods, according to the amount of business they had in hand, the weather, or even their fancy. The first regular public service between Paris and Orleans was established in 1571, and the celebrated *messageries royales*, which continued until our own times, were first organised only in 1775.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GUY'S HOSPITAL.

NOTES ON THE TREATMENT OF SKIN DISEASES.

(*Continued from page* 231.)

(Case under the care of Dr. WILKS.)

THE following case of pemphigus differs remarkably in certain features from the ordinary cases of the disease, and illustrates most strikingly the good effects of arsenic. It is reported by Mr. Elphick :—

F. S., aged 13, admitted under Dr. Wilks's care into Stephen Ward, October 16, 1867. He had for nearly seven years been affected more or less constantly with an eruption, for which he had been attending as an out-patient under the care of Mr. Cooper Forster. At first the eruption was an ordinary pemphigus, attended with the formation of large bullæ, which appeared on the lower limbs, genitals, face, and shoulders. It has repeatedly been cured by arsenic, but has broken out again and again, always, however, yielding readily to the remedy.

On admission he seemed a delicate-looking boy. He had been well fed. His urine was once noted to be of rather low specific gravity, and to contain a trace of albumen. The legs were markedly œdematous. Each leg presented a large reddened patch, with irregular edges, having on its surface flaccid vesicles as large as peas, running together into blebs of irregular form. Some brown crusts also existed on the patches, and the cuticle at other points was peeling off. He said that there was a good deal of itching. The appearance of the affection thus differed very markedly from that of an ordinary pemphigus. The bullæ were of no great size, and were not scattered over the surface, as is generally the case.

During thirty-six days various local applications were tried by Dr. Wilks—the ung. metallorum, the ung. plumbi subacetatis, the lotio plumbi, a mixture of carbolic acid with eight parts of olive oil. As it had been thought at first that the affection might be factitious, the legs were strapped up while these remedies were being applied. No application, however, did any marked good. The ung. metallorum, in particular, gave him much pain, and the bases of the vesicles showed some tendency to ulcerate while it was being applied. Under the use of the lotio plumbi the vesicles assumed a pustular character. The mixture of carbolic acid and olive oil was at first applied to one leg only; but, as it relieved the pain and itching, it was subsequently used to both, and was applied on lint, the strapping being now discontinued. Fresh vesicles or bullæ continued to be formed

During this time no internal medicine was given; but, on November 21, he was ordered to take three minims of the liquor asenicalis t. d., and to discontinue all local applications. In five days it is noted that "the legs have much improved in appearance; most of the vesicles have become scabbed over, and the general surface of the legs appears almost healthy. There are no fresh vesicles." On November 30 "the legs present almost a healthy appearance; most of the scales have separated, and there are no fresh vesicles. There is still a little œdema of the legs." On December 12, the medicine was discontinued. A few days afterwards, one or two fresh vesicles appeared, but quickly subsided. However, on December 24, a fresh outbreak of the disease occurred. It then appeared on the scrotum and penis, which became reddened, and presented numerous vesicles of irregular form, exactly like those which had been observed on the legs. Successive crops of these vesicles have since appeared. The boy said that the same parts had been affected before, and much more severely. The liquor arsenicalis was now resumed, and with the same result as before. The eruption quickly disappeared, and he is at the present time (January 18) entirely free from it.

Among the less common forms of cutaneous disease, there have recently presented themselves three cases to which Dr. Fagge gave the name of Lichen planus, a name believed to have been first employed by Mr. Wilson.

The first case was that of a woman aged 31. She was not in very good health, and was nursing a child. The eruption had appeared about six weeks before on the wrist. It gradually extended up the arm, and had recently reached the chest. On the inner side of the right forearm there was a line of red papules, scarcely at all scaly, many of which cohered into patches. The affection began immediately above the wrist, ran along the whole length of the forearm and of the arm, coursed along the edge of the anterior fold of the axilla, and passed downwards and inwards to the median line near the ensiform cartilage. It reminded one forcibly of a "*zoster brachialis*," but the eruption was quite dry, and consisted simply of red glazed papules. The back was entirely free.

The papules were larger, and the line which they formed was broader, on the forearm than at any other part. There was also a second line of scattered papules internal to the principal one, and running up to the internal condyle.

It was afterwards noticed that the papules could also be traced along the palm of the right hand towards the root of the ring finger. On the left upper extremity there was a group of similar papules just above the wrist, but on the radial side of the forearm.

The affection was very irritable, but was not worse at night. The treatment prescribed at first consisted of the mist. rhei comp., and afterwards of the mist. quiniæ with ferri sulphas. No improvement, however, took place during the first fortnight; and therefore Dr. Fagge ordered a lotion containing four grains of the bichloride of mercury and two drachms of the dilute hydrocyanic acid to four ounces of water. This was followed by a marked improvement. At the end of three weeks it is noted that there was no itching nor tingling, except when the lotion was applied; no fresh papules had formed, and the old ones were paler and less raised. The papules on the other wrist were now scarcely visible. A week later still greater improvement had taken place.

The appearance of the papules themselves was precisely that which Mr. Erasmus Wilson describes as characteristic of lichen planus, and it is remarkable that he mentions the front of the forearms, just above the wrists, as the principal seat of the disease. But he speaks of it as unattended with itching, whereas in the case above related there was much pruritus. It is questionable whether the lichen ruber of Hebra is not this affection in a very severe form.

Two similar cases have since been seen at Guy's. One occurred in a girl aged 15. On the backs of the forearms and hands were the characteristic flat papules, collected into groups, and cohering so as to form branching lines. On the flexor surfaces of the forearms were similar papules, but isolated and less numerous. On the legs there were scattered scaly spots, of minute size, resembling a psoriasis guttata, and this seemed to suggest that there is an alliance between lichen planus and psoriasis. The girl said she had "had the scurvy for years and years," having had "patches, white, quite dry, and as big as crown pieces," on her. She was ordered to take two minims of the liq. arsenicalis ter die. At the end of a week she was directed, besides continuing the medicine, to apply a lotion of bichloride of mercury (gr. ij.—ʒj.) to the left forearm. A week later she was much better. The papules were less raised, and were now distinct instead of cohering together. After that time no further notes were taken of her condition.

The other case is at present under observation. The patient is a woman, aged 45, who has an eruption above her wrists. This first appeared a month ago, after she had been washing. There has been no moisture about it. On the front of the left forearm are shining livid papules, of a purplish-red colour, cohering together into flat masses. Several similar papules are scattered over the right forearm also, and over the backs of both arms.

She was ordered to take the mist. rhei comp. bis die, and to apply the same lotion which had been used in the two preceding cases. However, instead of improving, the eruption became decidedly worse. On December 10 it is noted that on the forearms the papules have coalesced into large livid purple patches. In the flexure of the left elbow are several peculiar linear elevations, nearly an inch long, looking very like scratches, and covered at their summits with whitish lines. She was ordered to take liq. arsenicalis ɱiij. ex inf. gentianæ co. ter die.

Dr. Fagge remarked that he had met with no description of the disease except that given by Mr. Wilson. It might very probably have been supposed to be syphilitic, but this was certainly not the case.

Of several cases of lupus which have been under observation during the past year, two have been cured, one by local treatment, the other by cod-liver oil.

The first patient was a girl aged 15. She had always been

healthy, but for twelve months had a disease of the skin of the septum and tip of the nose. The part affected was reddened and thickened, and presented slight tubercular elevations, having a few scales on them. The whole disease was not larger than a small bean. There had been no itching nor pain. She attended as an out-patient for some time, and took cod-liver oil; but as no improvement took place, she was admitted into the clinical ward under Dr. Fagge's care. Mr. Durham was then asked to see her, and determined to destroy the disease by the newly invented gas cautery. This was done under chloroform. The pain after she came to was quite trifling, so that a subcutaneous injection of morphia which had been ordered was not required. The part quickly healed, and she went out after a few days. The scar left was very slight.

The other case of lupus referred to above was much more severe. The patient was a young, delicate-looking girl aged 18. The tip of the nose was greatly enlarged, and covered with numerous tubercles sprouting from its surface. It was thought that it would be necessary to destroy the affected part with caustics, but in the meanwhile she was ordered to take syr. ferri iodidi ʒss., and ol. morrhuæ ʒss. bis die. A little diluted ung. hydrarg. was at first applied to the nose, and subsequently the ung. metallorum. The treatment was continued without change or intermission for several months. She rapidly began to improve, and in the course of three or four months the tubercles all disappeared, leaving a depressed cicatrix, but with very little alteration in the form of the part.

THE LONDON HOSPITAL.

PART OF A CLINICAL LECTURE ON CERTAIN INJURIES TO THE HEAD.

(Cases under the care of Mr. HUTCHINSON.)

Cases of Speedy Death after Injuries to the Head.—Concussion probably an Important Element even in Severe and Complicated Cases.

GENTLEMEN,—I have often tried to explain that although we never find patients dying of concussion of the brain without other cranial or cerebral injury, yet probably, in many of our complicated cases, concussion is still the real cause of death. Let me mention two recent cases.

A child of about 2 years fell from a window and was taken up insensible, and at once brought here. He was in collapse, very pale, and with a cool surface. His head was much bruised, and the bruises concealed the fractures which we suspected to exist. He was ordered to have hot bottles, etc., and I waited for his rallying. He did not rally, however, but died a few hours after my visit.

At the autopsy we found extensive fractures of the vault of the skull, with effusions of blood beneath the scalp. There was no material depression, but beneath the right parietal bone the dura mater had been torn, and the surface of the hemisphere lacerated. This laceration was quite superficial and to no great extent. It was the only injury which the brain mass had sustained. There was a little blood clot over the laceration, but only very little. The fontanelles were not yet closed, and the bones were thin and flexible.

Now, if I ask you of what this child died, you will reply "of fracture of the skull," and the existence of such extensive fractures as we found might certainly seem, at first thought, an adequate explanation. Yet let me ask how the case would have been had those fractures been produced (were it possible) without shaking the brain? It is clear that mere division of the cranial bones into fragments would not have caused death. Nor would a slight laceration of the surface of one hemisphere, if it had been caused without concussion. It might have produced death by arachnitis, but certainly not speedy death by collapse. We are obliged then to regard these fractures and this laceration rather as concomitants of the general injury than as themselves the causes of death. They prove that the violence received was very great, they are the measure of the concussion to the whole brain, but it was the concussion itself which probably brought about the suspension of the vital functions.

Our next case is less definite, for the damage done to the brain was greater. Still, in this also I assert that the damage was not so great but what the patient might have easily survived it for a time, had he not sunk from the immediate effects of concussion.

A young man, whilst drunk, fell violently from his cab-box against a tree. He was carried into the Hospital quite insensible and bleeding from the nose. He had a slow pulse and irregular respiration. When first admitted it seemed as if he would not live many minutes, but he improved a little, and did not die until three hours later. All reflex movements had been absent in his legs, and they were imperfectly produced in his arms, better in his left than in his right arm.

The autopsy showed a bruise under the scalp on the right of the occiput, and beneath this bruise there was a long fissure fracture passing downwards to the right of the foramen magnum and upwards into the parietal bone. The dura mater was not torn. The under surfaces of both anterior lobes of the hemispheres were bruised, and some blood was effused into the pia mater. The apices of the sphenoidal lobes also were bruised. The contusion both of the anterior and middle lobes was greater on the left than on the right side. These bruises were clearly the result of *contre-coup*. In the cavity of the arachnoid on the left side there was more than an ounce of almost fluid blood. Those who had watched the man's death had supposed from his collapse, slow pulse, and irregular breathing, that the mesocephale or medulla itself must be injured. There was, however, no damage whatever to these parts, nor to any central portion of the brain mass. On carefully slicing the latter, not a single speck of extravasated blood could anywhere be found. The injuries were superficial only, and they were to parts of the brain of no great importance as regards vital functions. We have often found more extensive damage to these lobes, and more effused blood too, in patients who had lived for several days and had shown signs of much better consciousness than this man did. The blood present may have caused some degree of compression, but not much. I think that we must consider that the cause of the man's speedy death and of the urgent symptoms which he displayed from the moment of the accident until he died was mainly the severity of the concussion which his brain had received.

In connexion with such cases as these, especially with the first, the question suggests itself whether we might not do well to use stimulants more freely than is our custom in the collapse stage of severe injuries to the head. It is just possible that now and then a patient might be made to rally whom under our expectant plan we allow to sink.

METROPOLITAN FREE HOSPITAL.

CASES BEARING ON THE QUESTION OF THE OCCASIONAL RELATION BETWEEN SCROFULA AND HEREDITARY SYPHILIS.

(Communicated by Dr. C. DRYSDALE.)

Case 1.—Mary B., aged 20, seen January 1, 1867. Her sight is very dim, especially of the right eye, from interstitial keratitis. There are marks of scars at the angles of the mouth. Teeth quite of the type described by Mr. Hutchinson. The two upper incisors were convergent, notched, and, instead of resembling chisels, as healthy teeth do, they were round and like pegs, with horizontal markings. Not deaf. Her mother says she never had any spots when she was a baby. She suffered from fits and abscess in the thigh during her childhood. Her mother, aged 42, married at 17, had her first child two years after marriage, having had one miscarriage previous to this. The first child was healthy, and is now alive and well, aged 24. The next child was still-born. The next, Mary, the patient, when three months old, had abscess on the buttocks, and snuffles, but neither eruption nor glandular swellings, as far as the mother could recollect. The patient's father, a police-constable, had been ill a year before the patient's birth, and had infected her mother, who suffered from falling of the hair, sore throat, and eruption, at the time when she was pregnant with the patient. The next child born after the patient lived only thirteen days. The next to this was still-born. Next, a girl, who is now 16 years old, came to Dr. Drysdale with a large glandular swelling on the side of the neck, left side, and suffering from anæmia and weakness. She is very strumous in her aspect, and has regularly formed teeth. A brother, aged 12, was also brought to see Dr. Drysdale, suffering from weakness, and of a very pallid aspect—what would be called strumous by many. Lastly, another brother, aged 5½, attended the Hospital for weakness and general bad health. He too was pallid, thick-lipped, and had suffered from abscesses in the neck. The mother had borne eleven children, of whom five only are now alive.

This case would seem in some degree to countenance the views of Sir William Jenner, but Dr. Drysdale believes that such cases are rare and exceptional.

Case 2.—Susan D., aged 13, Bartlett's-passage, Holborn, seen December 15, 1867. The patient can hardly see with the right eye, and only imperfectly with the other. The corneæ are like pieces of ground glass. There are large nodes on the left tibia. She has not yet menstruated. The middle incisors are convergent, and offer the appearance described by Mr. Hutchinson. She is not at all deaf. To take syrup of iodide of iron 5j. t. d. The patient's mother had six children before this one, all born at full time; but four of them died. The first died of abscess, as a baby; the second of jaundice, as an infant; the third child is alive, and the fourth alive; the fifth died of abscess as an infant; the sixth had spots all over it, and died when aged ten weeks. It snuffled, and had an eruption on the buttocks and feet. Her husband is in delicate health. Susan, the patient, had snuffles from her birth. After her the next child died in its early infancy, and then three children after this died of "measles," one after the other, in early childhood.

Dr. Drysdale is of opinion that in most cases syphilis has no power to excite struma, and, above all, that it has no power to excite the formation of tubercle in the lungs, etc., as seems to be asserted by some; that children affected with hereditary syphilis, though often doomed to a life of great suffering, are not more liable to phthisis than those whose parents are equally free from a specific tendency to tubercles; and that the diseases they suffer from are of a marked character, and easily recognised to be of a syphilitic origin by persons accustomed to the appearances caused by this formidable infection.

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SATURDAY, MARCH 14, 1868.

THE WRONGS OF FEMALE DOCTORS.

The line which we have taken with regard to the study of Medicine by women has been uniform, and, as we think, consistent with common sense. In the first place, we have always said that until women are well provided for by men, and so long as they are compelled to earn their own living, men have no right to debar them from any employment which they may think fit to pursue. With regard to Medicine, we do not advise them to attempt it, and we think them unfitted for it as a body. A very few may have the requisite capacity and endurance; but these must sacrifice more than they can ever gain by their devotion to studies the most repulsive and unwomanly, and by a practice which is inconsistent with marriage and ordinary family duties. Still, if women choose to follow Medicine, let them; it is their business, and not ours. But, for the sake of common decency, let them have schools and examinations of their own. We can assure the outer public that Medical students, though compelled to study and discuss every natural structure and function without reserve in their schools, yet would hesitate to do so before their sisters; and it is as unfair and indecent towards young men to allow young women to intrude into their dissecting-rooms, as it would be for young men to haunt a milliner's workroom. If strong-minded women desire to study Physic, a very little exertion on the part of their philosophical friends would procure for them a Hospital and school and examination board of their own. But the present buildings, institutions, and studies are adapted to one sex only.

Women, we always confess, get the worst of everything in this world. Their bodily frames are prone to sufferings from which men are exempt, and in the joint duty of propagating the race that painful and dangerous share which falls to woman's lot is only rendered endurable by instincts which place her whole happiness in the welfare of husband and children. Girls are worse fed, worse groomed, aired, and exercised than boys, and worse taught. Whilst the boys romp in the open air and eat juicy mutton, girls too often are shut up in frowsy schoolrooms, forced to dawdle instead of taking wholesome exercise, and often, even in pretentious families, have greasy and indigestible scraps for dinner which ought to be thrown out of the window—minced mutton, to wit, or cold drumsticks of chickens, or any odds and ends saved from their parents' dinner of yesterday, with absolutely no fresh vegetables.

We think it of the highest possible importance that female education should be put upon as sound a basis as that of boys, and that, instead of the scraps of ornamental knowledge at present served out to them, girls should have a solid training in Latin, arithmetic, and French. Then we should have women able to fulfil that most natural and pleasing task, the education of their own and of other persons' children. It is perfectly absurd to say that there is lack of occupation for women. Let any man of sense advertise for a governess and offer the most liberal salary, and what kind of persons are found to answer the call? Daughters of gentlemen or of professional or tradesmen, possessing (as they say) "French, music, drawing, and all the elements of a sound English education." Then ask one of these poor creatures to read a page of Montaigne, to tell the construction of half a dozen chords, to sketch a teapot accurately, to add together any two fractions, decimal or vulgar, and how do they stand the test? We do not blame them, poor creatures; they have never been educated enough to feel their own ignorance; but there they stand, unable to do more than put on others the thin varnish of "accomplishments" which themselves possess. Common sense endorses the words of St. Paul—"Let the younger women marry, bear children, manage the house;" and for this a more substantial education would fit them; and, with full occupation of a kind fitted to their sex and strength, we should have fewer aspirants to the pleasure of opening dead bodies and imbruing their fingers in the stinking gore of the dissecting-room.

We have seen in the *Daily News* of March 6 a charge against some Medical journal of endeavouring to induce the Medical Profession not to meet in consultation some one of the lecturers of the Female Medical College. It is unnecessary to remind our readers that no such bit of tradesunionism ever appeared in our columns.

ORGANIC MATTER IN WATER.

The chemists, with all their well-meant efforts to demonstrate the quantity and quality of the much-dreaded organic impurities of water, seem only to have succeeded, up to the present time, in demonstrating their total ignorance of both. Methods without end have been tried, theories without end have been started, and the present result is that no living chemist can pretend to say how much organic matter a given sample of water contains, or, except in well-marked cases, can go beyond a guess in deciding on its goodness or badness. A cursory study might indeed almost persuade us that our knowledge of the subject had retrograded during the last few years, for the methods upon which reliance was formerly

placed have been upset, while those which have been substituted for them seem hardly less liable to error, and are treated with suspicion even by their very inventors. Of course this is in reality a sign that progress is being made; but the progress is so slow in proportion to the amount of thought and labour lavished upon it, that it does not incline us to look very hopefully to the future.

How easy it seems, in reading one of the older treatises, to determine the quantity of organic matter a water contains! Evaporate a pint of it to dryness, and weigh the residue, burn it and weigh it again; the loss of weight is the organic matter. But unfortunately we now know that the numbers so obtained not only do not truly represent the organic matter, but stand in no constant relation to it; so that, in spite of all the refinements that have been introduced into the process, such as the addition of carbonate of soda before the evaporation, and of carbonic acid water after the burning, its indications have come to be looked upon by chemists as of very slight value. It will be sufficient illustration of the causes of this distrust to mention that Dr. Frankland has recently proved that the organic matter is not entirely removed by burning, and that it may even happen that a water residue will weigh more after burning and treatment with carbonic acid than it did before, so that not only is no organic matter indicated, but there really seems to be less than none! This case has happened repeatedly within our own experience.

Some seventeen years ago another method of determining the organic matter in water was suggested by Forchhammer, and it has of late been very largely employed. It consists in the determination of the quantity of permanganate of potash which is decolorised by a given volume of the water. The permanganate, of course, yields its oxygen to the organic matter, and Dr. Frankland expresses the result of the operation by stating the weight of the oxygen which is thus transferred. Dr. Letheby, following another system, calculates the organic matter from the oxygen, assuming that the former is equal to oxalic acid in its capacity for combining with oxygen—an assumption which is very open to dispute. Into the details of the process it is unnecessary to enter, because all trust in it has been destroyed by some recent experiments of Dr. Frankland. He has shown that different organic compounds differ extremely in their effect upon the permanganate solution, and that some whose presence it is the most necessary to detect—urea, for example—scarcely reduce it at all. It is, therefore, obvious that although the process may still be found useful as a source of auxiliary information, it cannot be relied upon as a means of determining organic matter.

Of more real value was the suggestion advanced in 1856 by Hofmann and Blyth. They first drew attention to the significance of nitrogen in the organic matter as a sign of the presence of putrescible animal matters. They proposed to ascertain—1. The total quantity of nitrogen; 2. The nitrogen existing as ammonia; and, 3. The nitrogen existing as nitrates and nitrites. The two last determinations have, from that time, formed a regular portion of the examination of a water, and afford most valuable indications; but the first has not generally been attempted. An ingenious and simple method for the determination of all three was proposed last year by Messrs. Wanklyn, Chapman, and Smith, but we pass it by because it has been stigmatised as incorrect by most chemists who have tried it, and because one portion of it has been distinctly confuted by Mr. Dugald Campbell, whose accuracy is unimpeachable.

But the most important contribution which has been made to water analysis for some years is the method described by Dr. Frankland in a lecture delivered January 16, 1868, to the Fellows of the Chemical Society. He commenced by a careful criticism of the processes for the estimation of organic matter which are in most general use—a criticism which demonstrated only too completely their utter unreliability—and then described a perfectly new system, which, whatever we may think of its convenience, is certainly a marvel of ingenuity. It consists of four distinct determinations, only two of which, however, present any great novelty. We will give them in order:—

1. *Determination of Solid Matter.*—Dr. Frankland objects to the addition of carbonate of soda before evaporation, because it expels ammonia salts, and to some extent decomposes urea. He prefers to evaporate half a litre of the water by itself, and dry it at 212° Fahr. A little water of combination will remain in the residue, but this he considers as part of the solid matter.

2. *Organic Carbon and Nitrogen.*—The old process of burning is entirely discarded, and with it the attempt to ascertain the actual weight of the organic matter. The author contents himself with a most rigorous determination of carbon (apart from that present as carbonic acid) and of nitrogen (apart from that present as ammonia and as nitrous and nitric acids). The apparatus by which this is effected is very complex, but wonderfully elegant and delicate. A litre of the water is first boiled for two minutes with sulphurous acid, which, especially in the presence of phosphoric acid or perchloride of iron, expels all traces of carbonic, nitrous, and nitric acids. All the carbon that remains is now organic carbon, and all the nitrogen must be either organic nitrogen or nitrogen in the form of ammonia; and these are now to be determined by a process which is substantially identical with an ordinary organic analysis. The water is evaporated to dryness *in vacuo* in a glass basin—a peculiar form of apparatus being employed for the purpose—mixed with chromate of lead, and introduced into a short combustion tube sealed at one end. The other end is then connected with the valuable exhausting aspirator recently devised by Dr. Spreyel. A vacuum is now produced, and when this is quite perfect the combustion is made in the usual manner. The ignition with chromate of lead of course converts the carbon into carbonic acid, and liberates the nitrogen in the free state. More mercury is then poured into the apparatus, and the gases formed are swept out and collected over a mercurial trough, when they can be analysed by a slight modification of the ordinary method. From the nitrogen thus obtained it is of course necessary to deduct that which existed as ammonia, and which is determined in the original water by a separate experiment.

3. *Ammonia.*—This is determined by Nessler's test as usual, but some slight modifications have been introduced.

4. *Nitrous and Nitric Acids.*—Pugh's process having been recently shown to be unreliable, Dr. Frankland makes use of one suggested many years ago by Walter Crum, but long forgotten. It depends on the simultaneous action of sulphuric acid and mercury upon nitrates and nitrites, but we have no space to give the details.

Such, in very crude and imperfect outline, is the new system. Whether its results may be implicitly trusted remains of course to be ascertained, and whether such an analysis, even if perfect, would give us certain evidence of the goodness or badness of a water is even more doubtful. For we must remember that the ultimate analysis of organic compounds tells us nothing whatever of their properties, and that, although the presence of organic nitrogen may rightly be looked upon as suspicious, it would be unsafe to declare dogmatically that it was an invariable index of noxious properties in the water. It would, however, be unfair to conclude without expressing our great admiration for Dr Frankland's researches, and our sincere hope that they may prove useful.

PHYSICAL AND MENTAL TRAINING.—The effects of excessive physical and mental training was the subject of an able paper which we believe was read on Monday last by Dr. B. W. Richardson before the Health Department of the Social Science Association.

THE WEEK.

TOPICS OF THE DAY.

The members present at the meeting of the Metropolitan Branch of the British Medical Association, which took place on Tuesday, have appointed a committee to inquire into all the circumstances which led to Dr. Eastlake's resignation of the office of Physician to the British Lying-in Hospital, and into all the collateral matters, including, of course, the line of conduct pursued by Dr. Edmunds in the affair. On the whole, we think this the wisest course the Metropolitan Branch of the Association could have adopted. A hasty decision would have damaged their judicial character, and have satisfied no one. As it is, their sentence will come with infinitely more weight when founded upon the report of a committee of inquiry composed of seven gentlemen of high character and unbiassed judgment.

The gas and water companies are staunch enemies of the subways which have been constructed under some of the new streets. They will not place their pipes in these places so convenient for inspection and repair, but insist on using their old privilege of tearing up the pavement and rendering the streets impassable. The reason alleged by the gas companies is one of the most damaging to themselves possible. They are afraid of explosions from escapes of gas. But why not ventilate these subways, so as to prevent accumulation if any gas escapes, and meanwhile see that the pipes are sound? Who can tell the quantity that escapes at present under the pavement, making its way into houses, sometimes into water-pipes, and anyhow adding one most wasteful and unnecessary contamination to the already impure air of our towns?

The answer given by Lord R. Montagu to Mr. Waldegrave Leslie on the subject of the isolation of persons affected with small-pox and other contagious diseases, was in exact accordance with the opinion we expressed in our last number. However desirable isolation may be, it is impossible to enforce it by State measures without an interference with personal liberty which would not be brooked by a free people. Local authorities have already, under the Sanitary Act of 1866, the power to prevent the wilful exposure of persons suffering from these diseases. But this is as far as legislation can at present go. A Government that should propose to draw cordons round private houses, or send all children with scarlatina to lazarettos, would be simply demented. The fact is that people must be taught the necessity of isolation and other sanitary precautions, and they will then adopt them, as far as is possible, of their own free will. It is only the uneducated classes who have resisted or neglected vaccination, and it is amongst these classes that contagious diseases are allowed to spread unchecked from room to room and from house to house.

We regret exceedingly to see that the Poor-law Board have confirmed the course taken by the Guardians of the Strand Union, and have dismissed their Medical officer, Dr. Rogers. The Poor-law Board admit that Dr. Rogers has discharged all his professional duties in an unexceptionable manner, and they have dismissed him, as it appears, simply on the ground that he has not sufficiently considered the feelings of the Guardians in his advocacy of reforms in the Strand Union Workhouse. The Guardians say he has not shown them sufficient courtesy, and has exposed their shortcomings in the public prints, and that he has complained against them to the Poor-law Board without communicating with them first. In other words, he has been too ardent a Poor-law Medical reformer. To promote "the interests of peace and harmony in the Union," the Poor-law Board have dismissed Dr. Rogers, and the *British Medical Journal* has published the decision without a word of disapprobation. Surely Dr. Rogers may exclaim "*Et tu Brute!*"

The Coronership for West Middlesex is still a matter of contest. A strong effort is to be made to unseat Dr. Diplock. A meeting of freeholders was held at Uxbridge on Thursday, March 5, and a resolution pledging the meeting to support and assist Dr. Hardwicke in his legal efforts to be returned as Coroner was passed. It is said that some of the persons who supported Dr. Diplock voted twice, and there are legal doubts as to the right of graveholders to vote as freeholders.

Dr. J. H. Salisbury, who, it will be remembered, a year or two ago announced that he had discovered a connexion between certain palmelloid cryptogamic bodies, which he named "ague plants," and intermittent fever, now publishes, in the January number of the *American Journal of the Medical Sciences*, that he has observed two new algoid vegetations, one of which he believes to be the cause of syphilis, and the other of gonorrhœa. The *Crypta syphilitica* he describes as a minute transparent, highly refractive algoid filament of uniform structure, having the extremities obtusely rounded. They are developed from spores, and may be straight, coiled, or arranged in curves. Dr. Salisbury states that he has found these filaments in the bed of chancres and in the blood of persons affected with secondary syphilis. The *Crypta syphilitica* finds a fertile soil in the connective tissues. The *Crypta gonorrhœa*, also an algoid plant, having a filamentary form, according to Dr. Salisbury, is limited in its invasion to the epithelial tissue, whilst the *Crypta syphilitica* is mainly confined to the connective, cartilaginous, and osseous tissues. Several figures of these algoid vegetations are appended to Dr. Salisbury's paper.

What chance of redress has a Medical man who, by receiving a wrongly worded telegraphic message, is sent on a fool's errand to a distant part of the country? We fear, in the present state of the law, very little. Dr. Bree, of Colchester, has lately been obliged to endure this piece of gross injustice. He received a telegraphic message to visit a patient at Harwich, and on arriving found that no telegraphic despatch had been sent him from that town. On returning to Colchester he learned that, by a gross and unpardonable blunder on the part of the servants of the telegraph company, the word Harwich had been substituted for Halstead, the name of a town fourteen miles distant. He very naturally applied, through his solicitor, to the telegraph company for repayment of his expenses and the amount of his consultation fee. The answer returned was that the company were not liable, as they had no contract with Dr. Bree, and the message was not insured. After consulting cases, Dr. Bree was advised by his solicitor that this was good law. If so, we can only say that it is the very opposite of justice. Dr. Bree has very properly written a letter to the Secretary of State for the Home Department, in which he details his case. He urges that, according to present legal decisions, "a professional man may be sent by a blunder or a malicious error to any part of England or Wales, or the continents of Europe or America, without having any remedy or any power to recover his expenses from those who commit the blunder," and that this is neither just nor honest, and is directly opposed to the spirit and tenor of British law. The whole case furnishes another argument for putting the whole telegraphic communication of the country under Government.

The Islington Board of Guardians, at their meeting on March 6, were engaged in giving their Medical officers a lesson in the art of prescribing for the poor. The services of an assistant-dispenser, at £1 a week, were to be continued, and some of the members of the Board thought it a good opportunity to criticise the mode in which the Medical officers performed this particular part of their duties. One Mr. Fairbank said that the increase of dispensing work was occasioned by the elaborate prescriptions which the Doctors wrote—which were, in fact, as elaborate as would be given by West-end Physicians! The expensive medicine ordered was as good as gin and water to the patients, and they came again and again for it. "He thought simpler medicines ought to be

prescribed, and that Medical officers should adhere more closely to the old Pharmacopœia, and not order so many new-fangled drugs." The chairman's speech was inimitable in its way. He said that whilst allowing that it was desirable to give both poor and rich the best medicine, "even a West-end Physician would not think of giving more than three ingredients in one prescription." What must be the idea prevailing in the Islingtonian mind of a West-end Physician and his patients? Evidently, either that they belong to a different species, and require different treatment, from the dwellers in Canonbury and Barnsbury, or else that Physicians increase the number of drugs in a prescription according to the amount of the fee received or the point of the compass at which they live. He finished by saying that "he thought it would be advisable if their Medical officers, instead of prescribing new-fangled drugs, would adhere to the old remedies." It follows that the sick poor of Islington are not to have the advantage of any improvements in practical pharmacy, or of any discovery of new medicines. Luckily for the Board, the clerk brought the speeches to a close by saying that the Poor-law Board were about to issue a Pharmacopœia for their Medical officers.

The public papers have during the past week contained the account of two children who were starved to death in this same Islington district. The inquest on the bodies of the children was held by Dr. Lankester, and Dr. Ballard gave the Medical evidence, which clearly proved that death took place from starvation. The father, to whose good character many witnesses bore testimony, was a whitesmith, the subject of fatal disease, who had been out of work for a twelvemonth. He had been offered by the parish 9d. a day to break stones, but was unable to do it. The coroner and jury agreed that the case was one which might have been relieved by the parish. Surely a supply of food, supplemented by a little of the medicine that was "as good as gin and water for patients," would have done no harm to the starving parents and children.

The next meeting of the British Association will, it is announced, be held at Exeter, not at Plymouth.

The large majority which carried the Bill for abolishing executions in public is a proof of the alteration that has gradually taken place in public opinion on this subject. That it is not necessarily a step towards the abolition of capital punishment we believe, in spite of Mr. Cobden's dictum that the English will never sanction a system of strangling in private. But we are convinced that it will lead to a very considerable reduction in the number of executions. Partly this will take place because the criminal, if he "die game," will no longer be elevated into the hero of the hour, and thus stir up the low instinct of imitation which allies the brutal man to the brute. We firmly believe that if, in addition to the abolition of public executions, the police and criminal law reports were no longer permitted to appear in the cheap papers, a large amount of the great crimes which disgrace our country would not occur.

Our readers will regret to hear that the health of the Bishop of Labuan, who, it will be remembered, is a Fellow of the Royal College of Surgeons, will not permit him to resume the oversight of his diocese, where the thermometer is never under 70° F. His Lordship has accepted the living of Godmanchester, which is in the gift of the Dean and Chapter of Westminster.

At the coming election to the Professorship of Anatomy at the Royal Academy of Arts we hear that Mr. Partridge will be proposed for re-election, and will be supported by a powerful party amongst the senior Academicians. On the other hand, it is understood that his return will not take place unopposed.

The election of Members of Council at the College of Surgeons is already beginning to be discussed. Amongst those of possible candidates we have heard the names of Mr. Erasmus Wilson, Mr. T. Spencer Wells, and Mr. Luther Holden. Sir William Fergusson, who has not yet filled the office of President, will, no doubt, be re-elected.

Dr. Richardson delivered his sixth and last lecture on Tuesday. There was, as on previous occasions, a large attendance. The title of the lecture was "Nervous Function during Anæsthesia," but the lecture, in fact, was also an exposition of the functions of the nervous system according to the lecturer's views. He commenced by showing how to test for chloroform. There was no direct test, but by breaking up the chloroform by heat the products of the decomposition could be fixed and determined. A strong glass tube was heated to redness, and vapour of chloroform was driven through it with air. The opposite end of the tube was connected with a Liebig's potash bulb containing a solution of silver, and as the products of the decomposed chloroform passed through the solution, chloride of silver was thrown down; some of the carbon was also oxidised, and the presence of carbonic acid was proved. By the silver test, the five-hundredth of a grain of chloroform could be demonstrated. After the general experiment, different parts—viz., the blood, the liver, and the brain matter—of an animal killed by chloroform were tested, and the chloroform was detected freely in the blood and in the liver, but not in the brain. In no case was there any evidence of chemical combination of the chloroform with the structures; it was liberated from those which showed it by mere mechanical diffusion. Dr. Richardson afterwards explained his views, as based on his latest researches, respecting animal force and nervous action. He advanced the opinion that the nervous system is not the generator of force, but the recipient of it, and that it is capable of receiving force in all its forms, as electrical, thermal, or as motion. The nervous matter does not receive by centres only, but at every part where it meets living blood, which is a conductor of force to it. The main source of animal force is from the oxidation of carbon, and being produced in every part, it is liberated either as radiant force, as force communicated to the muscles, or as force to the nervous system, which becomes thus the centre and governor of force. By analogy, the nervous system may be compared to a soft magnet susceptible of change from the blood. At the close of the lecture, Dr. Richardson returned his thanks to the audience for the deep interest they had shown in his researches. The labour of preparation of each lecture was most severe, and he felt he could not meet his friends again until October, when, keeping still to therapeutical inquiry, he hoped to be ready with a course on the action of the various chemical bodies known as alcohols. A vote of thanks to the lecturer, moved by Mr. Hunt, and seconded by Dr. Cholmeley, brought this course of lectures, which have extended from October, to a close.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

THERE can be no doubt but that there are great and legitimate diversities within the special field for practice which the Surgical branch of Medicine affords, and it is but reasonable that the governing body of the College should include representatives of every class of practice which Surgeons can follow with repute. One kind is that of the pure Hospital Surgeon, renowned for skill in operations; another of the naval or military Surgeon; another of the distinguished professor of anatomy or physiology, or experimental physiology. Each of these classes demands a large share in the representation. Yet they ought not altogether to exclude what we may call the Surgical Physician—the man who cares not so much for operating, but is great at diagnosis and at constitutional treatment—nor yet the "Surgeon upon town," the man who has a large practice arising from the warfare of civilised life, such as clap, stricture, syphilis, whitlow, and the like. Still less ought a man to be excluded if, beginning with a sound anatomical and physiological training, he may be led to devote himself to some special class of diseases, such as those of the eye or the

skin. Surgery offers a very large number of subjects which may be usefully worked at, and it is not advantageous to the Profession that legitimate devotion to any one of them should shut out a man from its highest honours. In every liberal profession a man ought to be able to follow the bent of his own genius. The result is infinitely more useful than if a mere Chinese uniformity of pursuit were exacted. We well remember an eminent Surgeon and physiologist afraid to give his time to diseases of the eye, lest he should suffer as a Surgeon! It is quite time that juster ideas should prevail, and that such a man as Erasmus Wilson should not be excluded from the Council of the College because his successful pursuit of dermatology has, so to say, overtopped his early reputation as an anatomist and Surgeon.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

The Division Arthropoda—Class Crustacea.

THE division of the Arthropoda, the lecturer observed, was a very interesting and a very extensive one. It included no less than four-fifths of the known species of living animals. Yet their structure was by no means so diversified as might be expected from their numbers. The animals belonging to this group (excluding a few rare exceptions) were characterised by their all possessing *jointed limbs*, some of the anterior of which were so modified as to serve as *jaws*. Another striking character was that they never possessed *cilia* or any organ at any period of life. They all possess a nervous cord behind the gullet, consisting, at any rate *primarily*, of numerous ganglia in a longitudinal series. They have no pseudhæmal or water-vascular system. But the hæmal system, where it exists, is propulsive, as in higher animals. It was also to be observed that in these animals the neural side of the body begins to be developed first: he believed this to be universal. The Arthropoda comprised four very distinct classes—that is to say, very distinct as to the great majority of their members—the Crustacea, Arachnida, Myriapoda, and Insecta. These classes might be arranged in two primary subdivisions—1. Those having gills and requiring the influence of water to effect the respiratory function; all of which have *two pairs* of antennæ. This group includes the Crustacea. 2ndly. Those in which the organs of respiration are not *outward*, but *inward* processes of the integument, forming pouches or ramified tubes termed *tracheæ*, and the air is breathed directly. These possess only *one pair* of antennæ. The remaining three classes are included in this group.

Commencing with the Crustacea, this class was divisible into the following orders:—

Podophthalmia.	Stomapoda.
Branchiopoda.	Edriophthalmia.
Ostracoda.	Merostomata.
Pectostica.	Trilobita.
Copepoda.	

The first order, the Podophthalmia,(a) so named from having their eyes borne on long movable stalks, included animals of considerable importance—the common lobster was a good example of this order. The consideration of the anatomy of this animal was full of interest, since it was pregnant with the application of morphological rules. After giving a detailed description of the structure of the shell of the lobster, an admirable dissection of which was on the lecture-room table, Professor Huxley stated that one of the segments of the tail or abdomen of the lobster was in some respects analogous to a vertebra of one of the higher animals, inasmuch as it could be shown to be a typical segment of the whole skeleton. The same essential structural elements could be traced in all the segments, in those of the cephalo-thorax as well as in those of the tail, only modified to subserve different functions. There were altogether twenty such segments or somites in the body, each having a pair of articulated appendages. Of these appendages the most anterior pair were modified into movable stalked eyes. Next came two delicate antennæ or antennules; next two long feelers, the antennæ proper; then came two limbs having a crushing surface—these were the mandibles; to these succeeded two pairs of true jaws, or maxillæ. All these were attached to the sternal surface of the anterior portion of the cephalo-thorax. These form six pairs in all attached to the cephalic segments. To the thorax eight pairs of appendages are attached—first, two pairs of foot jaws, which assist in mastication; next the two great claws, or chelæ; and then four pairs of legs, or proper locomotive members. There is also a single pair of appendages to each of the six segments of the tail, making altogether twenty pairs of appendages. This law of the composition of the body of twenty segments, or somites, applies to the whole of the Podophthalmia, to all the Insecta, and to the higher forms of Arachnida. It is also probable that in all these the same number of segments go to form the head—viz., six.

The *alimentary* canal of the lobster commences by a wide gullet, which opens into a membranous stomach, from which proceeds a delicate intestine, which passes straight back the whole length of the body, and ends at the sternal aspect of the last somite.

The ducts of the hepatic masses open into the stomach near the pylorus. The most peculiar character of the alimentary canal of these crustacea is the possession of a curiously complex accessory masticating apparatus in the stomach. The stomach may be regarded as consisting of two portions—cardiac and pyloric; the cardiac portion contains a singularly constructed calcareous framework, moved by muscles, which may be likened to a *mill;* the pyloric portion presents a cushion-like surface covered with fine hair, and this forms a *strainer*, which allows nothing but fluids to pass. This organ is without parallel in the animal kingdom, except in other members of this class.

As to the organs of circulation. The heart may be seen by removing the centre of the carapace, beneath which it lies. It is a hexagonal muscular cavity, with six valvular openings—three on each side of the middle line. These valves are so arranged as to open the apertures during the diastole and close them during the systole of the muscular cavity. The heart lies in the so-called pericardium, which is really a large venous sinus. A number of arteries proceed from the heart—one forwards to the head, one backwards, and one downwards to a great canal under the nervous system. There are no true veins, but their place is supplied by irregular venous sinuses. One of the largest of these surrounds the nervous system; canals pass from this to the branchial plumes, and the blood, there aerated, passes through sinuses to the pericardium; therefore a large portion of the circulation is in cavities without distinct walls. The blood propelled by the heart is chiefly, though not entirely, *pure* blood. The blood is coagulable, and contains colourless corpuscles like our own. The branchial plumes are twenty in number, and consist essentially of a stem, with filaments arranged just like the hairs on a bottle-brush.

As to the nervous system of the lobster. It consisted *apparently* of thirteen pairs of ganglia—one in front of the gullet, often spoken of as the brain, giving off nerves to the organs of sense, and connected by two commissures, one passing on each side of the gullet, with the *post-œsophageal* ganglion, which is much larger than the others. Besides these, there are five pairs of ganglia in the thorax and six in the abdomen. The post-œsophageal ganglion appears to be formed of six pairs run into one; so that there are seventeen pairs of ganglia behind the cephalic pair, and since the cerebral mass is probably composed of three pairs, we thus have altogether twenty pairs of nervous ganglia, or a pair to each somite.

(a) The classes Podophthalmia and Stomapoda being each at the head of two groups, which might be arranged as above.

There is also a great intestinal nerve passing backwards on each side from the œsophageal commissures; this is analogous to the sympathetic system in the higher animals.

The organs of sense comprise tactile organs, represented by the great antennæ, organs of sight, hearing, and probably gustatory organs. Each eye is placed on the summit of a movable stalk. It consists of a concave reniform cornea, which is really a transparent portion of the chitinous integument specially modified to subserve the sense of vision. Its surface is divided into a number of areæ by lines crossing its surface; these are called "facets" (these are *square* in the lobster, *hexagonal* in insects). Each facet answers to a separate portion of the chitinous integument, and plays the part of a lens. Deeper within the eye-stalk is a large nervous expansion connected with the brain through the optic nerve. There are certain other structures between the chitonous integument and the nervous expansion. Immediately beneath the cornea is a small conical body, its base turned towards the cornea, its apex pointing inwards. It is a transparent refracting body. Between this transparent cone and the bulbous expansion of the optic nerve there is a rod-like body divided by longitudinal markings into four or six parts, and transversely striated. There is one of these "*rods*" and one of these "*cones*" to each facet. There are also between the inner surface of the cornea and the surface of the transparent cone four little nuclear bodies. Further, there is a kind of sheath surrounding these rods and cones, of a granular character, and in which pigment is deposited. It separates the transparent cones from one another. In certain insects muscular fibres have been discovered within these sheaths, thus forming a structure like the iris.

The relations of these structures to the optic nerve are not well defined, and several hypotheses have been advanced in answer to the question—"How do animals with such eyes see?" None of these are quite satisfactory. The *ear* of the lobster is a very definite and obvious body; it is placed in the basal joint of the antennules. In the upper wall of this joint there is a fine cleft covered with hairs; a short canal leads from this into a sac, a ridge or fold rises from one part of the sac, and this is covered with delicate hairs. The auditory nerve passes into this fold, and is connected with the bases of the hairs. The sac is filled with fluid, and a number of particles of sand or otolithes, which are really foreign bodies, are supported on the summits of the hairs by a gelatinous secretion. This is similar to the early condition of the ear of vertebrates. In one genus of the Crustacea the auditory sac is found in the terminal joint of the tail.

The sexes, in the higher Crustacea, are distinct. The male has no protrusible copulating organ, and there is this peculiarity about the spermatozoa—they are *still*, and not vibratile. They are rod-like in form, with three long filaments passing out from the head.

With regard to the other orders of Crustacea, the Branchiopoda are those nearest in relation to the Podophthalmia. They are, for the most part, fresh-water crustaceans. This order includes the water-flea (Daphnia), etc. They may have fewer or more than twenty somites: they generally have more, sometimes as many as fifty or sixty. In Daphnia, the two sides of the carapace are so modified as to form a sort of bivalve shell. Their locomotive appendages consist of the abdominal limbs, which are foliaceous or lamellar, and serve the purpose of branchiæ; hence the name of the order. Asexual reproduction is the rule with these animals, and when a male form exists, it is much smaller than the female, and simply serves the purpose of fecundation.

The next order—the Ostracoda—is so named from the carapace becoming converted into a perfect bivalve shell. They commonly live in fresh water. The common genus Cypris is an example. The great majority of this order are *devoid of a heart*. This is a remarkable exception to the general type of structure of the Crustacea. Asexual reproduction is also very common in this order. In the next order, the Pectostica, including the Cirripedia (Barnacles and Acorn Shells) and Rhizocephala (animals most of which are parasites on other Crustacea), there is also *no trace of a heart*.

The Stomapoda, of which the genus Squilla, or Locust Shrimp, may serve as an example, were commonly united with the Podophthalmia; but there are many important distinctions between them. These are to be found first in some remarkable modifications of the cephalic somites, in the attachment of the gills to the *abdominal* limbs, and in the structure of the heart, which, in this order, is a long organ contained in the thorax and abdomen, and having many chambers. The Edriopthalmia form a large division of this class, and are the most insect-like of the Crustacea. The Amphipods (Sand-hoppers, Spectre-Shrimps, etc) and the Isopods (Wood-lice, etc.) belong to this order. Most of them are marine, but some are fresh-water and some terrestrial animals. Their eyes are not stalked. Their heart is long and chambered. The anterior thoracic somites are always united with those of the head, and the corresponding limbs are converted into jaws. The respiratory organs are either filaments or plates attached to the thoracic legs, or a foliaceous expansion formed from the abdominal limbs. The terrestrial forms, like the wood-lice, breathe by keeping their abdominal gills moist in the same manner as the land crabs.

The order Merostomata includes that remarkable crustacean the Limulus or King Crab. In speaking of this order, the learned Professor called attention to some interesting extinct genera belonging to it. One of these had somewhat of a winged form, and had been named by the *Scotch* workmen who first discovered it a "*fossil seraphim!*"

VENEREAL DISEASE IN THE MERCHANT SERVICE.

Dr. Dickson, Medical Officer to the Custom-house, has addressed a letter on the above subject to the Board of Trade, and the letter has been printed for circulation. The subject is one demanding attention, for the condition of the water-side is something awful; the women there have almost ceased to be human, and have become in some respects worse than brute beasts. Now, although legislation will not improve them morally, it may, by a little wholesome restraint, do them much good physically, and that they want it no one will venture to deny. The Contagious Diseases Prevention Act has done much good in the army and navy, and an extension of its benefits to the civil population is much to be desired. No doubt there are certain difficulties in the way of ascertaining the true source of contagion, but this Dr. Dickson proposes to overcome by the institution of an examination of all prostitutes at regular periods. Examination, however, is useless unless ample Hospital accommodation be provided, as has already been shown at certain of our military stations; and as our Lock Hospital is already crowded, Dr. Dickson proposes that a couple of hulks be converted into floating Hospitals, which would afford all the room required. Of course, it is only in the first instance that such an amount of space would be necessary, as after a time the disease might be got more under hand. We should be glad to see any plan adopted; it must be better than no plan at all, and the sooner the present state of affairs is put an end to the better. Dr. Dickson says that about 3000 prostitutes are to be found below London-bridge, and on both sides of the river. We shudder to think of the mass of disease these figures represent and the number of beds at present disposable for their treatment. Nor is London the only spot which has to be considered. The number of women in Liverpool must be as great or greater than of those now living below London-bridge, and there is scarcely any means of treating them with proper seclusion during a sufficient period of time. The same remark applies to other important ports.

ABYSSINIA.

The health of the troops, European and native, still continues good. Only one of the British regiments has had a few sick. The cases have been chiefly relapses of intermittent fever and hepatic affections, from which the men had already suffered in India, and have probably been induced by the great and sudden alternations of temperature in their tents, from 95° by day to 36° by night. The heat and dust at Zoola have been somewhat reduced by cloudy weather and slight rains. We understand that it has been determined to send all weak and sickly men home to England before the setting in of the hot season, Aden and Suez being nearly as unsuitable, so far as climate is concerned, as Zoola itself; besides, the yet unfinished condition of the Hospital at Suez entirely forbids any invalids being sent there. The Cape is too distant and difficult of approach during the south-west monsoon. Small field Hospitals are being established at each post of advance. Beef is almost the only article which can be obtained in quantity from the natives. This, however, is not bad material to work on. Barley and grass in small quantities are also obtained. The Hospital ships are said to suit their purpose admirably, and to be invaluable as means of relief to the Hospitals on shore. We hear that more ships have been taken up at Calcutta, probably for the conveyance of stores. Whatever other classes of the community may have to say against the financial aspect of the expedition, the British shipowner must be pretty well content with the present state of affairs.

A PRECAUTION AGAINST CATTLE PLAGUE.

The Bill of Lord Robert Montagu, which the Government is trying to bring in, and which provides for the establishment of a market for the slaughter of foreign cattle, is one of those wise legislative measures which not unfrequently arise out of an able commission of inquiry. That the proposal to slaughter all foreign cattle on their arrival in the Thames is an excellent one no one can for a moment doubt, and that it is equally in accordance with the clearly expressed opinion of the Cattle Plague Commissioners is equally certain. But the question arises, Will the existence of such an abattoir tend to damage commercial interests, while operating in preventing the introduction of rinderpest? This is a grave point, and one on which, in our opinion, some further evidence is demanded. After all, the Cattle-plague Commissioners had to deal with but one branch of the problem. Their task was to discover the most effective method of stamping out the plague. No politico-economical aspect of the matter was present to them, and rightly so, and from this stand-point the Bill of Lord Robert Montagu is the judicious expression of a provident legislation. The arguments adduced by our contemporary, the *Pall-mall Gazette*, are also stringent, but it seems to us that they involve the fallacy of a false analogy. They urge that as in large continental towns the single abattoir system is found to work efficiently and satisfactorily, the same thing should hold good of London. But we would ask, is this reasonable? Is there any continental city which in this particular respect can be compared with London? We ourselves think not. The immense size of this metropolis, the vast space of ground it covers, the difficulty of conveyance, and the obstacles of excessive traffic, all tend to differentiate London from Paris or Berlin. It is true that in winter these objections would be to a certain extent immaterial, but it may be asked what about summer? If those who are so anxious to establish a foreign market would give a little attention to the evidence before the Food Committee of the Society of Arts, they would see how impracticable, and therefore how seriously subversive of mercantile interests, would be the establishment in London of any central system of *abattoirs*. It must not be imagined from what we have said that we desire in any way to oppose a liberal reform of our existing system, but we confess we should like to see a less one-sided method of dealing with the question than that advocated with so much red-hot zeal by our usually dispassionate contemporary.

PAY OF INSPECTORS-GENERAL OF HOSPITALS IN INDIA.

The appointment of principal Medical officer of H. M.'s British Forces in India has lately been alluded to in these columns as *the* prize of the Army Medical Department so far as pecuniary advantages are concerned. To our eyes here at home the salary is apparently large, being 2800 rupees, or £280, per month. The appointment is held for five years, so that, with such an income, it is fairly expected that the officer holding it can save money. But behind the apparent liberality of the pay there lies this disagreeable fact, that although most other Medical officers receive the pay of their relative military rank, this is not the case with those Inspectors-General of Hospitals who rank as major-generals. The pay of a major-general on the staff in India in command of a division of the army is 3333 rupees, or £333, per month, and all these officers receive, in addition, the half-pay of colonels in the army, and many of them are colonels of regiments also, so that a major-general receives from £500 to £1000 per annum over and above his pay for commanding a division in India. It is evidently unfair that Medical officers, performing the highly responsible position of advisers on all Medical and sanitary maters to the Government of India and the commander-in-chief with reference to the troops, and holding the relative rank of major-general, should receive a rate of pay which, although apparently large, is so much below that of military officers of corresponding rank, whose duties cannot in any way be pronounced more important. The inference is unavoidable, that at the time the new scale of pay and allowances was drawn up, it was with a view of attracting young men into the service by liberal pay at the commencement of their career, so as to content the *many*, leaving the *few* who come in for the higher ranks and appointments to find out, at the close of their career, that they have not obtained such great prizes after all. These remarks chiefly apply to the Inspector-General of Hospitals in Bengal; those of the other two Presidencies are in a still worse position, as they receive 2500 rupees per month—so that the Inspector-General in Bengal only receives 300 rupees per month more for his extra responsibility.

MR. POSTGATE'S BILL FOR AMENDING THE LAWS RELATING TO THE ADULTERATION OF FOOD AND DRINK, AND TO PREVENT THE ADULTERATION OF DRUGS.

In reference to this bill of Mr. Postgate's, we are in possession of a few particulars which are of Professional interest. Mr. Postgate has been engaged upwards of fourteen years in investigating the subject of adulteration of food and devising measures by which it may be prevented. It was through him that the member for Birmingham, the late Mr. William Scholefield, introduced a bill into Parliament, and obtained the "Act" relating to the adulteration of food and drink which is now in force. Mr. Scholefield paid Mr. Postgate a well-merited compliment in reference to his labours on this question at a public meeting which was held in the Town-hall of Birmingham to promote legislation on the subject. Mr. Postgate's new and amended bill which has been placed in the hands of Mr. Dixon, M.P. for Birmingham, for introduction into Parliament this session, has met with general favour. In addition to food and drink, it deals with the adulteration of drugs, and it is much more comprehensive than the original one. It may interest some of our readers to know that the attention of Mr. Postgate was first drawn to the subject of adulteration by a patient whom he attended when suffering from gastric symptoms, which were caused by the presence of alum in the bread which the patient ate, and which he found by chemical analysis. If there is

any honour in the inauguration of such a movement, which has for its object the purity of food, drink, and drugs, that honour most unquestionably belongs to a Birmingham man and a member of the Medical Profession.

"FARADAY AS A DISCOVERER."

UNDER the above title Professor Tyndall has published an admirable account of the life and doings of our great *savant*, originally constituting two of the Friday evening lectures at the Royal Institution. We intended at that time to speak of them, but, finding that they were to appear so soon in a separate form, we waited to express our admiration until the volume should be in the hands of the public. Faraday was one of our greatest men, and the story of his life has been here told with the loving simplicity of an ardent disciple and a constant friend. Of all men, Professor Tyndall was the best to write this life, for he that knows so well how to make the driest and most abstruse details of science not only clear and plain, but absolutely entertaining, could not fail to deal satisfactorily with the great discoveries as well as the calm-flowing life of the philosopher. The little traits which Tyndall loves to paint show the simplicity and greatness of Faraday, the kindness of his nature, and the vastness of his intellect. Details as to the book itself would be useless here, but to all who care for such subjects we would recommend it, and can assure them they will not be disappointed with either its matter or its manner.

ERRORS OF ALCOHOL THERMOMETERS.

THE thermometer is now so thoroughly recognised as one of our most valuable aids to diagnosis, that it becomes important to inquire whether in all cases it is an instrument of precision, and, if it is not absolutely accurate, in what the source of error resides. We desire, therefore, to call the attention of our readers to a very valuable paper which has just been written by Mr. W. Acland, in which it is shown that the alcohol thermometer as in ordinary use requires certain corrections. Doubtless many of our English clinical thermometers are mercurial, but in some of them coloured alcohol is employed, and this is the case with many of the most compact and convenient foreign instruments. Mr. Acland, in the paper we refer to, which he read before the Meteorological Society, has shown that alcohol thermometers are open to fallacy. "If," he says, "in constructing one of these instruments, we select a tube with uniform bore, we find, on giving it certain fixed points corresponding to an equal number of degrees between each point, that the spaces so obtained are each diminishing in length as we descend, and hence the ordinary method of dividing such a tube into equal spaces would lead to serious errors. This is owing to the fact that with certain fluids equal increments of temperature do not cause an equal increase of volume in the liquid." Of course the objection could be obviated by dividing the tube for every degree, but such process would be tedious, and therefore expensive. We are glad to learn, therefore, that Mr. Acland has arrived at a mathematical formula for the division of thermometers, and has devised an engine for the purposes of manufacture.

FROM ABROAD.—DEATHS FROM PHTHISIS IN PARIS—A VISIT TO MADAME LACHAPELLE.

A DEBATE, now prolonged over several weeks, is still going on at the Academy of Medicine, upon the pathology and communicability of tubercle; and it is to be hoped that dissertations of such ability and such wonderful prolixity will eventually be of service, when what practical utility they may possess has been extracted out of the mass of verbiage which at present envelopes it. In the meantime, M. Besnier has published a small statistical account of phthisis, as observed in the Paris Hospitals in 1867, showing its immense prevalence and great mortality, as well as the still more alarming fact that our improvements in early diagnosis and hygienic and therapeutic management do not seem to have made any impression whatever on the amount of it met with. Of 20 deaths registered in M. Moissenet's ward at the Hôtel-Dieu 15 arose from phthisis; and of 903 cases admitted into the Paris Hospitals during November and December, 1867, 477 died in the Hospital. In fact, the deaths from phthisis alone surpass in number the deaths from all other diseases united. During the six months of 1867, June to December, 1642 cases of phthisis were discharged from the Hospitals, and 1595 died therein. During 1866, of a total of 4740 cases treated, 2440 died; while during the same year, of 4970 cases of cholera, but 1679 died. Taking the mean mortality of Paris at 50,000, there are about 8000 deaths from phthisis, or about a sixth of the whole. M. Besnier agrees with M. Fonssagrives, that in the face of such a state of things, with the frequency and fatality of so terrible a disease apparently, in spite of all modern appliances, on the increase, it is desirable that a commission should be appointed, having for its object the critical examination of our real knowledge of the disease, and the exhibition of those points of practical value which still want further investigation. If this is all the Doctors can do for them, we fear the future victims of phthisis must still submit to their fate.

In a recent number of the *Wiener Wochenschrift* Dr. Schlesinger gives an amusing account of a visit he paid to the celebrated *accoucheuse* Madame Lachapelle while at Paris on the occasion of the Exposition. He says that the appellation "midwife," derived from a knowledge of the functions of the German "Hebamme," gives not the slightest idea of those of this famous and much-employed lady. She is at once "*sage-femme*," gynæcologist, syphilidologist, and operator for all the lesser evils appertaining to the sex. She is the trusted aid of young women and old husbands, of mothers and daughters who may have mishaps to conceal or repair. Our author, introduced into the midst of a crowd of well-dressed women in the waiting-room, soon made himself at home with them when they learned that he was a "*Frauenarzt*" from Vienna. He contrived, moreover, to make himself agreeable with some of his fair interlocutors by denouncing the cruel and impolitic character of the paragraph of the French code which declares "*toute recherche de la paternité est interdite*," and contrasting it with the provisions of his own happy land, in which the damsel with many lovers is at full liberty to choose a father from among them best able to bring up the forthcoming babe in plenty and comfort, at once sheltering a helpless infant and preventing its becoming a burden either to the mother or society!

Introduced at last into the *salon*, he found it not only furnished with distinguished taste, but also arranged with what he calls a gynæcological refinement and display. On tables and other receptacles lay in picturesque disorder whole batteries of every description of specula, syringes, forceps, hernial bandages, and enema apparatus; these being duly set off by bougies, catheters, caustic holders, dilators, and all the varieties of scalpels, scissors, and other gynæcological instruments. In the background of the apartment stood a large gorgeous sofa supported on gilded legs, and covered with damask and velvet draperies. He found Madame Lachapelle, a woman, although not young, still in the prime of life, of a distinguished and intelligent appearance, and dressed with that exquisite adaptation to her age which seems to be a faculty peculiar to Frenchwomen, and at all events seldom observed in Germany or England. Her first inquiries were as to the position of the German *accoucheuses*, and on learning from her visitor their low and mean position, and the narrow limits within which their functions are confined by law, she expressed herself, as might be expected, with suitable indignation.

Our Doctor was a little unfair, for he obtained his interview by pretexting a desire to consult Madame Lachapelle on a case of sterility which had resisted all Medical attempts at relief—this being a class of cases in which she has obtained great celebrity. On the various remedies which had been tried being detailed to her, and among these the rectifying the malposition of the uterus, she expressed the great distrust she felt in these assumed inflections and deflections, which too often only were excuses for prolonged treatment. She held it a pretty strong proof of the correctness of her scepticism that in twenty cases two equally celebrated accoucheurs scarcely agreed in a single one as to the exact diagnosis. We have not space to pursue the amusing conversation which followed, only observing that Madame Lachapelle protested against the habit of invariably attributing the failure of offspring to the woman, while it not unfrequently was really due to the dissipated habits of the man prior to marriage, or some individual peculiarities. She cited even historical illustrations, as that of Louis XVI., who, after an unfruitful cohabitation with a beautiful wife during seven years, yet eventually had five children by her. Then, again, who was at fault in the childless union of Josephine and Napoleon, the one having had two children by a former marriage, and the other one by his second empress?

PARLIAMENTARY. — CAPITAL PUNISHMENT WITHIN PRISONS BILL — CATTLE PLAGUE — THE SCOTTISH REFORM BILL — CONTAGIOUS DISEASES — THE PROPOSED CATHOLIC UNIVERSITY IN IRELAND.

In the House of Commons, on Thursday, March 5,

Mr. Hardy moved the second reading of the Capital Punishment within Prisons Bill, explaining that it contained improved regulations for the attendance of public functionaries at the executions, and arguing that the change, while it avoided the scandals of the present system, would have a more deterrent effect on the criminal classes.

Mr. Serjeant Gaselee moved the rejection of the Bill, and created some amusement by arguing that this was a poor man's question, and that the poor man had a right to be hung in public.

Sir G. Bowyer also objected to the Bill, and, to illustrate the deterrent effect of public hanging, gave some graphic reminiscences of executions he had attended.

Mr. Gilpin grounded his opposition to the Bill on his objections to capital punishment altogether; and Mr. Newdegate opposed it, believing that it would intensify the evils arising from the present uncertainty of punishments.

Mr. Hugessen and Mr. Hibbert warmly supported the Bill as being in entire accordance with the humane legislation of the present day, and putting an end to great public scandals; and the Lord Advocate having intimated his willingness (in answer to an appeal from Mr. M'Laren) that the Bill should be extended to Scotland, the second reading was carried by 181 to 25.

On Monday, March 9,

In reply to Colonel North, who asked a question in the absence of Mr. Read,

Lord R. Montagu said it was true that a disease broke out, at the end of last month, on a farm of Mr. R. Spurrell, at Stratton St. Michael, county of Norfolk. Altogether ten animals died, mostly within half an hour of being attacked, and three recovered. Within an hour of the intelligence being sent by two magistrates, Professor Simonds left for the place. He had reported that the disease was not contagious, but was very fatal; it was called apoplexy of the spleen. The causes of it seemed to be unknown.

After a lengthy debate the Scottish Reform Bill was read a second time, and ordered to be committed for that day fortnight.

On Tuesday, March 10,

Mr. Waldegrave-Leslie asked the Vice-President of the Council whether the Government contemplated bringing forward any measure to render more compulsory the isolation of persons infected with small-pox, scarlet fever, etc.

Lord R. Montagu replied that the Government, as at present advised, did not contemplate bringing forward any measure to render more compulsory the isolation of persons infected with small-pox, scarlet fever, etc. Article 38 of the Sanitary Act, 1866, provided against certain dangers to the public from persons with contagious diseases, and imposed a penalty on any person exposing himself when so affected. The policy of that Act was to place the power in the hands of the local authority. The hon. member appeared to desire to take the power out of the hands of the local authority and to give it to the central authority. A central government, however, could not work such a provision, for it meant, if it meant anything, that the Government should place every infected person in strict durance for at least two months, until all danger of infection had passed away. The Vaccination Act of last year was resisted because it was compulsory but that was nothing to such a proposal as this.

On Wednesday, March 11,

Mr. Fawcett gave notice that he should ask the Chief Secretary for Ireland on Thursday whether the Government would not advise her Majesty not to grant a charter to the proposed Catholic University for Ireland until Parliament had had an opportunity of granting or refusing the public money, which it is supposed the establishment of the University would require.

MECHANICAL PURGATIVES.

In the *Medical Times and Gazette* of August 24, 1867, we called the attention of our readers to the various classes of remedies for the relief of habitual constipation. These we made out to be fourfold—first, a better and more generous diet, which is the remedy for people who live too plainly; secondly, the saline substances, of which the common "Epsom salts" is an example, and which for the purpose in question ought to be combined with tonics; thirdly, vegetable aperients, and especially aloes, on which we have lately treated at length; fourthly, mechanical irritants, under which head we introduced to our readers' notice some "new wheaten biscuits," the result of very many experiments made by a *savant*, on himself and friends, to find a remedy agreeable in itself and capable of stimulating the bowels to do their daily duty without the aid of drugs. These biscuits have been prepared *pro bono publico* by Messrs. Huntley and Palmer, of Reading, and the demand for them is so great that they have excited curiosity, and correspondents have asked for further particulars. The secret of them seems to be their perfect friability, and the direction that they shall be taken *at* the chief meals instead of so much bread; they thus provoke a better mastication of all the food, and their stimulating portions get mixed with the whole mass, and do not form lumps by themselves.

The first point in treating habitual constipation is to insure thorough use of the teeth. Nothing clogs the colon so much as unmasticated food. Again, it seems essential for the success of mechanical aperients that the stimulating particles should be well mixed with the food, and act uniformly on the general surface of the bowels; otherwise they are apt to collect into masses, which either worry one part of the bowels into a fit of spasm and colic, or else become coated with mucus, and form an additional mass of scybala. Moreover, for the same reason, the bowels ought to be cleared before beginning their use, for it is not fair to expect them to take proper effect in bowels already loaded. Moreover, we must repeat the caution, that patients with hæmorrhoids sometimes find the rectum intensely irritated by any undigested particles, as bran, the seeds of summer fruits, etc, and hence are debarred from the use of such substances till the hæmorrhoids have been got rid of.

First amongst mechanical aperients stand the cereal grains, wheat, barley, oats, rye, and maize in a coarsely ground state, as *meal* (not *flour*), and without separation of the husk. There is no doubt, however, but that the wheat, in this as in every other form, is the nicest of them all; and with regard to the bran, we may affirm that it would be better for the mass of the population if it were not separated from their diet so absolutely as it usually is. We are not acquainted with any convenient form of barley meal for human food. Oatmeal is common enough, and to most Englishmen is dry, repulsive, and indigestible in the form of cakes. Indian corn meal used to be common enough in the London shops, though it has disappeared of late; but it can be easily made by grinding the corn in a coffee mill. If this meal be added in small quantity to the usual ingredients of a nursery pudding, it will be found to possess an agreeable flavour in itself, and to contribute irritating fragments of husk, of agreeable

consistency for biting, and capable of gently acting on the bowels. Turkey figs and other fruits containing small seeds require to be perfectly masticated, else they do but add to the constipation. There are several medicines, as guaiacum, powdered cubebs, and confection of pepper, which have a purgative virtue through their state of mechanical division; but one of the most promising of this class is the *reduced iron* taken with food. This is a very valuable medicine for chlorotic patients, both as tonic and aperient; and it is in this latter respect a contrast to the red oxide or old *ferri carbonas*, which seems to aggravate constipation.

REVIEWS.

Illustrations of some of the Principal Diseases of the Eye, with a brief Account of their Symptoms, Pathology, and Treatment. By Henry Power, M.B. Lond., F.R.C.S., Surgeon to the Royal Westminster Ophthalmic Hospital, etc. John Churchill and Sons. 1867.

Although the above title fully expresses the aim and objects of the work now before us, as stated by the author in the preface, it must not, however, be supposed that the letterpress is merely an appendage to, and explanatory of, the illustrations. It possesses a far greater value, and, occupying more than 600 pages of large octavo, forms one of the best works on ophthalmic Surgery—and they are many—which have issued from the press during the past few years. Mr. Power's long experience and success as a lecturer and writer on physiology may be taken as a guarantee that the present work will not prove deficient in that clearness of exposition and that nice discrimination which enable a teacher to impress upon his hearers the essential features of a subject without at the same time losing sight of those minor points which modify, and even at times obscure, its real characters. The great danger in dealing with a science which is for ever undergoing the most fundamental changes, is that, in attempting to avoid on the one hand the Scylla of dogmatism, we fall on the other into that Charybdis of uncertainty so peculiarly destructive of practical results; and it is because we believe that Mr. Power has steered successfully through these difficulties that we welcome a work which will form a reliable guide to the study of a class of diseases which are daily attracting a greater amount of attention in our schools, and will, as we hope, before long influence our examining boards.

Mr. Power has for some time past adopted the excellent though laborious plan of making drawings of all the interesting cases which have presented themselves at the Royal Westminster Ophthalmic Hospital, and has thus collected a large number of more or less perfect representations of diseases of the eye in various stages, from which he has selected a series of typical examples for reproduction in chromo-lithography. The difficulty, however, of producing delicate gradations of colour by this process is evidently great, and renders it no easy matter to present in so small a compass the various tints which modify the natural appearance of the part, and frequently constitute the most important element in forming the diagnosis. The colour most at fault is the red, which is too intense and bricky in tone, and wants that softness so characteristic of cruorine; the blues succeed much better, and can be varied to a greater extent.

The general plan of the work is as follows:—First come the diseases of the external appendages of the eye, considered in their anatomical and clinical relations; then follow the diseases of the structures forming the coats and contents of the eyeball, the account of the morbid changes being preceded by an excellent epitome of the structural peculiarties of the part; injuries to the eyeball succeed, and the volume concludes with a short account of the defects in the accommodation and refraction of the optic apparatus, considered chiefly as subjective phenomena. It is difficult in a work like the present to criticise any one part, as the value of the volume rests upon its arrangement and accuracy as a whole; we have, however, carefully examined some of the more unsettled questions, and find that the views expressed by the author are in accordance with the most recent investigations of the German and English ophthalmologists. We have been somewhat surprised, however, that optic neuritis, which has recently attracted so much attention, has not been treated of as a distinct affection, and is represented as a form of diffuse retinitis in which the optic disc is surrounded by a greyish halo.

The subject of strabismus is well considered, and we would especially direct the attention of students to this chapter, where they will find an admirable *résumé* of the investigations of Donders into the causes which tend to promote this deformity, and we hope men will be induced to give up the barbarous custom of operating upon every case of squint which presents itself, without considering the conditions under which it has become developed.

The volume is a credit to the publishers, and will maintain Mr. Power's reputation as a scientific and practical Surgeon.

GENERAL CORRESPONDENCE.

ARSENICAL RASHES.

Letter from Dr. Macnab.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your notes of the treatment of skin diseases at Guy's Hospital in the last number of your journal, I am surprised to find considerable difficulty evinced in accounting for the appearance of a peculiar exanthematous eruption in a patient with obstinate psoriasis, treated by large doses of arsenic, and various speculations made as to its cause. I believe rashes, although certainly not to the same extent as caused by the use of copaiba and cubebs, to be of no very unfrequent occurence where arsenic has been taken for some time; indeed, their appearance is mentioned by many toxicological writers as an occasional symptom of chronic arsenical poisoning. I myself have seen several cases where the appearance of rashes could only be accounted for by the use of the metal. In one instance particularly which lately occurred in my practice, I observed an eruption almost identical in appearance and accompanying symptoms with that described in Dr. Fagge's case.

The patient was a strumous woman, 28 years of age, with lupus of the face, for which I prescribed miij. doses of the liq. arsenicalis three times daily. The medicine had been taken regularly for three weeks without producing any constitutional disturbance, when suddenly, after feeling ill for a few hours, a copious rash made its appearance on the face, hands, and chest, resembling that of measles more than any other, the maculæ being slightly elevated, with intervening spaces of skin little affected, and showing papules in some places, vesicles in others. It was accompanied by general catarrhal symptoms; swelling of face, lips, and eyelids; burning heat of skin, yellow furred tongue, gastro-intestinal irritation, and intense tenderness of feet, so much so that standing gave great pain. These symptoms were followed in a few days by complete aphonia. Desquamation commenced about the tenth day of this eruption, but the redness of skin did not entirely disappear for some weeks.

In this case I had no doubt that the exanthem was caused by the arsenic, no external application or treatment of any other kind having been used, and there existing in her extreme intolerance of the metal in all its forms. On several occasions when it has been tried since, I have been obliged to discontinue it in a few days, its use causing nausea and gastric irritation generally.

I am, &c.

Robert Macnab, M.D., F.R.C.S. Edin.,
March 5. Surgeon to the Suffolk General Hospital.

CIRCUMSCRIBED ABSCESS IN BONE.

Letter from Mr. A. Bruce.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your remarks on Mr. Carr Jackson's paper on Circumscribed Abscess in Bone, you speak of this disease as "a somewhat rare malady." Doubtless it is so, but I believe it is not generally known that it occurs far more commonly in this country than on the Continent, where some writers have even gone so far as to describe it as a disease peculiar to the English. When studying in the University Clinique at Berlin in 1865, I was informed by Professor Langenbeck that he had only met with three or four cases during the whole of his practice in Germany, but that he had seen as many in the London Hospitals in the course of one short visit to this country. It would be interesting to learn whether its occurrence is determined by climatic or constitutional influences. Struma, tubercle, and syphilis are as common in Germany as amongst ourselves, and can hardly be looked upon as affording any explanation of the difference observed in the two nations,

which must be sought, I apprehend, in the combined atmospheric conditions of cold and damp, in which particulars we need fear no comparison with our neighbours. I may mention in conclusion that a rare specimen of abscess in both epiphyses of a tibia affected with chronic osteitis is to be found in the museum of University College; it was removed by amputation at the knee-joint from a middle-aged woman under Mr. Erichsen's care in the Hospital. I am, &c.

March, 1868. ALEXANDER BRUCE.

THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—There is one portion of the last letter of your correspondent of thirty years' service which, I am sure, the writer will, on reflection, deeply regret. I mean the allusion to the present Director-General. It is well known that Dr. Logan has done much and most varied foreign service; that he has done duty in every rank and grade of the department at home and abroad, in all climates, including the East and West Indies; and that he served through several campaigns and severe epidemics of cholera and yellow fever.

Now, Sir, the extensive knowledge derived from these various tours and phases of duty, combined with his unrivalled tact and extraordinary kindness of disposition, should be a sufficient guarantee that the feelings evinced by your correspondent are not shared by the bulk of the Medical officers of the army, to all of whom, almost without an exception, Dr. Logan's appointment as Director-General was most satisfactory. I am, &c. ARMY LIST.

Netley, March 9.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

MONDAY, MARCH 2, 1868.

ANNUAL MEETING—DEBATE.

(Continued from page 274.)

IN reference to the paragraph relating to the proposed admission to the reading room and scientific meetings of Medical officers of the army and navy resident on duty in London, the President read a letter from Mr. Wyatt, expressing his best thanks, and stating that there were about six Medical officers in each of the public services who would be able to avail themselves of the privilege.

Mr. CHRISTOPHER HEATH said, with regard to that part of the report which spoke of the volume of *Transactions* just issued, no one could doubt the importance of the volume, but he wished to say a few words with regard to the selection of the papers which formed that volume. During the last session there were thirty-nine papers read before the Society, and of that number twenty-three appeared in the *Transactions*. He would state at once that he was one of the unfortunates whose papers were not inserted. It was in the memory of some of the Fellows that in December, 1866, he read a paper before the Society on a case in which he applied a ligature to the carotid and subclavian arteries. Notice was taken of it in all the Medical journals, the reporters of those journals having been present, and having written what they chose. The paper, instead of being published in the *Transactions*, was returned to him in due course; and on inquiry as to the cause of its rejection, he was informed that although it had been recommended for publication by one of the referees, the other referee said the facts were already in print. He was referred to a gentleman who was vice-president, and who was then in the chair, and some correspondence ensued on the subject. He would direct the attention of the Society to the fact that the rule did not hold good, and it never had held good. Take the case of Mr. Liston. Mr. Liston read a paper on Diseases of the Upper Jaw, which consisted of remarks and condensed reports of several cases of operations upon the jaws, every one of which had been published before, yet that was considered to be no objection to printing the paper in the *Transactions*. But the rule did not hold good even now, because in the present volume there was a paper by Mr. Moore on Cancerous Disease in the Knee, which was an amplification of a lecture that appeared last year. Anybody could see that it was the same thing, only, of course, there were additional facts brought to bear on the case. Then there was a paper on Cases in the Lock Hospital, twenty-one of which had already formed the basis of a paper by Mr. Lane read before the Medical Society of London in December, 1865, and published in all the journals. He (Mr. Heath) did not in the least complain of these papers appearing—he thought it would be hard if they did not appear—but he wished to ask whether the members of the Council acted quite fairly in putting in papers of their own which had appeared elsewhere, and excluding others which were unfortunately in the same condition. But he would go further than this. With regard to Hospital cases, a great alteration in the system of conducting them had taken place. The Hospitals were now thrown open, and every one was glad of it. This was an attempt to close the Hospitals again, because when he said to Mr. Moore, "Well, what is to prevent anybody going to your theatre, and reporting your cases?" he said, "He would take means to prevent their being reported." If that system were to be adopted, we should be going back to the old state of things. Each Surgeon must either treat his cases, and shut them up from the public gaze, or he must allow them to be taken away from him in this way, and be thereby precluded from having them published in the *Transactions* of the Society. He did not propose to move any amendment to the report: he merely wished to take this opportunity of making his statement, with the view of calling the attention of the Society to the matter.

Mr. MOORE said he did not propose to follow Mr. Heath through the account he had given of his conversation with himself relating to the publication of cases; but he thought it necessary to say that the form of expression which had dropped from Mr. Heath, to the effect that the members of the Council published their own papers in preference to those of other Fellows, was hardly warranted. If Mr. Heath could have brought forward any resolution which would have guided the Council in future, the matter might have been brought to a practical issue, which would have been better for all parties.

The PRESIDENT was quite sure that the meeting would feel that Mr. Heath had been actuated with but one desire on this occasion—viz., to raise the character of the Society to the highest degree. Whether the Council would agree with him in his view of the matter or not, he could not pretend to say; but he could say most unreservedly that the Council would take to heart and consider seriously and candidly all the observations made, and if they could improve in any way the mode in which they came to their decision as to the publication of those papers which were read, they would only be too glad to do it. For his own part, as President of the Society, he could say most honestly that there was a difficulty in the present day which did not exist in former times with regard to the publication of cases independent of the author's communication of them to the periodicals. He might also say that he thought, what they ought all to desire more especially was, that the *Transactions* should contain the most perfect record of the advance of Medicine and Surgery in this kingdom. If Mr. Heath's observations on this occasion should have any effect in forwarding that object, he (the President), for his own part and for the Council generally, could only say he should rejoice at it.

Mr. CHARLES HAWKINS expressed his opinion that the objections of Mr. Heath to the course pursued by the Council had been in no way answered. Mr. Heath's paper appeared to have been excluded upon a principle which had not been followed out with regard to other papers. The volume of *Transactions* had now got to that magnitude that it was something approaching to the size of the London Post-office Directory; and it came to be a serious question whether anything which was not really read before the Society should be published. He did not mean to say that any paper published in the last volume was not worthy of publication, but the question was whether the *Transactions* of the Society should be used for publishing papers of forty, fifty, and sixty pages in extent, at a large expenditure on the part of the Society. He did not think it was ever intended that that should be done; and no such papers were ever printed in the early volumes. Now what he alluded to were not, strictly speaking, transactions of the Society. The papers might be very valuable to the public and the Profession; but he thought they ought not to be published in the Society's volume. With regard to the size of that volume, he would take the liberty of suggesting that when the papers did get to a sufficient

extent it would be better to divide them into two volumes in the year, which would be more portable than one bulky one. There was a matter not alluded to in the report upon which he should like to ask a question. He believed the Society had added to their list of tenants another Society, which he regarded as very important, and very much called for, though he did not belong to it. He should like to know what arrangement had been made. He was sure this Society would be ready at all times to give to any young Society a starting-point, and they would not for a moment consider the question in a financial point of view; but it had been the custom, when societies had been taken in this way, for the Council to report the fact, and acquaint the Fellows with the proceedings.

Sir HENRY THOMPSON said it happened to be his lot to present a paper before this Society on a case of calculus, in which the nucleus was a portion of bone exfoliated from the pelvis, described very briefly. He claimed for the case that it was unique, and he had in very few words explained what it was. It was refused admission to the *Transactions*, and he heard that the reason given was that it was too short. (Laughter.) Now, if the object of the Society was the production of such a volume as that described by Mr. Hawkins, which should emulate in any way the London Post-office Directory, he could understand that course. The volume contained 640 pages, and his short and unpretending paper certainly would not have taken three. If he had had the time which he had some years ago, he could easily have extended the matter of his paper, though probably he could not have put one more important fact in it. With the fruitfulness of brain in the present day, it was to many a matter of the greatest delight to get hold of a paper in which the facts came within very short compass. He had just such another case—quite of a different nature of course, but as unique—in his selection at the present moment, but he had no time to make a long paper; and if it was necessary that a small paper should be swelled out into a large volume, he certainly must decline to attempt it.

The PRESIDENT, in reply to Mr. Hawkins, stated that the permission to the Clinical Society to hold its meetings at this institution was only for the present, and the subject would be considered by the Council immediately after the next meeting, with the view of determining how long the permission should continue. With regard to the observations made by Sir Henry Thompson, they were to some extent met in the address which he proposed to deliver in the course of the evening.

Mr. TIMOTHY HOLMES thought it would be a useful guide to the Council and referees if some rule of this kind should be introduced, that no matter should be published in the Society's *Transactions* which really had not been presented before the Society. He had many times seen a large mass of paper lying on the Secretary's desk, of which at least three-fourths were not read to the Society, consisting of notes of cases, tables, and matters of that kind, which really the Society could not listen to. The *Transactions* were now swollen by a vast number of notes which were never read, and which might very safely be withdrawn from the yearly volume if only the authors were required to substitute a summary or general statement in place of them.

The PRESIDENT said he was sure the observations of Mr. Holmes would receive the attention of the Council.

Dr. A. P. STEWART said it was very important to know the name of the person alluded to by Sir H. Thompson. The rejection of a paper because it was too short had never come before the Council.

Sir HENRY THOMPSON said he should state no name, but simply the fact.

Dr. A. P. STEWART thought the name ought to be mentioned. (Question.)

The PRESIDENT said he had never heard of such a reason being given as that mentioned by Sir Henry Thompson.

THE PATHOLOGICAL SOCIETY.

TUESDAY, FEBRUARY 18, 1868.

J. SIMON, Esq., President, in the Chair.

THE report of the Cancer Committee upon Mr. Bryant's tumour of the scalp was first read. The report verified Dr. Moxon's description of the structure of the tumour, and agreed to the use of the word "periangioma" as a name for the growth, on account of the characteristic cylinders of lymph-like formation surrounding large vascular loops embedded in soft tissue—a kind of structure which is unlike that of any other described tumour.

A report from the same Committee on Dr. M. Mackenzie's case of ulcerated larynx, epiglottis, and tongue was read, stating that the structure was epithelial.

A third, from Drs. Peacock and Wilson Fox, on Dr. Church's case of fibrinous clot in the heart, was read. The report stated that the clot was probably ante-mortem.

Dr. JOHN W. OGLE exhibited and described

I. EXTENSIVE SOFTENING OF THE LEFT HEMISPHERE OF THE BRAIN—PLUGGING OF THE UPPER PART OF THE INTERNAL CAROTID ON THE SAME SIDE—PECULIAR TUNNELLED CONDITION OF THE PLUG—REMARKABLE ODOUR FROM THE BODY.

The patient was a plumber, with a blue gum line, aged 52, who was admitted into St. George's Hospital, under Dr. Ogle's care, last October 2, in a heavy, stupid, and half-imbecile state, with remarkable "slowness of speech" when roused. He had had no fit and no rheumatic attack. For a week he had had pain in the right arm, and inability to move it; and this was the case on admission. There was a most offensive foxy or mouse-like smell from the body, evidently from the perspiration, which was considerable, and this continued in spite of baths and washing, etc.(a) Two days after admission, he had a "fit," and became insensible, and completely hemiplegic on the *right side*. The urine was albuminous, but contained no sugar. He died on the 11th. After death, nearly the whole of the centre of the left cerebral hemisphere was broken down and softened, and the left internal carotid, just before its bifurcation, was blocked up by a firm fibrinous plug, very adherent to the walls of the vessel. The plug did not completely occlude the artery, inasmuch as it was perforated or tunnelled by an opening which easily allowed the passage of a bristle. The auricular surface of the mitral valve of the heart was beset by old firm adherent fibrinous deposits, as were the chordæ tendineæ of the left ventricle to some extent. The kidneys were in an early stage of granular degeneration.

II. CARCINOMATOUS (ENCEPHALOID) DEPOSITS OCCUPYING THE LUNGS, THE HEART, AND THE MEDIASTINAL GLANDS.

Dr. Ogle presented this specimen by the desire of Sir Thomas Watson, who had seen the patient during life. The morbid deposit existed in the form of small rounded masses in the lungs, and, on the surface of the heart, presented the appearance as if melted wax had been poured on the organ. The chief interest lay in the symptoms, physical and general, which were rather of pulmonary phthisis than anything else. Eventually anasarca of the left arm and hand came on before death.

III.—SOMEWHAT SUDDEN DEATH IN A PATIENT SUFFERING FROM ASCITES—RUPTURE OF ONE OF THE AORTIC VALVE-FLAPS—FIBRINOUS DEPOSITS ON THE VALVES.

The patient was a man of middle age, who had lived an intemperate life, and came into the Hospital with ascites. On the day after admission he had a shivering attack, attended by great heat of surface and increased action of the heart. No cardiac bruit existed, and it was thought that some fever was commencing. On the next day he was much in the same state, but had sundry lung râles. No cardiac bruit on either of these days could be found on examination. On the third day after admission a bruit was detected at the heart. He died on this day. After death the whole arterial system and inner surface of heart were much blood-stained, and under the lining of the ventricles ecchymosis of blood was found. The spleen was very soft, and the lungs condensed and easily lacerable at the posterior and lower parts. Large and firm fibrinous masses were firmly adherent to the aortic valve and flaps, and one of them presented a thin pouch formed by its dilatation; this had given way during life. The liver was very considerably enlarged and cirrhosed.

Dr. CHURCH showed a specimen of

CANCER OF THE BRAIN

removed from a woman who had been found insensible in the

(a) Dr. Ogle remarked that he had never in any case of diseased brain observed this odour before, but commented upon the observations of others who had noticed it in cases of insanity. He had corresponded with several gentlemen specially practising in connexion with lunacy, and found that almost all acknowledged the existence of this or some similar smell, especially in cases of acute mania. Some supposed it had reference to corresponding derangement of the sexual functions; and Dr. Ogle mentioned a case which seemed to illustrate this.

streets and brought into St. Bartholomew's Hospital. She had nine fits in three hours after coming in, and died in seventeen hours. Her urine was albuminous. In the left optic thalamus was found a rounded mass, bluish and vascular, projecting into the cavity of the third ventricle. Another and a smaller one was found in the right crus; around this there was some hæmorrhage, but little round the other. The brain was slightly vascular. Referred to Committee.

Dr. MURCHISON showed a specimen of

CANCER OF THE STOMACH

which had been characterised during the life of the patient by the absence of all the ordinary symptoms. There was only emaciation and paroxysmal pain. There had been no vomiting, and neither constipation nor diarrhœa. The tumour was obscure. A week before death the patient passed a large quantity of blood both ways. After death the stomach was found to be extensively affected, but neither orifice was implicated. The hæmorrhage had arisen from sloughing. Some years ago he had a case in which sloughing gave rise to peritonitis and death.

The same gentleman next proceeded to bring before the Society a most interesting specimen of

ACUTE ATROPHY OF THE LIVER.

During life the patient had a brown tongue, and was delirious, as in fever, but was not much jaundiced, and had been in good health up to within three or four weeks of the date of admission. When in Hospital there were observed vomiting and purging, and diminished area of hepatic dulness. There was no leucin or tyrosin in the urine. The liver was greatly reduced in size, weighing only 27 or 28 oz. Its right lobe was softened, but the left was healthy; its lobules had nearly disappeared. In substance it was soft, but the hepatic cells were not disintegrated, as they are in ordinary fatty disease.

Dr. LEARED had heard of a case somewhat similar to this.

In reply to a question by Dr. Weber as to the etiology of the atrophy, Dr. MURCHISON stated that the patient had no syphilitic history, that the age was 22, and that the health had been good up to the date of seizure.

Mr. MOORE here remarked, with regard to Dr. Ogle's case of mediastinal tumour, that such were often connected with the thymus, and suggested the propriety of looking for the elements of that gland in the structure.

Mr. BRUCE exhibited, at the request of Mr. Hillman, a specimen of

EPITHELIOMA OF THE PENIS,

recently removed from a patient, aged 58, whose wife had suffered for many years from cancer of the uterus. She died in 1863, and in the course of the following year he noticed a small warty growth upon the glans, which at first caused no inconvenience, but subsequently ulcerated and produced much pain. Mr. Bruce remarked that the relation between the clinical history and anatomical structure of the various forms of epithelioma required further elucidation, and hoped that the specimen might be submitted to the Committee.

Mr. BRUCE then exhibited a specimen of

FRACTURE OF THE BASE OF THE SKULL,

which illustrated some of the conditions which determine the occurrence of certain symptoms. The patient had been struck by an engine on the back of his head, and was thrown forwards, striking his forehead against the rail. He was admitted under Mr. Marshall at University College Hospital with dilated pupils, stertorous breathing, and bleeding from both nostrils and the right ear; profound coma supervened, and a watery fluid escaped from the right ear. He died in eight hours. On examination, the skull was found much fractured both in the anterior and posterior fossæ, whilst a longitudinal fissure passed through each side of the middle fossa, traversing the petrous bones; on the left side passing internal to the membrana tympani, which had escaped uninjured, whilst on the right side the line of fracture had passed through the attachment of the membrane, thus rupturing it, and giving rise to the escape of blood and watery fluid.

Mr. BRUCE next exhibited a specimen of

CHRONIC RHEUMATIC ARTHRITIS OF THE KNEE-JOINT,

for which he was indebted to Mr. Marshall. The patient, aged 44, a seaman, had received an injury to his knee nineteen years ago, from which he recovered, but subsequently at intervals of several years was affected with pain and swelling of the joint. About four years ago, Mr. Marshall operated for the removal of diseased bone from the lower end of the femur, and the patient remained well for two years, when an abscess formed below the joint. On readmission the joint was found to be much enlarged, the femur and patella appearing to be firmly anchylosed to the tibia, whilst an ununited fracture of the lower end of the femur appeared to exist. The patient subsequently died of pyæmia. On examination of the affected joint it was found that the upper end of the tibia was much enlarged, and that great deposit of new bone had taken place in the capsule, involving the patella, which was thus firmly united to the tibia. In the cuplike cavity thus formed, the lower end of the femur, which was almost entirely destroyed by caries, played freely, the soft structures being completely disorganised. The bones thus appeared to present two conditions —viz., destructive caries of the femur, and a condition resembling chronic rheumatic arthritis of the tibia.

Dr. MORELL MACKENZIE next showed a specimen of

ULCERATION OF THE LARYNX,

occurring in a man aged 61. For some time he had suffered from difficulty of swallowing, and the right epiglottic fold was gone. There were swellings in the neck, probably enlarged glands, which, however, came on before the difficulty of swallowing. He died suddenly.

Dr. MACKENZIE also exhibited an

ULCERATED ŒSOPHAGUS COMMUNICATING WITH THE TRACHEA.

The man had great difficulty in swallowing when seen, but a bougie passed with little difficulty. Under milk diet and ice he improved much, but after discharge was taken suddenly worse, and died with hepatised lungs, probably from food passing through the opening. Specimen referred to Committee.

Mr. COOPER FORSTER showed a

MONSTER FATTY TUMOUR,

removed from the abdomen of a woman whom he had been asked to tap. Both Dr Wilks and Dr. Hicks believed it to be a collection of fluid, the percussion wave being perfect. When the canula was withdrawn a little fluid followed in various spots, but never much. The woman soon after died from apnœa, having been ill for four years. The ascending colon lay in front of the tumour, and there was a little fluid between it and the walls of the belly. It was adherent to the diaphragm, and when removed weighed fifty-five pounds. It had no distinct pedicle, so it was a question how it originated.

Mr. WOOD asked where the kidney was; might not the mass originate from it?

Dr. C. J. B. WILLIAMS said that long ago he had described a sign whereby a solid tumour might be diagnosed behind fluid; this was a sharp pressure of the hand.

Mr. C. FORSTER said he had not forgotten this, but the wall of the abdomen was so very tense that it could hardly be moved.

Mr. T. SMITH suggested that the fat might have been fluid, or nearly so, during life.

Mr. BARWELL had seen in the country an enormous fatty mass removed from the abdomen of an ox, and connected with the omentum. Might not this have originated in the same way?

Dr. LEARED showed, for a gentleman in the country,

A DILATED GALL-BLADDER

removed from the body of a woman who, a year before her death, struck her side against a post. Ever after she suffered from vomiting, often yeasty, but there was no jaundice, and but little pain. The liver was cancerous and nodulated, whilst the gall-bladder contained no bile—only a straw-coloured fluid. The cancer involved the duodenum.

Dr. GREENHOW brought forward a boy having

COMPLETE DISPLACEMENT OF THE HEART,

it beating under the right nipple. The left lung was very large, the right solid and contracted, and there was no history of acute disease.

In reply to a question from Mr. COOPER FORSTER, Dr. GREENHOW stated that there was no transposition of viscera.

Dr. C. J. B. WILLIAMS said that the condition no doubt arose from disease; he had seen eight or ten cases. Extreme effusion on the right side sends the heart to the left; as it is slowly absorbed, contractile adhesion of the lung drags the heart to the right; and the bronchial tubes often became dilated so as to fill the vacuity.

Dr. GREENHOW expressed an opinion that there certainly was a cavity of some kind in this case.

BRITISH NURSING ASSOCIATION.—An effort is being made to establish an institution under this title for the proper education and training of nurses. Colonel Pitcairn, 4, Trafalgar-square, is the acting Secretary.

THE CLINICAL SOCIETY.

FRIDAY, FEBRUARY 28.

Sir THOMAS WATSON, Bart., President, in the Chair.

THE following gentlemen were elected members of the Society:—Dr. J. F. Anderson, Dr. G. G. Bantock, Dr. W. Carr, Mr. F. W. Cooper, Dr. Julian Evans, Dr. W. H. Grace, Dr. Archibald Hewan, Dr. E. H. May, Mr. H. Sewill, Dr. Charles Squarry, Dr. T. H. Tanner, and Dr. Stephen Ward.

Mr. THOMAS SMITH showed a patient, aged 17, whose knee-joint had been excised eight years ago. The limb was very useful, and the result of the case supported a statement made by him some years previous, that, provided the epiphyseal cartilages were uninjured by the operation, the growth of the limb would in all probability be unchecked. In reply to a question from Mr. Bryant, Mr. Smith stated a small portion only of the cartilage of the epiphysis of the femur had been removed during the operation.

ABSTRACT OF DR. ANDREW CLARK'S CASE OF FIBROID PHTHISIS.

General Summary.—A woman, aged 28, four years married, childless, sprung from healthy parents, said to have been temperate, and to have enjoyed good health till three years before, when she had ascites, from which she recovered in eleven months, began, in July, 1867, to suffer from vomiting, prostration, cough, occasional hæmoptysis, muco-purulent expectoration containing lung tissue, œdema of extremities, and intermitting diarrhœa, and, becoming rapidly worse, died comatose on December 5 of same year. *Respiratory Organs:* On account of weakness of patient, front and lateral parts of chest alone examined. Respirations 20 per minute, and chiefly abdominal. *Examination of Left Side:* Front depressed, and movement slight. Supra-clavicular region percussion tympanitic; breath sounds blowing; resonance bronchophonic, with echo. From second to fifth rib, and from near sternum to posterior part of axillary region, hard resistent dulness, with considerable retraction of chest-wall. In front of this region, inspiration bronchial, and accompanied by moist sub-crepitant râles; expiration dry, and not sensibly prolonged. In axillary region breath sounds tubular, and partly masked by coarse crepitation; vocal resonance bronchophonic. At two spots breathing cavernous and voice pectoriloquous; here metallic click is heard coincident with heart's contractions. Along posterior axillary line an occasional creaking-leather sound is heard, and vocal fremitus and vocal resonance are notably diminished. Over lower part of lung, inspiratory murmur harsh; and expiratory murmur, which in its first half is blowing, terminates only after apparent cessation of movements of thoracic walls by a few gentle puffs. A fine dry crepitation is developed by forced inspiration. Ultimately in this region there were uniform dulness, tubular breathing, and bronchophony. *Examination of Right Lung:* Percussion over anterior third tympanitic; elsewhere normal. Inspiratory murmur harsh and divided; expiratory prolonged, blowing, and accompanied by sibilant rhonchi; vocal resonance increased. No distress of breathing. Cough infrequent, but paroxysmal, and ending in vomiting. Expectoration occurs at close of paroxysms. Sputum mucopurulent, streaked with pigment, and not lumpy. Bands and areolæ of elastic tissue present. *Circulatory Organs:* Apex beat at upper border of fourth rib, just outside nipple. Visible pulsatile movement (nearly synchronous with ventricular contraction) in second intercostal space an inch and a half from left border of sternum. Low-pitched systolic murmur at cartilage of second left rib; can be followed a little way upwards and outwards, but not downwards, or to right side; it is increased by deep inspiration, and modified by position. Pulse 74, small. *Summary of Post-mortem Examination:* Heart small, and displaced upwards; no valvular disease; origin of vessels compressed by solidified lung, with pericardium adherent to it. Right lung, with the exception of some vesicular emphysema and some thickening and congestion of the bronchial mucous membrane, absolutely free from disease. Left lung universally adherent, diminished in bulk, and about its middle third, dense and fibrous. When cut open, the summit was seen to be free from disease. The inferior part was traversed by fibrous septa, some of which, pursuing a horizontal direction, occupied the place of the bronchi and blood-vessels: some, intersecting, occupied the place of the interlobular areolar tissue. Imprisoned portions of lung contained cheesy deposits, at parts broken up into cavities. Several bronchial tubes were dilated, and terminated in ulcerous dilatations. No grey granulation anywhere to be found. Bronchial glands enlarged and cheesy. Liver very large and waxy. Capsule of spleen much thickened. Kidneys granular, and capsule adherent. All these organs at scattered spots became reddish-brown on the application of iodine; so also did some minute portions of the fibroid deposit in lung. Numerous deposits in and ulcerations of ileum. Mesenteric glands enlarged.

Dr. C. J. B. WILLIAMS regarded the disease called by Dr. Clark fibrous phthisis as of the same nature with that observed in two cases published by himself thirty-three years before. This disease had subsequently been described by Dr. Corrigan, of Dublin, as cirrhosis of the lung. He believed that it always originated in pleuro-pneumonia, and considered that its most characteristic peculiarity consisted in the contraction of the diseased organ, or rather of the fibroid material deposited in it, and in the consequent dilatation of the bronchial tubes. This deposit of what he had then called "cacoplastic" lymph, no doubt often occurred as a disease of itself, but he thought it was most frequent as a modification of ordinary phthisis; its pathological relation to truly tuberculous deposits appeared to him to be very close. The latter, which in his "Principles of Medicine" he had designated "aplastic," seemed to him to differ from the former principally in its tendency to softening and disintegration; but he regarded this difference as one rather of degree than of nature, for all gradations were met with between them. Those cases of phthisis in which the pulmonary disease tends to assume the fibrous character might be generally distinguished by the collapse of the affected side of the chest, and by the displacement of the heart upwards, especially where extensive softening and excavation of the diseased organ had previously taken place. But the character which it is most important to recognise is their slowness of progress, for it is to this tendency to chronicity that they owe their comparative curability. The result of post-mortem examination seemed to show that the anatomical peculiarity of fibrous phthisis consists in the substitution of a fibrous for a corpuscular deposit, which, notwithstanding, is so far "cacoplastic" as to be capable of cheesy degeneration. The marked tendency which exists to obsolescence is indicated by puckering and cicatrisation, processes contrasted strongly with the deliquescence and breaking down of tissue which are the anatomical expression of the more acute forms of consumption.

Dr. GREENHOW objected to the employment of the term "fibrous phthisis" to designate the case communicated by Dr. Clark, on the ground of inaccuracy. He regarded the disease of which it was an example as differing from pulmonary consumption in its origin, progress, and issue. In illustration, he referred to two out of many cases which had come under his observation; both of them were of slow progress and long duration, the patients retaining their general health, and being able to follow their ordinary occupations. In one the disease had evidently arisen from the inhalation of dust, independently of any constitutional cause or predisposition; while in the other it appeared to have been caused by a blow on the chest in a pugilistic encounter. In referring to the pathological appearances observed in these cases, Dr. Greenhow adverted to their resemblance to those seen in the so-called peripneumonial exudation of bovine animals, in which the diseased lung is converted into a solid flesh-like mass, intersected by white bands formed by plastic effusion into the interlobular partitions, the lung-tissue itself presenting the appearance of a granular mass traversed in all directions by bands of fibres.

Dr. ANSTIE adverted to certain cases narrated by French writers, in which, although the lungs after death presented the anatomical characters of fibrous induration and contraction, the progress of the disease to a fatal termination was extremely rapid, and related a case of this nature which had come under his own observation some years previously. He thought it most important to inquire whether such cases are identical with the more chronic cases now under consideration. The whole question appeared to him to turn much more on etiological than on anatomical considerations, and particularly on the facts of hereditary transmission. With this view he would ask Dr. Williams and others of large experience in chest disease who were present, whether they had observed that in the offspring of parents affected with "fibrous phthisis" the disease invariably assumed the same character, or *vice versâ*.

Dr. POWELL related a case which had recently occurred at the Consumption Hospital under the care of Dr. Pollock,

which appeared to have all the characters of that narrated by Dr. Clark. The patient had been under observation for more than seven years, having been five times admitted into the Hospital. During the first part of his illness the right lung was entirely free from disease, while a large cavity existed in the left; at his last admission the right lung also became diseased. After death the left lung was found to be converted into a fibroid mass, containing a large cavity in the upper lobe, with indurated walls. The right lung contained disseminated masses of induration, most of which were caseous. There was waxy degeneration of the kidneys and liver, to which changes Dr. Powell considered that the fatal termination was to be attributed rather than to the pulmonary disease.

Dr. Marcet remarked he had attended a case resembling in some respects that communicated by Dr. Andrew Clark. His (Dr. Marcet's) patient had exhibited symptoms of extensive consolidation of the left lung, although none but bronchitic signs in the right. There had been hæmoptysis and purulent expectoration. The disease had been slow in its progress, lasting for at least five or six years, and, when dying, the patient had become pallid and waxy-looking. His urine had been albuminous for a considerable period. This patient did not die of disease of the lungs, but of failure of the heart's action in consequence of what appeared to be on the post-mortem examination a mass of fat in the right ventricle and auricle. The kidneys were also concerned in the fatal termination, being in a condition of advanced fatty degeneration; the peritoneum was loaded with fat. The left lung was greatly contracted and transformed into a tough, resistent, spongy mass, adhering very firmly to the thoracic parietes; no grey granulations could be observed in it. Cavities were detected at the apex lined with calcareous matter; but few cheesy masses were present: these were of a small size, and undergoing the calcareous transformation. The right lung was not consolidated, and exhibited no grey granulations and no cheesy deposits; it adhered to the thorax at the apex and posteriorly, and was in some measure emphysematous.

Dr. Ringer pointed out that the essential characteristic of the disease described by Dr. Clark consisted not so much in contraction or in duration of the lung as in its inseparable relation with albuminoid degeneration of other organs.

Dr. Sutton, referring to his own researches, recalled the attention of the Society to the fact that, although there are such cases as had been described by previous speakers in which pulmonary induration and contraction occur as a consequence or complication of tubercle, these cases are not at all those understood by Dr. Clark as fibrous phthisis, in which there neither was, nor ever had been, tubercle. Fibroid induration resulting from tubercle was one thing; fibroid phthisis an entirely different thing.

Dr. Julius Pollock, after adverting to observations made by him at King's College Hospital, wished to know what Dr. Clark had to say as to the treatment of the disease.

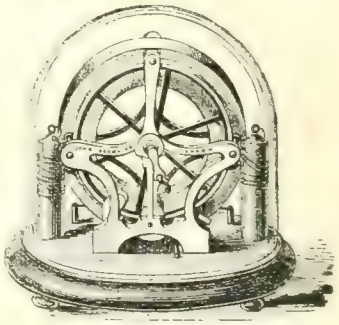
Dr. Pollock entirely disagreed with Dr. Clark in the interpretation he had given of his case. It appeared to him to be one of ordinary chronic phthisis, in which the patient had not died of degenerative disease of other organs. The other lung would have become the seat of tubercular deposits, just as in the instance referred to by Dr. Powell. He considered that the concurrence of marked contraction of one side of the chest with an equally marked tendency to chronicity of progress was a matter of common observation in phthisis, and that, in whatever degree this manifested itself, it always afforded ground for favourable prognosis. It showed that a process had commenced in the diseased lung, which, if it went on long enough, would lead to the limitation and contraction of existing tuberculous deposits, and to the arrest of the disease in cases presenting these characters. Dr. Pollock had seen an infinite number, and had recorded a good many; but he did not think that anything would be gained by giving it a special name, for the disease was not, in his opinion, a separate entity: it could not be separated from ordinary tubercular disease, of which it was a mere complication or concomitant, its peculiarity being rather one of progress and development than of nature. In some of the cases which he had watched to their fatal issue, the result was due, as in Dr. Clark's case, to morbid changes in other organs; but in all which had run a sufficiently protracted course, the sound lung had eventually become affected, death occurring not from extension of the disease in the organ first attacked, but in that which had for years remained sound. In the absence of other complications, he regarded the immunity of one lung as the test of the patient's security. In conclusion, Dr. Pollock dwelt upon the necessity of employing the word "tubercle" in a broad and comprehensive sense, so as to include the great varieties of morbid processes in which tuberculous characters manifest themselves.

Dr. Clark replied.

The Society adjourned at 10 p.m.

NEW INVENTIONS.

MR. BROWNING'S NEW MAGNETO-ELECTRIC MACHINE.



Those who employ electricity in the treatment of paralysis are well aware that there is a remarkable difference between the current produced by the ordinary induction coil and pair of plates and that which is produced by the magneto-electric apparatus, which is usually worked by hand. The peculiarity of the currents in the common magnetic apparatus is, that they are being constantly reversed. This, which by many electro-therapeutists is considered an objection, has been completely obviated in the handsome and ingeniously contrived machine represented above. The general arrangement of the wheels, by which rapid rotation is effected, is obvious to every one acquainted with mechanics. The contrivance by which the reversal of current is prevented is not, however, quite so apparent. The magnet employed by Mr. Browning is nearly circular, and hence the armature is of a simpler character than in the older instruments. As in other magnetic machines, each time the armature revolves the current changes, but by the introduction of a peculiar commutator at each revolution of the armature, the direction of the current is twice reversed in relation to the terminal poles, so that all the positive currents are sent through one wire, and all the negative currents through the other. The new instrument is manufactured by Mr. John Browning, of the Minories, the improver of Sorby's micro-spectroscope.

THE POOR-LAW BOARD ON THE SUPPLY OF MEDICINES FOR THE SICK POOR.

Sir,—I am directed by the Council of the Metropolitan Poor-law Medical Officers' Association to request the insertion in the *Medical Times and Gazette* of the enclosed correspondence between the Poor-law Board and themselves on the subject of the supply of medicines for the sick poor of the metropolis under Mr. Hardy's Act.

The Council, although disappointed by the opinion of the Board on the main question, are yet very glad to have elicited their opinion that "the supplying of medicines by the guardians as a distinct proceeding on their part is an expedient course," and trust that it will have due weight with the guardians who have not already adopted that course for the sake of the sick poor. Not for the metropolis only, but in all parts of the kingdom, the Council hope that some means may yet be found to make the practice general, being convinced that the mere cost of the medicines, if supplied upon the proper Hospital scale, would in many cases equal the amount of the salaries paid to the Medical officers.

I am, &c.

March 11. T. Orme Dudfield, M.D., Hon. Sec.

To the Editor of the *Medical Times and Gazette*.

8, Upper Phillimore-place, Kensington, W., February 12, 1868.

My Lords and Gentlemen,—I am directed by the Council of the Metropolitan Poor-law Medical Officers' Association to inform your Board that, at a quarterly meeting of the Association held on the 31st ultimo, Mr. B. Clark, the Medical officer of the East London Union Workhouse, having submitted a correspondence between your Board and the guardians of that Union and himself relating to the supply of medicines for the sick poor, in which your Board state an opinion that clause 3 of section 69 of the Metropolitan Poor-law Act, 1867, "does not interfere with the existing contracts, and that, so long as such contracts continue, their terms must be complied with—hence, where a Medical officer has contracted with the

guardians to find drugs and medicines, he must continue to do so until his contract has been determined"—it was, after consideration, resolved—

"That the Association desires to express the disappointment with which it has learnt the opinion of the Board, and, believing it to have been the intention of the Legislature that all medicines, etc., supplied to the sick poor in receipt of relief by guardians in the metropolis on and after the 29th day of September, 1867, should be paid for out of the common poor fund, requests the Council to memorialise the Board that they would be pleased to exercise the powers vested in them by the Act, and to vary the existing contracts so as to give effect to the intentions of the Legislature."

In fulfilling the duty thus imposed upon them, the Council direct me respectfully to submit to your Board that the expectation having been general that all medicines, etc., would be paid for on and after Michaelmas-day last out of the common poor fund, much dissatisfaction has arisen from the disappointment of that expectation, and that the feeling has been intensified by the different action taken by boards of guardians, some of which have supplied the medicines since the date in question, while others have declined to do so.

The Council, believing that uniformity of action is eminently desirable in such a case, and bearing in mind that the Metropolitan Poor Act is nearly eleven months old, and that the 69th section has been in operation more than four months, earnestly pray your Board to take such steps as may be necessary to obtain the variation of the contract, so that the medicines, etc., may be forthwith paid for direct out of the common poor fund. Pending any action your Board may resolve to take in this matter, I am directed to say that the Council would feel obliged if your Board would inform them whether clause 3 of section 69 of the Act entitles a Medical officer who has contracted with the guardians to supply the medicines to make application for the repayment of the expenses thereby incurred out of the common poor fund, and whether, in the event of any such application being made, it would be granted.

I have, &c. (Signed) T. Orme Dudfield, M.D., Hon. Sec.

To the Rt. Honble. the Poor-law Board.

Poor-law Board, Whitehall, S.W., March 9, 1868.

Sir,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 12th ultimo, and with reference to the request contained in the resolution of the Council of the Metropolitan Poor-law Medical Officers' Association, of which you have forwarded a copy, to state that, although the Board are of opinion that the supplying of medicines by the guardians as a distinct proceeding on their part is an expedient course, the Board have no power, under the Metropolitan Poor Act, 1867, to terminate any existing contracts between guardians and their Medical officers, except for the purpose of giving effect to the provisions of the Act with respect to the establishment of dispensaries.

I am directed to add, in reply to the last paragraph of your letter, that section 69 of the Metropolitan Poor Act, 1867, does not entitle a Medical officer, who has contracted with the guardians to supply the medicines, to repayment for such medicines out of the metropolitan common poor fund. It should, however, be observed that inasmuch as in such cases the remuneration for the medicines is included in the salary which the Medical officer has agreed to accept, the cost of the medicines will, in point of fact, be borne by the common fund, from which the salary itself is now made payable. I am, &c.

(Signed) H. Flemming, Secretary.

To T. Orme Dudfield, Esq., M.D., 8, Upper Phillimore-place, Kensington, W.

NEW BOOKS, WITH SHORT CRITIQUES.

Guinea Worm or Dracunculus; its Symptoms and Progress, Causes, etc. By J. Africanus B. Horton, M.D. Edin., Staff Assistant-Surgeon of H.M.'s Forces in West Africa, Author of "Physical and Medical Climate and Meteorology of the West Coast of Africa," etc. London: John Churchill and Sons. Pp. 51.

*** In West Africa this disease is extremely prevalent, and accordingly Dr. Horton has had ample opportunities for studying it. He enters into full details with regard to the creature which produces so much mischief, and, most important of all, suggests a mode of cure. Should this on investigation prove satisfactory, Dr. Horton will have conferred a great boon on many sufferers. He recommends the exhibition of assafœtida, which, he says, destroys the worm, after which it is gradually absorbed.

Vaccination impartially Reviewed. By Ferdinand E. Jencken, M.D., M.R.C.P. Pamphlet. London: John Churchill and Sons.

*** This was one of the prize essays sent in to the Ladies' Sanitary Association, and is a short, but sensible paper on the subject it professes to deal with. Dr. Jencken does not shirk the difficulties connected with vaccination, but shows whereby they may to some extent be avoided, and concludes, with all right-thinking men, that the benefits derived from the practice are incalculable, although now and again certain facts tending to prejudice it in thoughtless eyes may turn up.

Lectures on the Study of Fever. By Alfred Hudson, M.D., M.R.I.A., Fellow of the King and Queen's College of Physicians, Physician to the Meath Hospital. Second edition. Dublin: M'Gee. Pp. 408.

*** Dublin unfortunately affords only too many opportunities for studying fever, and we may safely say that no better introduction to this subject can be had than Dr. Hudson's work, which is worthy of the school of Graves. The first edition has been sold with unusual rapidity for a book of this kind, and now that it appears in an altered and improved form we may safely predict for it a similar reception.

British Social Wasps. By Ed. Latham Ormerod, M.D. Cantab., F.R.C.S., Physician to the Sussex County Hospital. London: Longmans. Pp. 270.

*** To the ranks of our Profession belong a very large number of the working naturalists—men who snatch a few brief moments of leisure in a life of hard work to advance the science they love. Of these Dr. Ormerod is an example, and the fruits of his labours appear in the beautifully illustrated work whose title is given above. Although not a rigidly scientific work, written in scientific jargon, the book contains much that is new and more that is interesting, since Dr. Ormerod is a keen as well as a patient observer; for, as he says, "wasps have been my holiday companions for many years." This, in fact, constitutes a regular monograph on the habits of the various species of wasps found in Great Britain; but it also deals with their classification, as well as with their anatomy and physiology.

Mechanical Therapeutics; a Practical Treatise on Surgical Apparatus, Appliances, and Elementary Operations. By Philip S. Wales, M.D., Surgeon, U.S.A. Philadelphia: H. C. Lea. Pp. 685.

*** This is probably one of the most elaborate works of the kind ever turned out, constituting a volume of 685 pages, and illustrated by 684 engravings. The woodcuts are not of the highest class, but they are sufficiently good for all practical purposes. It would be impossible, with the small space now at our disposal, to give even a faint sketch of its contents, but we may say that those preparing for army or navy boards would do well to make themselves masters of its contents.

Pathological Anatomy of the Female Sexual Organs. By Julius M. Klob, M.D., Professor in the University of Vienna. Translated from the German by J. Kammerer, M.D., Physician to the German Hospital and Dispensary, and Benj. F. Dawson, M.D., Assistant to the Chair of Obstetrics in the College of Physicians and Surgeons, New York. New York: Moorhead, Simpson, and Bond. Pp. 299.

*** The translation of this valuable work is another feather in the cap of our American brethren. One other most important work has seen the light in an American dress only—we mean Scanzoni's work on the Diseases of Women, the translation of which, by Gardner, is widely read even in England. This will, we doubt not, be equally popular.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 5, 1868:—

Cortis, William Richard, 141, Kennington-park-road, S.
Docking, Thomas, Sydney, New South Wales.
Wilson, Richard Langford, Loddington Vicarage, Uppingham, Rutland.

The following gentlemen also on the same day passed their First Examination:—

Chabot, Herbert, Guy's Hospital.
Taylor, John, Guy's Hospital.
McMahon, John James, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Anstey, A. N., M.D.—House Surgeon and Secretary to the Royal Eye Hospital, Manchester.

Brown, J. F. C., M.D.—House-Surgeon to the Chalmers Hospital, Banff.

Gee, S. J., M.D.—An Assistant-Physician to St. Bartholomew's Hospital.

Lee, Dr. R.—Consulting Physician to the British Lying-in Hospital.

Truman, Dr. E. B.—One of the Consulting Surgeons to the Nottingham General Dispensary.

BIRTHS.

Gardner.—On March 3, at Johnstone, N.B., the wife of R. Gardner, M.D., of a daughter.

Geese.—On March 6, at 26, Broad-street, Brighton, the wife of C. Geese, M.R.C.S., of a son.

Haig.—On March 2, at Airth-by-Falkirk, N.B., the wife of D. Haig, M.D., of a daughter.

Hooper.—On March 4, at Tenby, the wife of J. H. Hooper, F.R.C.S., of a daughter.

Hunter.—On March 10, at Dartford, Kent, the wife of R. Hunter, M.R.C.S., of a son.

Hutchinson.—On March 9, at 198, Oxford-road, Manchester, the wife of Dr. F. B. Hutchinson, of a son.

Ord.—On March 4, at 57, Wood-street, Woolwich, the wife of C. K. Ord, M.D., F.L.S., H.M.S. *Fisgard*, of a daughter.

Wade.—On March 8, at Sussex-house, Southsea, Hants, the wife of S. Wade, Surgeon H.M.S. *Asia*, of a son.

MARRIAGES.

Fry—Campbell.—On March 3, at Comber, W. Fry, Assistant-Surgeon H.M.'s Indian Army, to Mary, widow of J. Campbell, jun., Esq., of Belfast, and daughter of the late G. Stone, Esq., J.P., of Barn Hill, Comber, county Down, Ireland.

Hall—Thompson.—On March 5, at St. Philip's Church, Sheffield, by the Rev. Wm. Mercer, M.A., Frederick Hall, Esq., M.R.C.S., Leeds, to Frances Blake, daughter of Wm. Thompson, Esq., Upperthorpe, Sheffield.

Staff—Wilkins.—On March 5, at Wadebridge, Cornwall, G. T. A. Staff, M.R.C.S.E., Wadebridge, to Mary Elizabeth, younger daughter of J. Wilkins, M.R.C.S.E., of Wadebridge.

Tibbits—Robson.—On March 4, at Brighton, H. Tibbits, L.R.C.P. Lond., to Anna Maria, widow of the late J. Robson, Esq., Burfield, Somerset. No cards.

Trimnell—Barnett.—On March 3, at St. Mary's, Hornsey, Dr. E. A. Trimnell, Medical Staff, to Maria Amelia, second daughter of J. D. Barnett, Esq., Crouch-end, Hornsey. No cards.

DEATHS.

Baddeley, J., M.D., at Edinburgh, on February 29, aged 22.

Dickson, J. R., M.D., of Whalley, Lancashire, on February 27.

Dix, E., M.R.C.S.E., L.S.A., at Old Steyne, Brighton, on March 7, in his 69th year.

Duffy, E. M., M.D., at Longford, Ireland, on February 21, aged 52.

FAYRER, G., M.D., at Henley-in-Arden, on March 5, in his 57th year.
HENDERSON, D., M.D., late of the 5th Fusiliers, at Park-villa, Worthing, Sussex, on March 9.
LESLIE, J., M.D., at Buenos Ayres, on January 13, aged 51.
MACALISTER, N. M., M.D., at Strathaird-house, Isle of Skye, on February 25.
MONTGOMERY, M.R.C.S.E., of Devizes, on March 1, in his 56th year.

VACANCIES.

BIRMINGHAM GENERAL DISPENSARY.—Resident Physician and Secretary—Resident Surgeon.
CHARING CROSS HOSPITAL.—Chair of Botany.
GLOUCESTER INFIRMARY.—Assistant-Physician and Assistant-Surgeon.
ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Stroud Union.—Mr. J. Rogers has resigned the Workhouse; salary £150 per annum.
Wigan Union.—The Blackrod District is vacant; area 6005; population 8,572; salary £60 per annum.

APPOINTMENTS.

Bangor and Beaumaris Union.—Edward R. Barker, M.D. St. And., M.R.C.S. Eng., to the Anglesey, No. 3, District.
Gloucester Union.—George Henry Anderson, M.C. and M.D. Aberdeen, to the Lanthorne District.
Stockton-on-Tees Union.—Thos. S. Swinburn, M.R.C.S. Eng., to the Mickleton District.

UNIVERSITY INTELLIGENCE.—OXFORD: BURDETT-COUTTS SCHOLARSHIP.—The examiners for this scholarship, Professor Phillips, Professor Brodie, and E. Chapman, M.A., have awarded the vacant scholarship to Mr. George H. West, B.A., junior student of Christ Church. This scholarship was founded in 1860 by Miss Burdett Coutts for the study of geology, and of natural science as bearing on geology. The scholarship is tenable for two years. Mr. West was placed in the second class in the natural science school in Trinity term, 1866, and in 1867 gained the Stanhope historical essay.—Mr. H. A. Black has been elected to the vacant physical science junior studentship at Christ Church.—In a congregation held on Thursday, March 5, at 2 p.m., Messrs. Symonds and Morrell were admitted to the office of University coroners.

UNIVERSITY OF EDINBURGH.—In order to suit the convenience of the Medical students, the Medical Faculty have agreed to hold the second Professional written examination on Materia Medica and Pathology on April 8, and the written examination on Anatomy and Physiology on April 9 next.

ROYAL COLLEGE OF SURGEONS.—There are now 1320 Fellows of this institution—viz., 344 by examination, 233 honorary, and 743 by election. At the last election of Fellows into the Council 301 recorded their votes—viz., 132 by examination, 44 honorary, and 125 by election.

ACADEMIE DES SCIENCES.—An election has just taken place in the room of the late M. Rayer, in the section of Rural Economy and Veterinary Science. The section sent up its list of names with that of M. Reiset first, and M. Bouley, the celebrated Alfort Professor, second. At the first round of the ballot-box M. Reiset had 26 and M. Rayer 27 votes, and at the second M. Bouley had 32 and M. Reiset 24.

TYPHUS FEVER of an aggravated character has recently broken out in Tunis, in consequence of the famine. Passengers thence are not allowed to land at Malta. Her Majesty's frigate *Arethusa* is under fumigation at Malta. The captain and several of the crew have been attacked with small-pox and scarlatina, but are now doing well.—*Guardian.*

ATTEMPT TO BRIBE A PHYSICIAN.—A man at Huddersfield has been charged with an attempt to bribe a Medical man to destroy the child of a woman whom he was about to deliver. He has been remanded for further evidence.

MEDICAL CHARITIES.—The funds of the Manchester Royal Infirmary and Dispensary have been augmented by a legacy of £1000, and those of the Salford and Pendleton Royal Hospital by one of £500, under the will of the late Mr. James Fallows, of Sunny Bank, Longsight, Manchester.

THE REV. MR. SPEKE.—A report that Mr. Speke has been placed in a private asylum has been contradicted. He is now at Orleans, where he writes home cheerfully to his friends.—*Guardian.*

THE London Society of Compositors, at their annual general meeting a few days since, voted the sum of ninety guineas for Medical charities for the current year.

THE SEDGWICK GEOLOGICAL PRIZE.—This prize will be awarded in 1871 to the best essay on the following subject:—"The Geological Distribution, Conditions of Occurrence, Origin, and Mode of Mineralisation of the Stratified Phosphatic Deposits in this Country." The prize is open to all Cambridge graduates who shall have resided sixty days during the twelve months preceding October 1, 1870.

THE *Owl* states that the office of Parliamentary Secretary to the Poor-law Board, lately held by Mr. Sclater-Booth (now Financial Secretary to the Treasury), was offered to Lord Eustace Cecil, the member for South Essex, and declined, and that it will probably be placed at the disposal of Sir Michael Hickes Beach, M.P.

MR. KNAGGS AND THE ST. PANCRAS GUARDIANS.—The case of Mr. Knaggs, one of the Medical officers to the St. Pancras district, having been brought before the Relief Committee, and it having been reported by that body that he had violated the orders of the Poor-law Board in neglecting a woman during her confinement, the majority of the guardians resolved to dismiss him with a month's notice.

MEDICAL OFFICER TO ST. PANCRAS.—The appointment of Medical Officer for Women to St. Pancras Workhouse has been given to Mr. John B. Welch, late of King's College Hospital, and temporary Resident Physician to the *Dreadnought*. The salary is £100 a year, with rations, washing, and apartments, and was vacated by Mr. Perkins. There were ten unsuccessful candidates.

The Royal Society's *soirée* came off on Saturday night last, and was most successful, the attendance of distinguished *savants* being large, and the objects of scientific interest exhibited numerous. His Royal Highness the Prince of Wales was present. The instruments which attracted most attention were the weather semaphores and self-registering apparatus of the Meteorological Committee, the signal semaphores proposed for the regulation of street traffic, and the pneumatic telegraph—a contrivance for conveying the orders of a naval commander to every portion of his ship, and enabling him, if required, to fire the guns himself.

THE PROPOSED MORTUARY.—The Vestry of St. George-the-Martyr, with an uncommon degree of intelligence, have proposed to utilise one of the old burial-places by constructing thereon a parish mortuary, together with a furnace and shaft, for the proper destruction of infected clothes, bedding, etc. Whether, however, the Vestry are quite justified in selecting a burial-ground as a site for their new sanitary buildings is an open question. The proposal is meeting with determined opposition from the parishioners.

PENSION TO LADY BREWSTER.—Sir James Y. Simpson has received the following letter from the Prime Minister:—"10, Downing-street, Whitehall, March 5, 1868.—Dear Sir James,—I have much gratification in informing you that her Majesty has been graciously pleased to grant a pension of £200 per annum to the widow of Sir David Brewster, in recognition of his eminent services to science. I have the honour to remain, dear Sir James, yours faithfully, B. DISRAELI.—Sir James Simpson, M.D."

THE REGISTRAR-GENERAL'S REPORT FOR SCOTLAND (FEBRUARY).—The deaths of 2170 persons were registered in the eight towns during February, of whom 1084 were males, and 1086 females. Allowing for increase of population, this number is 265 under the average mortality of February during the last ten years. Of the 2170 deaths, 943, or 43 per cent., were of children under 5 years of age. In Perth, 28 per cent. of the persons who died were under 5 years; in Aberdeen, 29 per cent.; in Edinburgh, 33 per cent.; in Paisley, 36 per cent.; in Greenock, 41 per cent.; in Dundee, 44 per cent.; in Leith, 48 per cent.; and in Glasgow, 50 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 469 persons, thus constituting 21·6 per cent. of the mortality of the eight towns. This rate was exceeded in Dundee and Leith, from the prevalence and fatality of measles in the former, and scarlatina in the latter town.

SMALL-POX PATIENTS.—At the meeting of the Metropolitan Asylum Board on Saturday, Dr. Brewer in the chair, the small-pox committee reported as follows:—"That having considered the reference made to them by resolution of the Board on February 22 last, in the letters received from the Poor-law Board and the Greenwich Board of Guardians on the subject of providing temporary accommodation for paupers suffering from small-pox, they are of opinion that, pending the erection of permanent Hospitals, temporary accommodation should be provided in the metropolitan district for small-

pox cases, and that, should the above be adopted, it might perhaps be carried out by placing on each of the sites purchased by the Board for this purpose a temporary building to be devoted to the use of small-pox patients; or, if any considerable delay should occur in acquiring a site on the south side of the Thames, a piece of land might be hired or an empty building obtained for the purpose." This report, we are glad to learn, was adopted.

DR. EASTLAKE AND THE BRITISH LYING-IN HOSPITAL.—A special general meeting of the Metropolitan Counties Branch of the British Medical Association, convened by requisition, to take into consideration the treatment received by Dr. Eastlake from the governors of the British Lying-in Hospital, was held at 37, Soho-square, on Tuesday, the 10th inst., at 3 p.m. Dr. Markham, President of the Branch, occupied the chair. A written statement, drawn up by Dr. Eastlake, was read by the President. After much discussion, the following resolutions were passed:—1. Proposed by Dr. Routh, seconded by Dr. Ramsey, and carried: "That a committee be appointed to consider the question of Dr. Eastlake's treatment by the governors of the British Lying-in Hospital." The following gentlemen were chosen members of the committee:—T. Heckstall Smith, Esq., C. F. J. Lord, Esq., Dr. Gream, Dr. Ramsey, Dr. J. Seaton, Dr. Waller Lewis, and Dr. Hillier. 2. Proposed by Mr. Ernest Hart, seconded by Dr. A. P. Stewart, and carried: "That the committee be authorised to investigate the collateral matters relating to the course pursued by Dr. Edmunds, Dr. Eastlake, and the Editor of the *Journal*."

THE SICK-CLUB QUESTION.—A meeting to consider the subject of sick-club remuneration is announced to take place at the Prince of Wales Hotel, Masbro' on Thursday, March 19, at 3 o'clock in the afternoon. The object of the meeting is to endeavour, by united and unanimous action on the part of the Medical men of the district, to raise the present inadequate payment made by the various sick clubs and societies for Professional attendance during sickness or disablement. The average payment in this district falls a little below 3s. per head per annum. Messrs. Crowther, Darwin, Foote, Hardwicke, Knight, Oxley, Robinson, Saville, Shearman, Wilkinson, Rotherham; Le-Tall, Handsworth; Latimer, Anston; Crossley, Maltby; Hills, Conisbro'; Carmichael, Lewis, Redford, Masbro'; Blythman, Swinton; Payne, Newhill; Walker, Masbro'; Muir, Wombwell; Allott, Hoyland; Clarke, Wentworth; J. Burman, W. Burman, Syson, Wath, are expected to be present.

SOIRÉE OF THE CHEMICAL SOCIETY.—The President of the Chemical Society and Mrs. Warren De la Rue received a brilliant and distinguished company on Wednesday evening at Willis's Rooms, King-street, St. James's. Amongst the company were Archbishop Manning, Colonel Sykes, Mr. Robert Lowe, M.P., Professors W. A. Miller, Tyndall, Williamson, Partridge, Drs. Guy, Fuller, Julius Pollock, Dickinson, Playfair, etc., etc. The walls of the large room were hung with pictures by Gainsborough, Turner, Clarkson Stansfeld, and other distinguished artists. The tables were covered with microscopes, stereoscopes, spectroscopes, and a variety of interesting chemical and philosophical apparatus. Amongst other interesting objects we especially noticed a dialytic apparatus, exhibited by the Master of the Mint, for absorbing and separating hydrogen by means of the metal palladium; Siemen's electric resistance measurer and resistance thermometer, by means of which very high degrees of temperature may be measured by the deflection of a magnetic needle; the anemograph, barograph, and thermograph prepared for the Kew Committee; a new form of reflecting goniometer, exhibited by Mr. John Browning. Refreshments of every kind were provided in the ante-rooms. The company did not separate till near midnight.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The College has recently modified the form of declaration required to be made by every candidate before being admitted as a Licentiate, with a view to allowing Practitioners to supply medicines to their own patients. Thus, instead of requiring an engagement on the part of its candidates to surrender its diploma if they shall "either compound or dispense medicines for sale," the Licentiates of the College are now bound merely not to "keep open shop for the sale of medicines." The following by-law is completely abrogated:—"If the applicant be a member of an Apothecaries' Company, he must surrender his certificate as such previously to examination; and, if admitted, he must not be registered as an apothecary in any part of the United Kingdom."

THE ROYAL ACADEMY.—The first Professor of Anatomy to the Academy was Dr. William Hunter, the brother of John Hunter, who held the office from the foundation of the institution in 1768 until his death in 1783. John Sheldon filled the chair from the last-named period until his death in 1808; he gratuitously dissected a horse and had casts made from it for the sole use of the students; he was much respected. It is stated that he was the first Englishman who made an experimental ascent in a balloon. Sheldon was succeeded by Sir Anthony Carlisle, twice President of the College of Surgeons, whose lectures were highly attractive; he resigned in 1824, and was succeeded by Mr. Joseph Henry Green, whose lectures were hardly less popular than those of Carlisle; he resigned the chair in 1851, and was succeeded by Professor Partridge, who, without aiming at the eloquence of his predecessor, delivered most serviceable discourses. The *Athenæum*, in commenting upon the coming election, states that what is wanted for the office is not so much a man profoundly skilled in anatomy of the Surgical sort, as one who is able to impart clearly the results of the philosophical analysis and generalising of the human structure as it appears in form—that is, "form" in the artistic sense of the term.

MEDICAL SOCIETY OF LONDON.—The following is a list of Fellows recommended for office by the Council:—*President:* B. W. Richardson, M.D. *Vice-Presidents:* George Buchanan, M.D.; Victor De Méric, Esq.; Andrew Clark, M.D.; and John Gay, Esq. *Treasurer:* C. H. Rogers-Harrison, Esq. *Librarian:* Edward Head, M.D. *Secretaries-in-Ordinary:* Francis Mason, Esq., and A. E. Sansom, M.D. *Secretary for Foreign Correspondence:* Julius Althaus, M.D. *Council:* J. W. Barnes, Esq.; John Birkett, Esq.; W. Cholmeley, M.D.; Charles Cogswell, M.D.; Alfred Cooper, Esq.; Walter J. Coulson, Esq; R. W. Dunn, Esq.; Tilbury Fox, M.D.; S. Day-Goss, M.D.; Arthur Leared, M.D.; Morell Mackenzie, M.D.; Peter Marshall, Esq.; Henry Maudsley, M.D.; F. W. Pavy, M.D.; William Potts, Esq.; W. R. Rogers, M.D.; Abbotts Smith, M.D.; Henry Smith, Esq.; E. Symes Thompson, M.D.; W. Spencer Watson, Esq. *Orator:* Sir Duncan Gibb, Bart., M.D.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the General Monthly Meeting on Monday, March 2, 1868, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair, Frederick Dale Banister, Esq.; Peter Henry Berthon, Esq.; Miss Martha Conway; Mrs. Ernest Hankey; Charles Hart, Esq.; Mrs. Henry Huth; Benjamin Isaac, Esq.; Morton Latham, Esq.; Mrs. Le Breton; Robert Longsdon, Esq.; Alexander Macmillan, Esq.; William Ingram Marter, Esq.; Thomas Parry, Esq., M.P.; Mrs. Frederick Pollock; Robert Prance, Esq.; Miss Edith Prance; Edward Smirke, Esq.; John Palmer Stocker, Esq.; Charles H. Lardner Woodd, Esq., were elected Members of the Royal Institution. The special thanks of the Members were returned for the following additions to "the Donation Fund for the Promotion of Experimental Researches":—Arthur Giles Puller, Esq. (third donation), £21. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—At a meeting of the Council of this Association held on the 10th inst., Dr. Rogers tendered his resignation of the office of President. The Council, after expressing the surprise and regret with which they had learnt that the Poor-law Board had called upon Dr. Rogers to resign his appointment as Medical officer of the Strand Union Workhouse, after stating that "no complaint has been made to them in respect of the discharge of his strictly Professional duties, and they do not doubt that he has shown both zeal and ability in their performance," passed a vote of thanks to him for his past services, and, having declared their continued confidence in him, and their belief that it is still in his power to do good service in the cause of Poor-law Medical Reform, they unanimously requested him to continue to hold the office of President of the Council until the next quarterly general meeting of the Association—a course to which Dr. Rogers, after suitable acknowledgment of the kind feeling which dictated the proposition, cheerfully assented.

NEW DWELLINGS IN PARIS.—According to Baron Hausmann's report just issued, there were erected in Paris, during the year 1866-67, 3809 houses, being the greatest number that have been erected in any one year since 1860, when they amounted to 3986. During the same year, 2305 houses were demolished; but while the lodgings created by

the new houses amounted to 23,753 (the greatest number in any year), those comprised in the houses destroyed were only 14,287. During the large afflux of visitors of last year, lodgings were always abundant enough, although, according to accurate data, these may be reckoned at 2,400,000, or 100,000 as a constant average addition. Owing to the great numbers of additional houses that were temporarily converted into lodging-houses, although lodgings were offered at all prices, yet the average prices were not sensibly raised. At the present time they are even somewhat below the average, as many of the speculative buildings raised for the Exhibition time now enter into the competition for tenants. Of the 9466 additional lodgings supplied this year, 3471 are of rents less than 250 francs, 4857 of rents between 250 francs and 1500 francs, and only 1138 above 1500 francs.

FIXITY OF SPECIES.—I was one day discussing this great question with Agassiz. He defended with eloquent warmth the doctrine of the immutability of species, and, after accumulating palæontological, zoological, and geological arguments, he all at once assumed a tone of deep conviction, and said, "Species are for me the characters of an incomprehensible alphabet. Are the efforts of genius, or the inspirations of poetry, cramped by the fixity of the characters which compose our words? With a certain number of letters, which are always the same, man is enabled to express all his thoughts. We do not comprehend this superior language spoken by visible creation, but rest assured that species are no other than characters of this language. The letters are unchangeable, but the production is always new." I was struck with this comparison, but the very discoveries of Agassiz himself furnish arguments for those who maintain that species are not absolutely independent of each other, and are united by a secret affiliation. He has shown that the fishes of the Devonian period exhibit the forms and structure of the embryos of our present fish, so that it would seem that the succession of organic forms in the same class, in a family, in a genus, is but a prolonged embryogenesis. If so, how can we refuse to admit species as reciprocal (*solidaires*)? Living beings do more than resemble the characters of a page of printing. The rigidity of the symbols which compose the words of the human languages is not a perfection, but a defect. The language of creation is not imprisoned within unchangeable figures, and the means of expression of which it avails itself may, without doubt, always undergo change.—M. Laugel's *Darwin et ses Critiques, Rev. des Deux Mondes*, March 1.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN FEBRUARY, 1868.—The following are the returns of the Metropolitan Association of Medical Officers of Health:

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition.	Oxidisable Organic Matter.	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies	Grains.	Grains.	Grains.	Degs.	Degs	Grains.
Grand Junction	..	..	..	..	..	..
West Middlesex	20·83	1·25	0·93	13·0	3·0	0·010
Southwark & Vauxhall	22·81	2·50	1·13	13·5	3·5	0·015
Chelsea	22·50	2·50	1·44	13·5	3·5	0·015
Lambeth	21·85	1·75	1·14	13·5	3·5	0·015
Other Companies.						
Kent	27·90	1·75	0·04	17·5	6·0	0·008
New River	20·83	1·25	0·58	12·5	3·0	0·008
East London	23·27	1·25	0·86	14·0	4·5	0·008

The water of the Lambeth Company was turbid.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Walter Tyrrell.—We shall be happy to receive the cases.

Dingy is thanked.—We think our Medical brethren just as well out of the club in question; they would simply be bored to death.

A Metropolitan Fellow and J. W.—The vacancy in the Council of the College of Surgeons, caused by the death of Sir William Lawrence, has not been filled up. The retiring members of the Council in July next will be Mr. Joseph Hodgson, Mr. Richard Partridge, and Sir William Fergusson, Bart. The two first named gentlemen have filled the President's chair.

G. C. D., Army.—The late Sir J. B. Gibson, the Director-General, was admitted a Member of the College of Surgeons in 1826, not a Fellow. Dr. Lays is not a Member.

Machaon.—It is quite true that the gentleman mentioned has given notice of motion to admit a *shorthand writer*, not reporters generally, to take notes of the proceedings for the benefit of the institution only.

Dr. Percival, Sydney.—The Council of the College of Surgeons is prosecuting the good work with vigour. The person named has been called on to answer the extraordinary advertisements to which we were the first to call attention; his name will be removed as soon as the necessary forms can be gone through. The Edinburgh authorities are also actively engaged in the matter. The numbers from the commencement of the volume have been forwarded. The communication will be published in an early number.

An old Apothecary.—The Apothecaries' Act received the Royal assent on July 12, 1815, and came into operation on August 1 following. In the case of the Company against Mr. Roby it was held that although the party had been in practice before and upon July 12, 1815, he was not entitled to resume his practice after August 1 if he had discontinued it before that day.

The Subjects of a Complete Education.—At a moment when every one appears to possess an educational specific—some clinging to the old *classical treatment*, and others advocating the new *scientific method*, while another party, and perhaps the most reasonable of the three, thinks that the best results are to be obtained by a combination of both systems—it may not be uninteresting to know what a great man I such as that of Milton, some centuries ago, regarded as forming a complete system of education. Its extensive character may surprise some of us who think our present generation of schoolboys and students overworked. In a note to a recently published essay of Lord Lytton's on "Many-sidedness and Self-completion," some quotations are made from a letter by Milton to Master Samuel Hartlib. He calls "a complete and generous education that which fits a man to perform justly, skilfully, and magnanimously *all* the offices of peace and war." He then sketches a general outline of rational studies for young men between twelve and twenty-one—grammar, arithmetic, agriculture, *natural history*, geometry, astronomy, geography, fortification, architecture, engineering, navigation, history of *meteors, minerals, plants*, and *living creatures, as far as anatomy* and *the art of Medicine*. All this to be assisted by the "helpful experiences of hunters, fowlers, fishermen, shepherds, gardeners, *apothecaries*, architects, engineers, miners, *anatomists*." Then follow ethics, theology, politics, law as delivered first by Moses, and, "as far as human prudence can be trusted, Lycurgus, Solon, Zaleucus, Charondas," and thence "to *all* the Roman edicts and tables, with their Justinian, and so down to the Saxon and common laws of England, and the statutes." To this are to be joined French, Italian, Latin, Greek, Hebrew; "whereto it would be no impossibility to add the Chaldee and the Syriac dialect." Truly a programme of studies which leaves those of Mr. Lowe and other educationalists of the present day far in the shade.

THE CLUB DISPUTE IN BIRMINGHAM.

(From another Correspondent.)

Audi alteram partem. Is it quite so certain, as your correspondent asserts, that "the Club-Surgeons' grievance is on the point of being redressed?" I trow not; I hope not, for the credit of the Profession. Is the "result" wrought by the decided course which the Club-Surgeons themselves have taken satisfactory? I think not—not even to themselves. "All is not gold that glitters." Has "the document which sets forth the justice of their claims" received the sanction and signatures of the whole of the Profession? Certainly not. Is not the article, "binding . . . . to refuse under the sum of 5s.," very like a strike, and open to the same objection? Is not the additional bond "to discountenance and shun," etc., very like rattening? Was this "combination formed for the purpose of maintaining the dignity of the Profession?" Certainly not, if the dignity of the Profession is its duty. Does this 5s. per head "secure to its less favoured members fair-play" and "a just recompense?" Is "such a combination subject for congratulation?" Is it not rather subject for serious thought, and, unless some other less selfish, less commercial, more Professional combination can be suggested, is it not a subject for deep humiliation?

THE TERLING FEVER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your last number you have stated that I have committed "an act of injustice to the majority of the Medical men at Witham," who, you say, "have borne the burden of the epidemic" at Terling, inasmuch as I have affirmed that "Medical aid has been chiefly supplied by Dr. Gimson."

I request your attention to the following facts and figures. I keep a diary, and there can be no doubt of their accuracy. The Medical staff at Witham consists of Surgeon Tomkin and his assistant, Mr. Barron; Surgeon Proctor and his partner, Dr. Gimson. The fever at Terling broke out on December 4 last. Since that time there have been about 275 cases: of this number, 40 have been attended by Mr. Barron; the remaining 235 have been the patients of Mr. Proctor and Dr. Gimson. Again, since December 4 Dr. Gimson has visited the village every day except two, although, of course, he could not see all his cases in one day. Mr. Proctor's engagements apparently prevented him from coming to Terling anything like so often. I am unable to say how many times Mr. Tomkin may have rendered his personal aid, as I have not chanced to meet him in the village since the outbreak of the fever. But his assistant, Mr. Barron, has visited the sick about three days in the week. Am I not correct, then, in affirm-

ing that "Medical aid has been chiefly supplied by Dr. Gimson"—a fact which is abundantly corroborated by Mr. Salter's very able and interesting report in your own journal?

Again, Dr. Gimson was not bound to attend any patients except those who were receiving parish relief, but he has attended gratis many fever patients in Terling who were not receiving such relief. Therefore to that extent his services have been unpaid. Lastly, it was Dr. Gimson who organised the nursing system, the Convalescent Hospital for Children, and the Plank Hospital, and who wrote for the aid of the three ladies from East Grinstead; and therefore I was not incorrect in saying that "to him are mainly due the present useful organisations." From these facts it will be obvious to you that you have 'committed an act of injustice" against me, though, I am sure, unintentionally, and therefore I request you will have the kindness to insert this letter in your next journal.

I am, &c.

Terling Vicarage, March 10. THE VICAR OF TERLING.

"NOW READY."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Please allow me to complain that publishers too often advertise a new book as "now ready" when it is not to be had on order, it being in truth not quite ready. This proceeding has in several instances proved troublesome and disappointing to yours, &c. A COUNTRY READER.

*** The practice you complain of is not necessarily the fault of the publisher, as authors frequently desire that a forthcoming work shall be advertised as "now ready," through their anxiety to see copies in circulation, and also to give notice that a volume is about making its appearance.

COMMUNICATIONS have been received from—

Mr. J. CHATTO; Mr. HUTCHINSON; Dr. HUGHLINGS JACKSON; Dr. LAWSON; Dr. WILKS; Mr. WILLIAM ADAMS; Mr. E. BELLAMY; Dr. BREE; Dr. ROBERT MACNAB; Dr. DOMETT STONE; Dr WALTER DICKSON; Dr. EADON; Dr. BAUMGARTEN; Dr LEFHEBY; Mr A. BRUCE; DINGY; Dr. HYDE SALTER; Mr. WALTER TYRRELL; Dr. SPEEDY; X. P., DERBY; Dr. DUDFIELD, Mr. C. L KEMP; Mr. E. J. SYSON, Mr EDWARD CHAPMAN; THE VICAR OF TERLING; Mr. BAXTER; Mr. G. REED; Mr. E. HART; Dr. HENRY; Mr. WESSELL KILDAL.

BOOKS RECEIVED—

Prichard's Cases of Insanity—Griesinger on Infectious Diseases—Wise's History of Medicine—Report of the Board of Works for the Limehouse District—Glamorgan County Lunatic Asylum Report—Baylis on the Sanitary Condition of Birkenhead—Bouchardat's Annual Abstract.

NEWSPAPERS RECEIVED—

Barnsley Chronicle—Islington Gazette—Medical Press and Circular.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 7, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Mar. 7.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Mar. 7.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2269	1441	1331	57·6	34·6	45·9	0·13	13
Bristol (City)	167487	35·7	133	75	†75	54·7	34·6	45·6	0·81	82
Birmingham (Boro')	352296	47·0	230	171	161	56·3	34·7	45·6	1·05	106
Liverpool (Borough)	500676	98·0	379	290	250	52·4	35·0	44·7	0·91	92
Manchester (City)	360835	81·8	293	208	†211	53·0	33·0	44·5	1·93	195
Salford (Borough)	117162	22·7	88	59	71	52·5	32·9	43·7	1·75	177
Sheffield (Borough)	232362	10·2	159	122	116	55·0	34·4	44·3	1·30	140
Bradford (Borough)	108019	16·4	100	55	58	..	..	..	..	..
Leeds (Borough)	236746	11·0	148	120	91	55·0	33·0	44·7	0·96	97
Hull (Borough)	108269	30·4	92	56	56	55·0	32·0	43·7	1·09	110
Newcstl-on-Tyne, do.	127701	23·9	97	68	60	53·0	35·0	43·3	0·55	56
Edinburgh (City)	177039	10·0	115	85	101	52·7	32·0	42·4	0·80	81
Glasgow (City)	449868	88·9	366	262	252	53·0	29·7	42·9	1·81	188
Dublin (City and some suburbs)	319985	32·8	186	*157	165	58·8	32·0	46·3	0·96	97
Total of 14 large Towns	6391080	34·7	4655	3163	2996	58·8	29·7	44·4	1·09	110
					Week ending Feb. 29.	Week ending Feb. 29.				
Vienna (City)	560000	(1863) ..	..	..	430	..	..	44·6‡	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·750 in. The barometrical reading increased from 29·27 in. at the beginning of the week to 30·09 in. by 9 a.m. on Tuesday, March 3; decreased to 29·48 in. by noon on Thursday, March 5; increased to 29·64 in. by 9 p.m. on Friday; and was 29·18 in. at the end of the week.

The general direction of the wind was W.S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 46·9°.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 7, 1868.

BIRTHS.

Births of Boys, 1187; Girls, 1082; Total, 2269.
Average of 10 corresponding weeks, 1858-67, 2020·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	686	645	1331
Average of the ten years 1858-67	746·3	717·5	1463·8
Average corrected to increased population	..	..	1610
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West	463,388	3	11	1	3	15	6	2	..
North	618,210	8	8	7	1	7	18	1	..
Central	378,058	1	3	..	2	8	6	2	..
East	571,158	5	7	5	..	9	8	..	..
South	773,175	7	10	3	1	22	10	7	..
Total	2,803,989	24	39	16	7	61	48	12	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·750 in.
Mean temperature	45·9
Highest point of thermometer	57·6
Lowest point of thermometer	34·6
Mean dew-point temperature	40·1
General direction of wind	W.S.W.
Whole amount of rain in the week	0·13

APPOINTMENTS FOR THE WEEK.

March 14. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non metallic Elements."

16. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. Andrew Clark, "On Fibrous Phthisis."

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Mr. G. Scharf, "On Historical Portraiture."

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 p.m. Croonian Lectures—Dr. Bence Jones, "On Matter and Force."

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Dr. Fuller, "On the Treatment of Gout, Rheumatism, and Rheumatic Gout."

ROYAL INSTITUTION, 3 p.m. Mr. G. Scharf, "On Historical Portraiture."

20. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 p.m. Croonian Lectures—Dr. Bence Jones, "On Matter and Force."

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

ROYAL INSTITUTION, 8 p.m. Prof. Matthiessen, "On Alloys and their Uses."

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture X.—Part I.

APPLICATIONS OF THE KNOWLEDGE OF THE MECHANISM OF SPONTANEOUS VERSION AND SPONTANEOUS EVOLUTION TO THE PRACTICE OF ARTIFICIAL VERSION AND ARTIFICIAL EVOLUTION. THE BI-POLAR METHOD OF TURNING, HISTORY OF.

From the observation of the spontaneous or accidental changes of position of the fœtus in utero, the transition is natural to the account of those changes which can be effected by art. The observations already referred to prove that the fœtus in utero may, under certain conditions, change its position with remarkable facility. It follows that the judicious application of very moderate forces may, under favourable circumstances, effect similar changes.

We have seen that spontaneous version may be effected by the substitution of the head for the shoulder, and of the pelvic extremity for the shoulder; also that spontaneous evolution may be effected by the descent of the head with the presenting shoulder and arm, or by the descent of the chest and trunk with the presenting shoulder and arm. Now, each of these natural or spontaneous operations for liberating the child may be successfully imitated by art. Let us study the conditions which guide us in the selection of the natural operation we should imitate, and the methods of carrying out our imitations.

A successful imitation of natural version by the head or by the inferior extremity demands the concerted use of both hands. You must act simultaneously upon both poles of the fœtal ovoid. This combined action may be exerted altogether externally—*i. e.*, through the walls of the abdomen—or one hand may work externally, whilst the other works internally through the os uteri. The first method—that practised by Wigand, d'Outrepont, d'Esterlé, and others—has been called the bimanual proper. The second, which has been most clearly taught by Dr. Braxton Hicks, has been called by him combined internal and external version. But the same principle governs both. As I have already said, you must act at the same time upon both poles of the long axis of the fœtus. It would be more correct to describe them both as forms of *the bi-polar method of turning*. It is an accident, not a fundamental difference, if, in one case, it is more convenient to employ the two hands outside; and in another, to employ one hand outside, and the other inside. Each form has its own field of application. We should be greatly crippled, deprived of most useful power, if we were restricted to either form. At the same time, I am of opinion that the combined internal and external bi-polar method has the more extensive applications to practice.

I have found the bi-polar method serviceable, adjuvant in every kind of labour in which it is necessary to change the position of the child. It is true that a rather free mobility of the fœtus in utero is most favourable to success; it is true that the external bi-polar method can hardly avail unless at least a moderate quantity of liquor amnii be still present; it is true that the internal and external bi-polar method requires, in its special uses, if not the presence of liquor amnii, at any rate a uterus not yet closely contracted upon the fœtus. But I am in a position to state that amongst upwards of 150 cases of turning of which I have notes, there was scarcely one in which I did not turn the bi-polar principle to more or less advantage; and in not a few cases of extreme difficulty from spasmodic concentric contraction of the uterus upon the fœtus, with jamming of the shoulder into the pelvis, where other Practitioners had been foiled, I have, by the judicious application of this principle, turned and delivered safely.

The history of the bi-polar method of version, the steps by which this the greatest improvement in the operation has been brought to its actual perfection, deserve to be carefully recorded.

From what has been already said it is clear that Wigand, d'Outrepont, and others who took up Wigand's views, had acquired an accurate perception of the theory of bi-polar turning, and had, moreover, successfully applied that theory in practice. They had applied it to the purpose of altering the position of the child before labour, chiefly by bringing the head over the centre of the pelvis, restoring at the same time the uterus and fœtus from an oblique to a right inclination. This they did generally by external manipulation; but not exclusively, for sometimes one or two fingers introduced into the os uteri served to drag the lower segment or pole of the uterus to a central position, whilst the hand outside acted in the opposite direction upon the upper pole. Here the application seems to have stopped short. At least, I am not aware of any distinct description of the application of the bi-polar principle to produce version.

In one form, indeed, the bi-polar principle of turning by the feet has been in use for a long time. It not uncommonly happens, when turning is attempted after the waters have escaped, and when the uterus has contracted rather closely upon the child, that, even when one or both legs have been seized and brought down, the head will not recede or rise from the pelvis—that is, version does not follow. It then becomes obvious that by some means you must push up the head out of the way. The operation by which this is effected—an exceedingly important one—will be fully explained hereafter. It is enough to say in the present place that it consists in holding down the leg that has been seized, whilst a hand or a crutch introduced into the pelvis pushes up the head and chest. In this operation it will be observed that both hands work below the pubes, whilst in the true bi-polar method one hand works below and inside, and the other above and outside.

In several obstetric works (Moreau, Caseaux, Churchill, etc.) diagrams illustrating the operation of turning are given, representing one hand applied to the fundus uteri outside, and the other seizing the feet inside. But it would be an error to infer that these indicate an appreciation of the principle of bi-polar turning. They simply indicate the principle of *supporting the uterus*, so as to prevent the risk of laceration of the cervix, whilst pushing the hand through the uterus and up towards the fundus. The true bi-polar method does not involve passing the hand through the cervix at all.

The following passage from the late Dr. Edward Rigby ("Library of Medicine," Midwifery, 1844) may be taken as a description of the diagrams referred to:—"In passing the os uteri . . . we must at the same time fix the uterus itself with the other hand, and rather press the fundus downwards against the hand which is now advancing through the os uteri. In every case of turning we should bear in mind the necessity of duly supporting the uterus with the other hand, for we thus not only enable the hand to pass the os uteri with greater ease, but we prevent in great measure the liability there must be to laceration of the vagina from the uterus in all cases where the turning is at all difficult."

The same precept is even more earnestly enforced by Professor Simpson(a):—"Use both your hands," he says, "for the operation of turning. In making this observation, I mean that whilst we have one hand *internally* in the uterus we derive the greatest possible aid in most cases from manipulating the uterus and infant with the other hand placed externally on the surface of the abdomen. Each hand assists the other to a degree which it would not be easy to appreciate except you yourselves were actually performing the operation. It would be extremely difficult, if not impossible, in some cases to effect the operation with the single introduced hand; and in all cases it greatly facilitates the operation. The external hand fixes the uterus and fœtus during the introduction of the internal one; it holds the fœtus *in situ* while we attempt to seize the necessary limbs, *or it assists in moving those parts where required towards the introduced hand*, and it often aids us vastly in promoting the version after we have seized the part which we search for. Indeed, this power of assisting one hand with the other in different steps of the operation of turning forms the principal reason for introducing the left as the operating hand."

Here the consentaneous use of the two hands is well described. But the bi-polar principle is at best but dimly foreshadowed.

Dr. Robert Lee, in his "Clinical Midwifery," relates several cases in which he succeeded in converting a head or shoulder presentation into a pelvic one by introducing one or two fingers only through the os uteri, when, indeed, this part was so little expanded that to introduce the *hand* would have been impossible. These cases were mostly cases of placenta prævia,

(a) Lond. and Ed., Monthly Journal of Med. Science, Feb., 1847.

the fœtus being premature and small. He managed this by gradually pushing the presenting part towards one side of the pelvis until the feet came over the os uteri. Then he seized the feet and delivered. But there is no mention of the simultaneous or concerted use of the other hand outside, so as to aid the version by pressing the lower extremity of the child over the os, or to carry it within reach of the hand inside. It is a manœuvre of limited application. It differs in principle from the bi-polar method, which requires the consentaneous use of both hands, and which enjoys a far wider application.

A process of synthetical reasoning, especially if informed by the light of experience in practice, might construct out of the elements thus contributed by Wigand and his followers, by Rigby, Simpson, and Robert Lee, a complete theory and practice of bi-polar turning in all its applications to podalic as well as to cephalic version. I am conscious myself of having in this manner evolved that theory, and applied it in practice. Dr. Rigby's was the work I had adopted as my guide from the commencement of my career; and my attention was especially directed by Dr. Tyler Smith to the admirable lecture of Professor Simpson, from which the passage above quoted is drawn, at the time of its appearance. Since then I must have turned at least two hundred times. In no case have I failed to observe the precept of using both hands; and gradually I found out that the external hand often did more than the internal one—so much so, indeed, that the introduction of one or two fingers through the os uteri to seize the knee pressed down upon the os by the outside hand was all that was necessary. I feel that I am entitled to say this much, and not a few of my Professional brethren who have honoured me by seeking my assistance can bear witness to the fact that it was by the application of the bi-polar method that I have been enabled to complete deliveries where others had failed.

But, in saying this, I should be sorry indeed if it were interpreted as a desire on my part to detract in any degree from the merit of my colleague, Dr. Braxton Hicks. His claim to originality in working out and expounding the application of the external and internal bi-polar method of podalic version is indisputable. I know of few recent contributions to the practice of obstetrics that possess greater interest or value than his memoirs on "Combined External and Internal Version," published in the *Lancet* in 1860, in the *Obstetrical Transactions*, 1863, and in a special work in 1864.

If the proposition which I have already urged with reference to the forceps be true—namely, that the carrying to the greatest possible perfection of an instrument that saves both mother and child is an object of the highest interest—it is scarcely less true of turning, also a saving operation. I cherish a fervent hope that the exposition of the principles and methods of turning which will be made in the following lectures will, in conjunction with those on the forceps, be the means of materially enlarging the field of application of the two great saving operations, and, as a necessary result, of supplanting, in a corresponding degree, the resort to the revolting operation of craniotomy.

ORATION FOR 1868,

DELIVERED BY

J. BRAXTON HICKS, M.D., F.R.S.,

BEFORE THE HUNTERIAN SOCIETY, ON FEBRUARY 12.

Mr. President and Gentlemen, Probably most of us in our boyhood have watched wave after wave, tide after tide, dash against the rocky shore, and have expected that with all their constant fretting and power the rocks would soon be worn away. But we have been surprised that so little effect has been produced; and even after many years, when we have returned to the spot, we have been astonished to find the rock standing there still, apparently undiminished. Thus is it with us. We are those waves: that rock is the rock of [illegible]. The great [illegible] has [illegible] to break it down. Waves after waves of human intellect roll in from the vast sea, dash on the rock, and then fall back into the tide. Some seem but small; some, majestically towering above the rest, roll in with a force apparently sufficient to overbear all obstacles; but the rock nevertheless stands firm, and, to outward appearance, scarcely altered by the shock by which [illegible]. But look a little closer, examine the waters, not day by day, but year by year, or still better, century by century, and what do we find? Is there no wearing away of the solid mass, no erosion, which, if continued a sufficient time, will level it? Yes; slowly, grain by grain, inch by inch, the softer portions are fretted away; and some day the greater part must fall before the reiterated strokes of the fragile hammer.

Again, gentlemen, our yearly wave has dashed against this rock, and it has fallen broken back into the billows whence it sprang. Without result? Is there no tiny scratch on the surface of our non-knowledge? Doubtless there is; and you can best answer that who have sought faithfully the truth, the whole truth, and nothing but the truth, and in an honest heart have looked for the jewel, content to have found it in any form, not fresh from the lapidary, nor set in gold, but twinkling beneath the rude crust within which it seeks to hide. But I feel sure that our work of the past year has not been in vain. We cannot have met together as we have, anxious to increase our information, with practical minds bent seriously on doing their best to alleviate human suffering, and to assist one another in this divine task, without some fruit, without some erosion at the base of the rock which bars our entrance to the cave of truth.

And now once again, for the forty-third time, this Society meets to mark the commencement of another year of work, of hard, toilsome, but welcome work. One of the objects of these annual orations is to bring us all together, so that by mutual sympathy and encouragement we may find energy to help us forward in that work, and therefore I purpose this evening to allude to some of the obstacles which oppose our endeavours towards progress, as well as to give a few hints how to conquer them.

Let us first consider for a moment what is the object the attainment of which we set before ourselves as students of the *res medicina*—the cure of the various ailments of the body. Doubtless we shall all agree that the first step towards this desirable end is the knowledge of the constitution of our body, and that the more perfectly we study its structure and functions the more surely shall we arrive at the scientific treatment of its maladies. Of course, I am not prepared to deny but that by experimental investigation we may arrive at a considerable knowledge—probably hitherto the most valuable we possess—as to the action of certain medicines, and also to a certain degree of proficiency in the mode of benefiting many abnormal states; but our knowledge derived from this mode differs from that obtained by physiological and pathological information, both structural and chemical, as much as the astronomer who finds a new planet by simply searching the heavens in every direction differs from the intelligent discovery of Neptune by Adams.

The study of physiology, and of course pathology, is one requiring many and various talents. Observe the knowledge required to explain the various functions, and none more necessary than organic chemistry, which, while it is the most difficult and expensive to follow, is the least remunerative pecuniarily, and therefore but few work in it; thus scarcely anything is done in this country in this most important department. And yet, without a full knowledge of the chemistry of the functions in health, how can we arrive at a full comprehension of the conditions involved in the term disease? The more solid changes in structures we may resolve by the microscope; but does that teach us all the changes in disease?

Take the blood for instance. How much can we really say is known accurately of its constitution and of its many changes as it passes through the various organs in health? We find investigators by no means agreed as to the several ingredients said to be found in it, some denying, some affirming. And, how then can we pretend to tell its pathological condition, and how build up any practice or cure upon so unstable a groundwork?

The absence of any united or persistent researches in this direction is a great drawback to the Profession.

Can no means be devised to induce chemists to pursue studies in this direction? Any desultory or spasmodic attempt would be worse than useless. It appears to me that, to be of any use at all, the efforts should be united and continuous.

If any will ask, Is it ever possible to attain to complete knowledge on this or any other branch? to him I would at once answer—never! Can the finite comprehend the infinite to perfection? Then, it may be rejoined, why pursue a phantom? Why follow the *ignis fatuus* merely to fall into the slough of despond? This question does not necessarily follow my answer, never.

Because we cannot reach the utmost peak so as to obtain the complete view, is that any reason why we should not ascend

as high as our strength permit? Are there no beautiful views, no portions of the great horizon visible, which will amply repay the trouble of climbing—some clear, though not entire, glimpses of God's many-sided truth?

Only let us be careful that in our seekings we keep our face toward the top, lest we fall over precipices on the one side, or become locked in some gorge on the other, so that we must wholly retrace our steps before we can again attempt to climb.

I am anxious to have done with the next cause, dismissing the disagreeable subject as early as possible; inasmuch as it savours more of moral than mental weakness. Yet I cannot pass it over, for it much impedes our Profession, more particularly in its application to cure.

I mean that want of honesty, a blinding of truth to suit private ends. I do not so much allude to the prostitution of our Professional knowledge and opportunities to frighten or delude sufferers to submit to treatment remunerative in fees or reputation, because this, though to be utterly trampled under foot whenever and wherever it occurs, is not so much subversive of the truth sought after by students of Medicine as that which within the Profession itself tends to delude those members of it who, not having had sufficient opportunities for following out a question, are led aside by the assurance of one who may be for the time regarded as an authority, but who, having an anxiety to become a figure in the world, puts forth as a new discovery, or as a new theory, something which has no real foundation, though attractive and specious. Some of this kind live upon the reputation derived from a succession of ephemeral theories, which are often most crude, and which they think others may never take the trouble to examine. Thus we obtain a mixture of truth and error, or untruth or unfact, a medley very difficult to unravel. It may be perhaps thought that no serious detriment will result from these attempts. I think the contrary the case, and that they are the most dangerous class of all, especially as they are generally put forth with much noise and assurance. The difficulty in some minds of disbelieving that which they have once received as true is so great, especially as life advances, that, an error of this kind once having crept in, it is a most difficult task to eradicate it. Besides this, to negative that which has been positively affirmed is an arduous task, so that for years an error thus introduced lingers even if it has no vigorous life.

Somewhat akin to this is the want of honesty in making deductions from facts; though this cause does not arise from moral obliquity so much as from mental indolence in a mind that will not take the trouble to think for itself, and this holds true both as regards its judging of the theories of others and of its own original observations Thus we have the frequent exhibition of theories from facts put together anyhow, proving indeed apparently the point, but in reality nothing, under careful analysis. Under this head we may arrange the too frequent mode of employing statistics not only in their application, but in their collection. Dr. Barclay has already shown the fallacy of imperfect statistics, and my able predecessor in this place has also made remarks on this point, with which I entirely agree.

Let me give an instance of this kind. A table much quoted on the mortality of the various operations in midwifery, states that so many deaths occur in delivery by forceps. I referred to the original works from which those data were derived. I found all were taken as in this one I am about to instance. Four deaths were reported in the practice of one obstetrician of celebrity where the forceps had been used, and these four are registered against forceps. Of the four, not one death could fairly be attributed to the use of the instrument. On the contrary. In one case the author remarks that the patient might have been saved had the forceps been employed four days before; in the second, it ought to have been used two days previous; in one it was used for convulsions, the patient dying comatose next day. In the fourth case there was no reason whatever to put the death down as resulting from the use of the instrument. I could show the same incorrectness in tables on placenta prævia did time permit.

If, again, we lump together a quantity of facts having no true parallelism, how is it possible to arrive at a true conclusion, there being really no data for comparison? And yet this is constantly done. I need not add how imperative it is that we start with a true basis for our calculations.

And here it may be remarked that, although with care we may obtain sufficient cases to enable us to form a tolerably accurate average, yet, as a rule for practice, it is doubtful how far this knowledge alone assists us in the treatment of any particular case on hand. Cases are rarely otherwise than in a certain degree exceptional. To treat each one according to the average may be, after all, highly unsuitable for it. A man treating his cases by this guide, may be called a "safe man," and be one who may pass current; but he who is guided principally by averages is certainly only an average Practitioner, and can lay no claim to the thoughtful healer; for it seems that the difference between him and the skilful Physician is, that the latter treats all cases rather as exceptions—the other as all alike.

The want of a logical mind is also a great cause of retardation in knowledge. Not that we need all of us put every question into a logical form on every occasion, but we need all of us to have a habit, natural or acquired, to push a thing fairly to its logical conclusions. We are so apt to stop halfway, afraid of the legitimate conclusion, lest it should prove incompatible with our preconceived notions. It is a great advantage when the examining boards require some evidence of an education of this kind; it would be highly useful if all did so.

The circular mode of argument is a common instance of this want; as, syphilis is cured by iodide of potassium. We have to treat a doubtful disorder. We give the iodide, and the complaint gets well; therefore, the disease was syphilis. Again, nature does a good deal towards limiting disease by plastic lymph. Many of her proceedings are very valuable and conservative; therefore, all her movements after the reception of an injury are salutary. Thus it is argued by some that the enormous diffuse cellular abscesses after a poisoned wound are salutary, and an attempt of nature to throw off the disease. Have we any proof of this? Is it not possible to understand these conditions simply as effects of an injury? A highly irritated state of the fluids ill suited to the proper processes of life, and therefore these results? But to make a logical mind of real use, we must be careful to see that our premises are correct and based on sufficient data. For instance, a person dies of cholera, and he has no excess of purging nor effusion of rice-water evacuations into the bowels. Others, also attacked with cholera, are severely purged, and recover. Therefore, the purging is salutary, for it is found that those who have no purging are more likely to die. Hence it follows that purging carries off the poison, and, as a matter of practice, we should encourage the evacuation of the bowels.

Now, are we sure that we have this right? Are there no other possibilities to be eliminated before we can safely argue? For example, is it not possible that in those severe and frequently fatal cases where there is no purging we have such a severe impression on the vital powers—on the sympathetic—that all the processes are arrested, that no secretion takes place, that the capillary circulation is checked, so that the intensity of the effect of the poison prevents the exhibition of its ordinary symptoms? How many medicines have repute in the supposed cure of one or two cases! How many have become notable upon the mere assertion of one perhaps interested in its sale! and then we, as a Profession, have taken it up, given it, and continue to give it, without being able to say whether we have or have not real belief in its virtue. Is not this the cause why remedies, particularly drugs, have fallen so low in the estimation of many, and yet we go on with faith and without faith at one and the same time, whereas the point can be readily cleared up any day we may take the trouble to investigate. Why should not proper and careful inquiries be carried out by a combination of members of our Profession? What advance can we be said to make when a simple remedy given for six months gains the credit of the cure of a case—when during that time a thousand influences, each much more powerful than the drug, have been in action? Yet the repute of many a remedy depends on such a basis as this. Take, for example, that wonderful purifier of the blood, improver of the complexion, annihilator of eruptions, invaluable alterative and health-restorer—the compound extract of sarsaparilla, given and prescribed by all the Faculty in cases of taint, scrofula, boils, eruptions, cachexia, anæmia, etc.; and yet I will venture to assert that out of ten who have prescribed it largely nine could not say what grounds they had for reposing such confidence in it. And why? Because sarsaparilla was never given in a simple form. It was always given in combination with powerful and well-known remedies, such as liquor hydrargyri bichloridi, the iodides, liquor potassæ, or cinchona. In fact, practically it was made a vehicle for other drugs, and therefore it was impossible to tell its real value. I am not here denying that it has virtues, but it has very seldom been permitted to show its wonderful powers

alone. Everybody prescribed it, and everybody took it as in duty bound; they for the most part recovered, and, notwithstanding the excellent company in which it was exhibited, it obtained the principal credit of the performance. In every prescription, in every advertising-sheet, in every chemist's shop, on boards thirty feet long, richly illustrated with a striking likeness of Dr. Jacobs, no wonder that the drug became fashionable and had such large virtues. But in what repute is it now held? How seldom is it prescribed! Why is this? Why is the Profession so fickle? Either it was wrong to take it up so energetically before it had proved its value, or wrong to put it aside knowing it really has virtues. The fault is to be found in not submitting the simple drug to proper tests before receiving it so confidently, which tests, I submit, have never yet been employed. The same could be said of many other remedies.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE SEASONAL PREVALENCE OF CHOLERA IN MADRAS.

By W. R. CORNISH,
Surgeon, Madras Army.

The town or city of Madras, which is made up of two or three rather densely populated localities, interspersed with small villages and open spaces, stands on the Coromandel coast, and is freely exposed to the sea breezes of the Indian Ocean and Bay of Bengal. It occupies the position of 13° 4′ N. lat. and 80° 14′ E. long, and the area included within the town limits is a strip of coast about seven miles in length by four in breadth. No trustworthy census of the population has yet been taken. Some years ago, it was the fashion to assume the number of the people to be about 720,000, but a recent attempt to take a census has shown that this estimate was much too high. From the results obtained by the municipal authorities in their late investigation of this subject, it may perhaps be fair to assume that the present outside limit of the population is 450,000. The town stands on almost a dead level, no part of it being raised more than twenty feet above the sea, while very considerable areas are scarcely at all above high-water mark. The surface and subsoils are chiefly sandy, or consist of alluvium mixed with sand, and generally overlie a dark blue clay. The drinking water is obtained mostly from wells, which, when sunk into a stratum of pure white sand, yield a tolerably wholesome supply. Where this layer of sand is thinned out or wanting, the water is usually brackish and otherwise impure. Arrangements are now in progress to secure an adequate supply of pure water for the town from a distant source.

As regards temperature and seasons, it is enough to mention that a climate must necessarily be a very warm one where the mean thermometrical readings average 80·6° Fahr. for the whole year. The seasons may be divided into "cold and dry," from December to the end of February; "hot and dry," from March to June; "hot and moist," from July to the middle of October; and "wet," from the middle of October to the middle of December. The highest readings of the thermometer occur in May and June, and on rare occasions these have been noted above 100° Fahr. The minimum temperature occurs in January, and the lowest reading on record, I believe, is 60·6. The mean daily range of temperature is not great. It varies from about ten degrees in the cold season to fifteen or sixteen in May and June.

The following table gives the more noteworthy of the meteorological features of the various months. The means are deduced from the recorded observations in the Madras Observatory for the period 1841—1860.

	Barometer reduced to 32° Fahr.	Mean Temp.	Humidity.	Rainfall. Inches.
January	[illegible]	74·5	75	1·01
February	[illegible]	[illegible]	[illegible]	·32
March	[illegible]	79·9	[illegible]	·87
April	[illegible]	83·5	[illegible]	·81
May	[illegible]	[illegible]	[illegible]	2·92
June	[illegible]	[illegible]	65	2·21
July	[illegible]	[illegible]	[illegible]	2·91
August	[illegible]	[illegible]	[illegible]	3·86
September	[illegible]	82·5	[illegible]	4·28
October	[illegible]	[illegible]	[illegible]	12·95
November	[illegible]	76·8	78	11·80
December	[illegible]	[illegible]	[illegible]	6·11
Yearly Means	[illegible]	[illegible]	71	50·79

With regard to the rainfall in Madras it should be noted that the mean of a series of years gives no sort of indication of the nature of an ordinary season. The rainfall is capricious and uncertain, and varying from 18 to 80 inches in the twelve months. The heaviest downpour usually occurs during the north-east monsoon (October, November, and December), and in this period of the year as many as 18 inches of rain have been known to fall within twenty-four hours. At other times the north-east monsoon clouds have failed to deposit any of their moisture on the Madras coast.

With these preliminary observations I introduce a table of cholera mortality in the town of Madras for the ten years 1855-64, distinguishing the deaths occurring in each month of that period.

Table of Mortality from Cholera in Madras 1855—1864.

Years	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1855 ..	505	351	136	30	14	2	6	45	330	358	207	112	1956
1856 .	107	128	181	132	147	29	12	2	1	3	1	2	805
1857 ..	4	152	161	135	85	126	114	74	117	115	178	169	1378
1858 ..	445	324	126	28	116	92	91	111	128	128	146	240	1965
1859 ..	449	466	139	72	26	10	12	7	6	3	2	8	1082
1860 ..	3	2	2	6	22	87	1218	637	276	169	91	76	2589
1861 ..	35	75	71	150	264	76	186	399	786	446	107	161	2756
1862 ..	425	485	229	102	189	267	126	223	242	501	519	528	3835
1863 ..	175	452	455	134	85	19	5	8	2	46	10	77	1884
1864 ..	133	110	106	45	[illegible]	4	4	97	38	15	9	10	574
	2226	2541	1580	854	880	712	1774	1802	1986	1675	1220	1183	18435

An examination of these figures will show that although cholera is never completely absent from the locality, yet that it has had marked periods of increase and decrease, and that in fact the history of these ten years illustrates a succession of epidemics of cholera rather than seasonal variations in an endemic disease. The beginning of 1855, for instance, may be noted as a period when an epidemic had nearly reached its height. It appears to have died out by the month of June, reappearing in the month of August of the same year, and running on with more or less of virulence until the same period of the following year.

The next epidemic appears to have taken a start in February, 1857. The mortality diminished somewhat in the hot dry months of 1858, but increased again in August, and this second epidemic did not terminate until May or June, 1859. The third, and by far the most violent outburst of cholera, began in May and June, 1860, and continued all through 1861, 1862, and the first five months of 1863. From the latter date to the end of 1864 the disease can hardly be said to have prevailed (except in a few localities of the town) as an epidemic.

The figures in the above table hardly bear out the first of the conclusions at which Dr. John Macpherson has arrived from an examination of the mortality tables of Bombay and Calcutta—viz., "that great heat affords a most favourable condition for the spread of cholera." If the question be limited to the combined effects of heat and moisture, there can be no hesitation whatever in forming an opinion as to the influence of these conditions; but as regards dry heat the evidence of the Madras mortuary tables, if proving anything at all, goes to establish the fact that in the three hottest and driest months of the year—viz., April, May, and June—cholera is always invariably at its minimum. In the next [illegible] I am

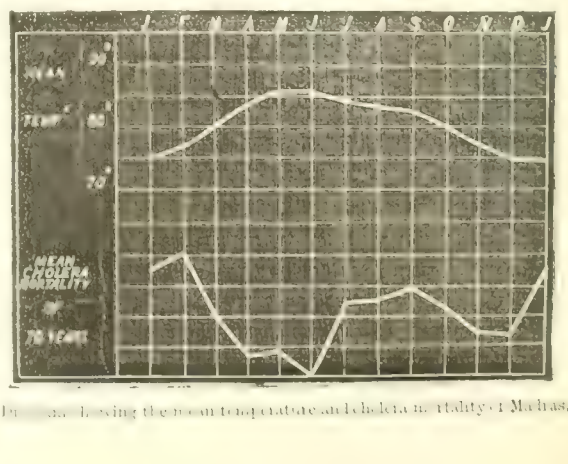

Diagram showing the mean temperature and cholera mortality in Madras.

I have projected wave lines of mean temperature and cholera mortality. A mere glance at these will suffice to show that there is no relation between high temperature *per se*, and the increment of cholera deaths. On the contrary, the very remarkable fact stands out, that the minimum mortality from cholera occurs in the month of June, the hottest and driest period of the whole year.

The period of ten years, on which this cholera table is based, is perhaps too short for the construction of a wave line that shall represent the true mean of mortality. The necessary corrections may be made hereafter, when further data have been accumulated; but here I may mention, what I have frequently pointed out in the annual reports on the causes of death in Madras, that it is not only in cholera that a remarkable decline in the number of casualties takes place during the hot dry months of the year, but that in almost every class of disease there is a decided decrease in the rate of mortality. The heaviest cholera mortality, it will be observed, has been in January and February, two months which constitute the cold dry season of Madras—months in which the mean temperature is almost at its minimum. Next to these, July, August, September, and a part of October, are the worst cholera months. In examining, some years ago, this question of the influence of temperature from the data afforded by the tables up to the end of 1861, I came to the conclusion that September was the worst cholera month, and that the hot and moist months of July, August, and September were peculiarly favourable to the spread of the disease in its epidemic form; later experience has, however, demonstrated the necessity of modifying these conclusions so far as to put February and January in the front rank, as the months in which, for the limited period of ten years, the cholera mortality has been the highest.

Now, if we find that the maximum of deaths from cholera occurs at two distinct periods of the year—one marked by comparatively low temperature, the other by high temperature and moisture combined—and that the minimum of cholera mortality corresponds exactly with the period of greatest heat—if we find all these things to exist at Madras and in other parts of Southern India, while a wholly different connexion between climate and cholera mortality obtains in Bombay, Calcutta, and elsewhere, then, I would submit, a very legitimate field of inquiry is opened up in the consideration of the question whether there is any relation at all between temperature, *per se*, and cholera.

(*To be continued.*)

ON DISINFECTANTS.

By WILLIAM PROCTER, M.D., F.C.S.

(*Concluded from page 285.*)

The antiseptics or colytics are a class which have the power of preventing organic substances from undergoing chemical change, either by arresting catalysis or oxidation, or by preventing other methods of decomposition; but their precise mode of action is in many cases obscure. They disinfect by preservation, and often seem to arrest change as freezing would do. They who advocate the organic character of fermentation and putrefaction, and that the changes are essentially associated with minute organisms, believe that antiseptics prevent the metamorphosis by unfitting the medium to nourish the ferments, whilst the supporters of the chemical theory ascribe the influence of these agents to their action on bodies in a state of change. Whilst an antiseptic preserves from putrefaction, it does not of necessity remove the odour of that which has previously undergone change.

Heat and cold are natural antiseptics. Extreme cold prevents animal poisons from being diffused and oxidised, and restrains putrefaction to proceed anew with increase of temperature. Extreme heat destroys the chemical structure of poisons, and assists the action of oxygen, and in some instances may operate beneficially by producing expansion and consequent dilution. Dr. Henry has shown that dry heat has a powerful destructive influence on specific poisons. Vaccine virus was deprived of the power of reproduction after exposure to a temperature of 140° for three hours; but this was not the case if the temperature did not exceed 120°. He was hence led to suggest the adoption of a similar method for the disinfection of clothes by exposing them to a heat of 212° to 214°, and experience has corroborated the great advantages of this procedure.

The fumes of sulphur are amongst the most ancient disinfectants, held sacred in past ages on account of their wonderful efficacy. Dr. Graham says that sulphurous acid is "preferable to chlorine. No agent checks in so effectual a manner the first development of animal or vegetable life. All animal odours and emanations are effectually and immediately destroyed by it." In addition, it destroys the powerful odour of sulphuretted hydrogen, phosphuretted hydrogen, ammonia, and other such gases, by oxidation, and by its agency ammonia is fixed without loss of antiseptic power. But the value of sulphurous acid is chiefly due to the deoxidising properties which it possesses, and, thus being constituted a powerful colytic and deodoriser, must take a high rank for disinfecting purposes. It is effectual, economical, and readily applied, and of considerable permanence. The great objections presented by it are the poisonous properties of the gas, coupled with its odour.

The combinations of sulphurous acid, the sulphites, of which the alkaline salts are soluble, have been in particular investigated by Dr. Polli. He finds them to possess all the properties of the acid, but with a more certain, uniform, and constant action. When animals to which sulphites had been administered were killed, they were not prone to decomposition, and remained fresh for a very long time. The most putrid blood becomes comparatively innocent when sulphites are added to it, but not inodorous. Perhaps all that is dangerous is removed. The salt goes on acting and gives up all its oxygen, until at last sulphuretted hydrogen escapes. This change takes place more particularly when much liquid is present; therefore the whole must be removed before this action sets in.

Dr. A. Smith and Mr. McDougall have combined the sulphites of lime and magnesia with carbolate of lime, producing a disinfectant equal, if not superior, to any hitherto fabricated, the action being continuous by the liberation of the acids through the operation of the atmosphere. A great cause of disease and discomfort in towns and farms, particularly stables, is the presence of water. McDougall's powder spread on the floor assists in the removal of moisture, and, absorbing the ammonia and phosphates, produces a valuable manure after it has exercised the other beneficial effects. Where fæcal matter of any kind cannot at once be removed, this powder is invaluable, and the inventors propose to disinfect sewers as well as sewage with it. By the application of it to the sewage water the impure liquids pass disinfected through their course, purifying the towns and sewers at the same time.

The value of empyreumatic substances, and their employment as antiseptics, is of remote antiquity, and carbolic acid may be ranked as the most important. The properties now under consideration were first observed in coal tar creosote, which is composed of cresylic and carbolic acid, capable of separation by fractional distillation. They are both highly antiseptic, but the latter is in more general use, and is now prepared in crystalline needles of great purity. A saturated solution destroys plants rapidly; in it fishes and leeches die, and their bodies dry up on exposure to the air without putrefaction; it makes turbid, weak, but not strong solutions of gelatine, and coagulates albumen to a mass soluble in excess of albumen. In such a liquid, flesh becomes hard and shrivelled, and remains in this state for years, without entering into putrefaction, while in very small quantity it destroys animal and vegetable ferments and the lower forms of life. But for these purposes solutions of a certain strength are requisite; if below that standard, the fermentative change is not arrested, One per cent. retards it, one in fifty stays it, but one in 1000 has no effect on the metamorphosis. It is likewise certain that there is a limit to its preservative power; flesh putrefies in a liquid containing one part carbolic acid in 500 of water, but is preserved perfectly in one part to sixty of water. Therefore, in order to obtain the full effect, it is needful to employ a sufficient quantity, and it would appear that such graduated amounts may be applied either to arrest putrefaction and lower organic phenomena, or attack the higher vegetable and animal life. Carbolic acid appears to arrest that motion which takes place in decay, and is therefore a true antiseptic, but it must be admitted that its precise mode of action is unsettled. The power to stay decomposition has been referred to the property of coagulating albumen, yet a solution of such a strength that albumen is not coagulated by it prevents putrefaction, and Mr. Crookes has shown that a solution from which all the albumen was not precipitated by carbolic acid underwent no change. Some singular results noticed by Lemaire ("Abstract of Medical Science," vol.

xliv.) have come out by testing its action on various ferments. Experiments have shown that carbolic acid of sufficient strength to destroy the vinous, acetous, and lactic fermentations does not stay the conversion of starch into sugar by diastase, nor the formation of oil of bitter almonds. It would therefore appear that the acid has no influence on purely chemical ferments, but arrests those fermentations which depend upon the development of organic life; yet Voelcker has shown that the power of rennet to coagulate milk is only materially altered when brought into contact with strong carbolic acid. I have found that carbolic acid destroys the power of vaccine virus. Used out of doors—in yards or other like places—being poured on the ground, even if dilute, vapour is given off, so that the air and soil are disinfected at the same time. Carbolic acid has been extensively employed at Exeter and other places for the disinfection of sewers, and with the best results. But, valuable as it is, this substance does not admit of universal application; moisture has often to be avoided, and the odour precludes its adaptation to many purposes. All practical men admit that it is a great error to employ this antiseptic in a concentrated state. Water dissolves about 4 per cent. of the acid, and this solution will be found sufficiently strong and to work more efficiently. The vapour of the tar acid has great preservative as well as destructive influence on the lower kinds of animal and vegetable life.

Under the term fixative are comprised the metallic salts of iron, zinc, lead, etc., variously combined with sulphuric acid, nitric acid, chlorine, etc. Their action is limited chiefly to the offensive gases of putrefaction, according to the salt employed—*e.g.*, Burnett's fluid (chloride of zinc) operates principally upon sulphide of ammonium, and but little on hydrosulphuric acid, while the perchloride of iron exercises a decomposing influence upon both. Whilst, then, they destroy the ammoniacal and sulphur compounds, a large number of other compounds, offensive and injurious, are confined by neither constituent of the metallic salt, and, moreover, the substance acted on is not endowed with an indisposition to undergo further chemical change; and the gases which they retain being readily separated, their renewal is frequently demanded. Their use seems to be especially indicated in cases where large masses of putrefying matter have to be deodorised for a limited time and at a small cost.

The general character and properties of the disinfectants in ordinary use have been described, with the exception of charcoal, which time has compelled me to omit; and it is the consideration of these properties which would lead to the employment of the agent adapted to fulfil any special purpose for which it may be required, and prevent the adoption of two or more whose operation might be antagonistic or mutually destructive.

The attempt to obtain a disinfectant of general application, and capable of fulfilling all indications, must be attended with disappointment. Directly or indirectly, decomposition of some kind has to be dealt with, and, as in fermentation, the products vary with the nature of the ferment and the fermentable material, coupled with external conditions in relation to air, water, and temperature. Thus, if sugar is taken as the type, it may undergo the vinous, lactic, or other fermentations, according to the conditions to which it is submitted; or with other substances, different results will arise, according to circumstances, and different products will have to be dealt with. Therefore disinfection is not a simple process, but depends upon complicated and varying chemical and physiological actions.

In the chambers of the sick, in addition to the air vitiated by respiration, there are exhalations from the bodies and the effluvia of excretions; we shall have to operate rather upon the evolutions than the sources themselves; and here a disinfectant of a diffusive character, combined with rapid action, will be selected. The oxidising fulfil these indications, and chlorine, used with care and caution and in graduated quantities, is of the highest value, and may often advantageously be replaced by hypochlorite of lime. Waiving the objections to which, as a dense, readily condensable vapour, it is open, iodine seems in some respects to be superior to chlorine; it is manageable, and can be volatilised to any required degree by regulation of the temperature to which it is submitted. By the simple exposure of iodine in a plate or saucer, in the majority of cases, a sufficient quantity of the vapour is diffused to keep the air of the chamber pure. The evolution of ozone by the methods of Drs. Barker and Richardson is also very effective, but [illegible] as readily applied as chlorine or iodine. Mr. Condy proposes to distribute his fluid through the air mixed with the vapour of water, a plan of which I have no experience, and which is apparently open to the objection of an undue diffusion of moisture through the chamber.

In the disinfection of uninhabited places, the peculiar characters of sulphurous acid render it especially applicable and preferable to nitrous fumes. The rooms should be closed, a quantity of sulphur burnt in various places, and the process followed by whitewashing. To remove infection from bedding or wearing apparel, the application of dry heat at a temperature between 200° and 300° Fahr. for a sufficiently long period is perfect and complete. When liquid matter has to be dealt with, reliance will be placed upon the antiseptic and fixative classes to act upon that which may become noxious. For the disinfection of urinals, drains, middens, or sewers, carbolic acid or carbolate of lime takes precedence of others, and produces a substance of high agricultural value, by the retention of the ammonia and phosphates. For alvine discharges carbolic acid is applicable, but on account of the odour, and for other reasons, the sulphate of iron, nitrate of lead (which I prefer), chloride of zinc, or chloride of iron, may with advantage be substituted for it. These latter are especially valuable in removing odours in the rooms of the dead, placed about the corpse.

Generally, then, there are two classes of cases in which disinfectants are needed.

(1.) When the air is impure from causes not under our control, as epidemics or zymotic disease. (2.) When such is the case by causes under our control—such as want of cleanliness, local sources of impurity, etc. In the first case we employ gaseous disinfectants to destroy infection; and, in the second, liquid or solid disinfectants, to prevent the infection passing into the air.

But disinfectants, valuable as they may be properly and judiciously applied, are no substitute for ventilation and cleanliness: in fact, if no other preventives are used, they may be worse than useless, by leading to a confidence which the experience of their employment does not justify. The atmosphere is the great purifier of nature, and an abundant and a continuous supply of air is needed in the chamber or locality of disease to effect oxidation, diffusion, and, therefore, dilution, or removal of noxious matter. Such, carried out assiduously, is the most certain, if not the only certain, means of security against the dangers of infection and disease.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

We believe scirrhus of the bones of the face to be of somewhat rare occurrence, the most usual forms of cancerous disease of the jaws being either epithelial or medullary. In the following case, the mass, although situated near the angle of the jaw, did not apparently involve that portion of the bone. There did not seem to be any infiltration of the cervical glands, and the patient's constitution did not appear to be affected by cachexia; and under such circumstances it was determined to benefit the patient by removing a portion of the inferior maxilla.

During the dissection requisite in the deeper part of the operation, the tissues which were situated about the posterior part of the tumour, had become so thickened and attached to the large veins that, notwithstanding the care and caution observed, a large trunk was cut near its junction with the internal jugular; this hæmorrhage was, however, most promptly stopped.

CANCEROUS TUMOUR OF THE INFERIOR MAXILLA—REMOVAL.

(Under the care of Mr. HANCOCK.)

W. W., aged 62 years, was admitted into the Hospital on October 29, 1867, under the care of Mr. Hancock.

The man says that about five years ago he cut the left angle of his lower lip whilst shaving. The wound never healed, but his lip thickened, and the cut surface became indurated. It did not give him much pain, and he had nothing done for three years. He then went as an out-patient to a London Hospital, and had the affected part excised. Six weeks after the operation he had another tumour removed from under the

chin, which, from his description, appeared to be an enlarged gland. He says that a few weeks after he noticed a small movable tumour under the angle of the jaw on the left side, which did not appear to increase for eighteen months; since which time (three months ago) it has increased rapidly until it has reached its present size.

On admission, the tumour was hard and immovable, situated about the angle of the jaw, extending up to the alveolar margin, and almost to the symphysis. It gave him no pain, but was inconvenient from the tension of the surrounding parts.

On Saturday, November 9, Mr. Hancock removed the tumour by the following operation. Having first drawn up the skin over the jaw, he commenced by making an incision along the lower margin of the bone from the angle to the symphysis, and then, having dissected the muscles from their attachments to the jaw, he passed two bone spatulæ, one near the symphysis, and another behind the angle of the jaw (both inside the mouth). His next step was to saw through the bone over each spatulæ, and so loosen the intervening portion, which, after being separated from the soft parts inside, was removed with the tumour. Smart hæmorrhage took place. Several large veins were in the neighbourhood of the deeper part of the tumour, and one of these was wounded close to the internal jugular, but the hæmorrhage was speedily arrested by ligature. The wound in the skin was then brought together with sutures, and covered with lint and bandage. The man was then put to bed.

10th.—Slept tolerably well during the night. Was ordered low diet, beef-tea, six ounces of wine, and four eggs. The patient complained of a bad taste in the mouth; Mr. Hancock ordered him a gargle of chlorate of potash, and a mixture of hydrochloric acid and chlorate of potash three times a day. Pulse 60; tongue clean. Since which time he has been daily improving, and has slept better every night.

20th.—Mr. Hancock ordered the patient some meat chopped very fine, mixed with gravy, having previously been confined to slops.

22nd.—Has not passed quite such a good night; has been rather feverish during the day.

23rd.—Passed a better night; feels better; the ligatures came away.

He has gone on well ever since. The wound has been occasionally touched with nitrate of silver. When he left the Hospital on December 18, 1867, the wound had nearly healed, and he was able to take food very well.

On examination of the tumour it was found to be cancerous, probably scirrhus; the deeper cervical glands, however, did not at the time of the operation appear to be affected. The disease has unfortunately returned in the jaw and cervical glands (March 16).

STRUMOUS DISEASE OF THE KNEE-JOINT—EXCISION—RECOVERY.

(Under the care of Mr. HANCOCK.)

A. S., aged 9 years, was admitted into the Hospital on March 6, 1867. Four years ago he fell down a grating, and about a month afterwards he complained of pain in the left knee. It began to swell, and became painful in front of the joint. Twelve months after he was taken to a Hospital in London. The limb was put upon a splint; the patient was given cod-liver oil, etc. The knee, however, became gradually larger and more painful. He remained in the Hospital nine months. Twelve months ago he was again admitted into the Hospital for a small abscess which had formed upon his right hand, and which broke; the arm was then put upon a splint; the wound soon healed, and a slight scar only remained. He was then able to use his hand well. Whilst the hand was bad the knee became much better, so much so that he was able to run about, but as soon as his hand got well the knee became again painful and troublesome.

Upon his being admitted into the Hospital in tolerable health, he was found to have a large uniform swelling of the left knee. No discoloration of the skin, the patella but imperfectly felt, and the leg flexed upon the thigh. He complained of pain in the front part of the knee, and unable to put the foot to the ground. He could not bear it to be handled or pressed much. There was a greater amount of swelling on the inner than on the outer side. He had lost flesh lately. On Thursday (March 7) Mr. Hancock excised the knee-joint in the usual way. A small portion of the femur was removed, and, finding that a portion of the tibia was involved, the diseased part of that bone was taken away as well. The cartilages were slightly ulcerated, and the synovial membranes had undergone pulpy degeneration. The limb was then placed upon a splint contrived by Mr. Barwell. It consisted of an inclined plane, with foot, knee-piece, and stand, having a trapdoor in the centre, so that the dressing might be changed without shifting the limb.

The case progressed favourably until the following evening, when he was seized with convulsions, and was insensible. These symptoms continued all night. He was got under the influence of opium, and in the morning was very weak, but rather more conscious. The sutures were taken out, and the wound opened, after which a quantity of coagulated blood escaped. The leg was now placed upon a straight splint, with wooden sides; a kind of box splint, and the wound dressed with carbolic acid, and poultices over the whole knee. The boy was supported with brandy, and ammonia and bark, eggs, wine, etc. After remaining in Hospital for some time, during which time he improved somewhat slowly, he went away into the country, and has since recovered.

FRACTURED RIBS AND SCAPULA — DEATH. GANGRENE OF THE ARM — AMPUTATION — RECOVERY.

The two following cases, being of considerable clinical interest, we give somewhat *in extenso*. In the first the patient, a man aged 60, was admitted under Mr. Hancock's care on December 7, 1867, having met with the following accident:—In unloading a van, a pipe of wine which was suspended from a pulley suddenly swung round and struck him on the chest. When brought in he was suffering somewhat from collapse, his pulse was quick and small, the body cold. On examination the second, third, and fourth ribs were found fractured. He had emphysema, extending up the neck and down the back. He had also a severe fracture of the scapula. A flannel roller was applied to the ribs, the arm was kept to the side, and the elbow supported by means of a bandage. The patient was given some brandy and ordered ammonia and opium, with full diet and beef-tea.

December 8.—Had passed a restless night; complained of a good deal of pain when moved; very little cough, but a slight expectoration; pulse quick. Ordered a belladonna plaster to the side, and pil. cal. gr. ij., opii gr. ss., every four hours.

9th.—Easier; has passed a better night; emphysema has extended slightly; bowels have not been opened. Ordered ol. ricini ʒss.

10th.—Slept pretty well; the bowels have been freely opened; very weak; the expectoration mixed with blood. The dose of calomel reduced to one grain.

11th.—The bowels being too freely open, the calomel and opium was stopped, and he was ordered pulv. Doveri gr. x. every four hours. Still expectorates a little blood; scarcely any cough, and does not complain of much pain.

12th.—The bowels are much better; has some congestion of the lungs. On listening to the chest there was a loss of respiratory murmur over the whole of the left lung; percussion dull; there appeared to be loss of respiratory murmur also on the right side at the lower part and middle of the thorax, evidently caused by fluid contained in the left pleura. He was ordered potassio-tartrate of antimony, with ammonia and opium.

13th. – Better.

14th, morning.—Slept pretty well; still expectorating a little blood; scarcely any cough; not much pain, but felt thirsty; feeling much better. About 6.30 p.m. the nurse came down to say that the patient was taken very bad. He was breathing very short and hurriedly, one side only acting, with occasional gasps. He was ordered a tablespoonful of brandy every half-hour and a sedative draught. He gradually sank, however, and died at 12 p.m.

On making a post-mortem examination, the second, third, fourth, and fifth ribs were fractured each in two places, at the anterior part and at the angles. The sixth rib was fractured at the anterior part. A great quantity of serum mixed with blood was found in the left pleural cavity. The lung had collapsed and shrivelled, and had been perforated by the ribs. The scapula was crushed into seven distinct pieces. (The preparation of the scapula has since been added to the museum.)

The second case was that of a man aged 41, an excavator, who was admitted into the Hospital on October 5, 1867, under Mr. Hancock's care. About a fortnight before admission he had an attack of rheumatic gout, affecting the whole of his right hand and arm. He had suffered at different times from

gout for the last six years. For the purpose of relieving this pain he was advised to rub in some horse oils: this he did. The finger being very much contracted at the time, he was unable to cleanse off the oils thoroughly. After using them for three or four days his hand became very painful—in fact, so much so, that he was unable to get any sleep, and, in the course of a few days, the hand and arm became very much inflamed and swollen. Shortly afterwards he noticed that the tips of his fingers were turning black, and were without any sense of feeling.

On admission, it was found that nearly the whole of the right arm was gangrenous. He was suffering from loss of appetite, delirium; weak, feeble pulse, great thirst, and symptoms of blood-poisoning. He was ordered poultices of linseed meal mixed with Condy's fluid; tinct. ferri muriatis three times a day, and anodyne draughts at bedtime; full diet, beef diet and brandy. Notwithstanding this treatment, mortification extended rapidly; the pulse became weaker; he became more delirious, and constantly bathed in perspiration. These symptoms continued for some days, until about the 21st, when the line of demarcation showed itself a little below the elbow, since which time he became more quiet; appetite better; slept more, and perspired less.

About five weeks after he complained of pain in the legs, especially the left one, which was very much increased when the legs were touched, and he could not even bear the weight of the bedclothes. On examination the big toe of the left foot felt cold, the others were not; and all of a dirty slate colour. Mr. Hancock ordered them to be well covered with cotton wool to keep up the temperature of the foot; this afforded him occasional relief from pain. He continued in this condition till November 19, when an abscess broke on the inner side of his arm, and a great quantity of pus was discharged, the arm feeling very much easier after it.

November 23.—The man complaining of a great deal of pain in the left foot, Mr. Hancock ordered camphor gr. v., opium gr. ½, three times a day.

27th.—The patient still complaining of pain, he was ordered—Tinct. opii ʒj., amm. carb. ʒss., camphoræ ʒss., mist. camp. ad ʒviij. M.; sext. part. 4tis horis sum.

28th.—The pain much easier, and the foot not so blue and cold.

December 5.—The various tissues being quite separated from the living part, Mr. Hancock sawed through the radius and ulna about three inches below the elbow-joint. The stump was then dressed with water dressing. Since the 5th the arm has gone on well, and there is less pain in the foot.

24th.—Still complains of a little pain in the leg. Was ordered potass. bromid. gr. v., decoct. cinch. ʒj., three times a day.

31st.—Wound nearly healed, foot better, general health good. He was discharged convalescent.

(We are indebted to Mr. T. C. Thornicraft, the House-Surgeon, for the above cases.)

Mr. Canton has recently had under his care a man who was the subject of a severe railway accident. There was a compound comminuted fracture of the ankle joint and of the shaft of the tibia for about half of its extent. It was deemed necessary to amputate the limb above the knee, in the lower third of the femur. Mr. Canton remarked that it would seem at first sight somewhat a pity to sacrifice so much of what appeared to be uninjured tissue, but that, from his experience, it was impossible to say how much of these tissues were really uninjured, though to all appearance sound; and were an amputation performed through such tissues, in all probability sloughing of the stump would ensue; and a subsequent dissection of the limb showed how correct the diagnosis had been, for the skin and integuments were generally pulpy, and there were infiltrations of extravasated blood extending above the knee-joint.

Amongst the out-patients under Mr. Barwell's care we lately noticed a case of melon-seed bodies attached to the sheaths of the flexor tendons in the hand and forearm. There was a large swelling in the palm of the hand, and another evidently connected with it, beyond the annular ligament, extending some considerable distance up the forearm. The swelling was very painful, and precluded all use of the hand. Mr. Barwell made free incision into that part of the swelling above the annular ligament, when a large number of these loose cartilages were exposed. Moreover, a large number were found adherent to the surfaces of the sheaths of the tendons, which Mr. Barwell removed by passing his fingers deep down into the wound and detaching them from their bed, in one or two instances with curved scissors. Mr. Barwell directed attention to his mode of operating in these cases as the only one, he believes, which renders the proceeding safe. Previously to making any incision he bound a hard linen pad into the palm, then clasped the fingers over this ball, and bound them in that posture, by this device preventing any admission of air or any flow of blood into the palmar portion of the sheath. By continuing the same mode in the after-dressing he obviated any admixture of pus with the synovia in the palm, and confined the suppuration to the original incision. The wound was dressed with carbolic acid lotion, and is now doing admirably, the man regaining good use of his hand.

In the same Surgeon's practice we saw a fireman who had been severely cut by glass at the burning of Her Majesty's Theatre. The wound was an oblique cut in the forearm, severing the integument and palmaris longus tendon, but not injuring the vessels and nerves. The ensuing cicatrix adhered firmly to the tendons of the flexors and their sheaths, and so much so that the action of flexion was materially impeded. Mr. Barwell subcicatricially divided the adhesions, and recommended the man (to obviate, if possible, a second adhesion) by moving the skin backwards and forwards as frequently as he could over the line of its former attachment. He has been doing so for some days past, and with evident benefit.

We also noticed in Mr. Barwell's practice a case of another wound about four inches long running parallel to, and in front of, the ulna high up in the forearm. When he came under observation, the wound had nearly healed, but there was considerable contraction of the fingers and wrist. All devices for keeping these parts extended were tried, but the lad was so impatient of pain that he kept nothing on long enough to produce much benefit, and therefore, when the wound had healed, it was decided to restore the parts by forcible extension. The condition was as follows:—The wrist was slightly flexed, and the hand drawn inwards. When the wrist was bent, the fingers could be straightened, but if the wrist was extended the fingers curled up into the palm; thus there was produced a singular alternation of tension between fingers and wrist, very characteristic of these cases in which both deep and superficial flexors are affected. When the anæsthetic (bichloride of methylene, which is always used instead of, and much preferred to, chloroform at the Charing-cross Hospital) had taken its full effect, the wrist was first extended; then, while an assistant held it in that position, Mr. Barwell stretched each finger separately. Considerable force was necessary, and at the same time great care lest the first phalanges should become dislocated into the palm. When all had been sufficiently stretched, the hand was placed on a splint of proper form; since that time passive motion has been employed, and the young man has now regained very good use of his hand.

The Vermiform Appendix in a Left Inguinal Hernia.—An old man died with an inguinal tumour on the left side, which had continued in pretty much the same condition for thirty years. At the autopsy the walls of the inguinal canal were found enormously thickened, and midway was imprisoned the vermiform appendix. There was a great deal of serum effused into the abdomen, and the space between the symphysis and the umbilicus was occupied by the cæcum, the cavity of which was much enlarged. It had contracted firm adhesions with the small intestines and with the abdominal wall, bony plates being interspersed amidst these last.—*Ploss' Med. Zeitschrift*, 1867, No. 8.

Arsenic discovered after Burial for Twenty-two Years.—Dr. Steinhäuser relates this occurrence, which recently took place at Waldorf. On the confession of a poisoner, a body was disinterred after being buried nearly twenty-two years. On removing the brittle coffin lid, the bones were found bare, but in their proper connexions, although on being handled they separated from each other. After the ribs were removed, some portions of a brownish, friable, shapeless, somewhat fatty mass were removed by means of a spoon from the cavities of the chest and abdomen. A not inconsiderable quantity of tolerably well-preserved cerebral substance was also removed through the occipital hole. Altogether more than a pound of solid matter was thus obtained, and, carefully tested for arsenic by Marsh's apparatus, it afforded quite distinct, although only slight, traces of its presence. This is the more remarkable, as the cemetery consisted of a very damp soil, so that the graves in wet weather were more or less filled with water.—*Ploss' Zeitschrift*, 1867, No. 8.

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Medical Times and Gazette.

SATURDAY, MARCH 21, 1868.

THE MANAGEMENT OF MEDICAL SOCIETIES.

A very few days after we had published an article on our Medical Societies, the Royal Medical and Chirurgical Society held its annual meeting, and neither the aspect of the Society's rooms nor the proceedings on that occasion appeared to give support to what we had said of the meetings of our societies in general, for the rooms were crowded, and the proceedings were anything but merely formal or cold. But the attraction of the evening was not the reading of a paper on any Professional subject, scientific or practical, nor even the President's address and a desire to do him honour, but the facts that a grievance was to be aired and some complaints to be made. And the House of Commons is by no means the only polite and educated body to the members of which the possibility of a "row" proves eminently attractive. That there was not any "row," all complaints and criticisms being made with great soberness and decorum of language, was much to the credit of the speakers; but the meeting was, as the readers of our reports will have observed, one of very unusual interest, some of the questions raised being of great importance to the welfare of the Society. As we all must desire that the Medical and Chirurgical Society should well and worthily continue to hold its place as the first, the most valuable and eminent, of our Medical societies, it will be well to consider a little carefully some of the faults found with its management before the accusations are quite overwhelmed in the rush and hurry of passing events. The two chief complaints were of faults of omission and of commission in the publication of the *Transactions*. It was alleged—or perhaps we ought, adopting the courteous tone of the evening, rather to say it was suggested—that the volume of *Transactions* last produced is alarmingly large and bulky, that papers of a length and style not at all suited to such a publication are included in it, and that valuable and important papers read before the Society had been injudiciously and unfairly omitted from it. Now, we will first observe that, though the discussion at the Medical and Chirurgical Society affords us the opportunity of offering some remarks on these, and some other, complaints against its management, yet the observations we shall make are not applicable solely, or even especially, to that body. Every one of our societies, and particularly, of course, those which publish volumes of transactions or proceedings, has, more or less deservedly, at times incurred, or is at least obnoxious to the risk of having its harmony and prosperity imperilled by, like or the very same complaints; and they can be avoided only by the most constant and jealous conduct of a society, and by impartial care and judgment in the selection of its Council or managing body.

The size of the last volume of the *Transactions* of the Medical and Chirurgical Society is certainly remarkable. The forty-ninth volume consisted of, omitting the index, 220 pages; the last, the fiftieth, of 643, besides a number of large charts and tables; and some of the papers in it are of great length. Three of them take up together nearly a third of the volume—viz., 200 pages—and if the report of the Hypodermic Committee is added to them, the four occupy 283 pages. It would not, however, be quite fair to count this last among the ordinary papers of the Society, but, omitting it, twenty-three papers fill 560 pages, while in the previous volume seventeen papers were given in 220 pages, very nearly the space required for only three of the papers in the new volume. But if some are disposed to complain of the publication of essays of such length, of papers which cannot have been read to the Society, and to affirm that the *Transactions* were never meant for such productions, something weighty may be said on the other side. No one will dispute the merit of the papers in question; they contain, it may be said, observations and statistics of real value to the advancement of Medical science, and it is of importance that they should be safely recorded; but if they were published separately they would fall almost stillborn from the press, would soon fade out of memory, and be utterly lost; it is well, therefore, that a society should accept them, and, by giving them a place in its *Transactions*, preserve them for use for all time. It would be impossible, we apprehend, to work any rule absolutely limiting the length of papers; this, like many other matters, must be entrusted to the judgment and tact of a council or committee.

The next point that we shall notice is the complaint, or suggestion, of the unfair or injudicious omission of a paper. A Surgical paper, of acknowledged value and importance, had been read before the Society, but was not admitted into the volume of *Transactions*, and the reason for its exclusion appeared to be that the case described in it had been already published in one of the Medical journals, though not by, nor by permission of, the author of the paper. Now, it is, we take it, an established and well-known rule, that no society accepts a paper which has been read elsewhere, or publishes a paper which the author has already in any way published, but it was alleged that this rule was not applicable to the paper in question, and further, that it had not been impartially applied, for that the same volume of *Transactions* contained papers by gentlemen holding office in the Society which had, in large part at least, been published, or publicly read, by them before. On this latter, and very grave, allegation we do not propose to remark further than to note that it was not either denied, justified, or explained, which we must think unfortunate, to say the least. A council cannot be too careful to show the most rigid impartiality in its application of rules, and however a rule may be interpreted, the same interpretation must be applied to all the Fellows of a Society alike, whether office-bearers or not. And though it may be quite true that each member of a council absents himself whenever the question of admitting a paper of his own into the *Transactions* comes on for consideration, and therefore does not directly sit in judgment on a matter affecting himself individually, yet it will certainly be suspected that a council as a body may be tempted to show a little extra tenderness towards its several members.

The point as to whether the rule of exclusion on account of previous publication was justly applied to the excluded paper in question raises considerations of extreme importance. As a broad rule it is undoubtedly right. Great inconvenience and confusion might arise from what we may call a multiple publication of papers and cases, and this should be most carefully guarded against. But, on the other hand, there can be as little doubt that, in these days, such a rule, if carried out in too narrow and rigid a spirit, may be made to work grave injustice and harm. By the liberality of the day the

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wards and operating-theatres of all our Hospitals are, to the great advantage of the public and the Profession, freely open to the Medical press, and interesting cases are constantly reported in the weekly journals, so that they may be seen and studied while still in hospital. But it would surely be very unjust to rule that these reports, made perhaps without the knowledge or permission of the Physician or Surgeon in charge, shall deprive the latter of the power of publishing his cases in detail in the *Transactions* of any of our societies; it would also be disadvantageous to science, for such reports are necessarily more or less incomplete, and are illustrated only by the reporter's experience and learning, not by the Physician's or Surgeon's. The whole question demands very serious and careful consideration, and we may hope for some good result from the President's promise that the Council of the Medical and Chirurgical Society would bear in mind the remarks made on the subject. Whatever rule may be adopted, however, we conceive that something must be left to the discretion of the Council in its application, so that we are again brought face to face with the vast importance of a good and trusty Council. The selection of this body is not, however, so simple and easy a matter as many seem to think. Some would take seniority, pure and simple, as the principle of selection. We do not agree with them. It by no means follows that because a man is a senior member of a society he will therefore make a good and useful councillor, even though he may be an eminent man professionally; and then some men who could do good service as councillors will not, and some who would cannot. Of course, when a rigid rule of seniority is departed from, there arises danger of cliquism and favouritism, but the good to be gained is worth some risk, and a society must be itself in a very dormant state before it will endure any marked cliquism of management. Some mutterings of discontent with the constitution of the Council of the Medico-Chirurgical Society have been heard lately; but it may be doubted whether there is good ground for dissatisfaction. It is perhaps remarkable how large a number proportionately of that body belong to one of the West-end Hospitals, and that the entire Consulting Staff of a special Hospital are on it; but there may be some very good and valid reasons for these facts. With regard to seniority, we cannot see that the advocates of that principle can find much to complain of; for, omitting the Secretaries, there is, we believe, only one member of Council who has not been for at least sixteen years a Fellow of the Society. And we are inclined to think that a more liberal infusion of younger blood would be of great advantage in keeping the managing body more *au courant* with the wants and feelings of the Profession. In this way, perhaps the Society might have been saved from what we are disposed to think the most serious charge that can be brought against its management of late. We mean the existence of the Clinical Society. We hold that the Medical and Chirurgical Society might, and ought, by the appointment of clinical nights or a clinical section, or in some other way, to have made the formation of that new Society unnecessary.

As we remarked at first, we now again say in conclusion, all the matters we have touched on concern all our societies, and we commend them to the consideration of all alike.

THE WEEK.

TOPICS OF THE DAY.

In the month of October last, our contemporary the *Lancet* was good enough to provide the British public and press with an account of the management of the sick poor in the Farnham Workhouse, which disturbed, but certainly did not enliven, the general dulness of the season. The miseries of the syphilitic ward at Farnham; the gloominess of the children's nursery, with its brick floors and without furniture or toys; the cheerless infirm paupers' rooms, "more cheerless than any prison cell of modern construction;" the "rabbit hutches," where a woman on the verge of confinement was locked up all night; the despotism of the late master, who forced an epileptic pauper out of bed to empty the cesspool, into which the man, whilst in a fit, perversely fell, and shortly afterwards died—and numerous other horrors reported by the *Lancet* Commissioners, Drs. Anstie and Stallard—were received with an outcry of indignation which was certainly, the allegations being accepted, not unmerited. The guardians of the Farnham Union, however, indignantly denied the truth of the charges brought against themselves and the management of the workhouse, and loudly demanded a trial. It will be remembered that an inquiry was accordingly instituted by the Poor-law Board, and was conducted by Mr. John Lambert, the Poor-law Inspector, and Dr. Edward Smith, the Medical officer of the Board. Counsel were employed both by the *Lancet* and the guardians, and the investigation occupied no less than thirteen days. At the time we warned our readers against accepting the very imperfect accounts of the evidence that appeared in some of the daily papers, in which it seemed that everything which was advanced by witnesses in favour of the management of the workhouse was most carefully omitted. The reports of the local papers, however, which gave both sides of the question, produced such a feeling in favour of the guardians that 600 of the ratepayers, headed by the Bishop of Winchester, signed an address expressing confidence in their administration. Now, however, for the first time, the general public will learn the facts of the case. The report of the Inspectors, together with the depositions of the witnesses and the letter addressed by the Poor-law Board to the guardians, have been published by order of Parliament. We hope to return to a consideration of this very important document of the "Workhouse Reform" period; but we may state that most of the principal charges are disproved wholly or in part by the evidence. There are clearly great faults in the original construction of the Farnham Workhouse; the ventilation and drainage require improving, and a more liberal supply of towels and furniture in the wards is needed. But the Poor-law Board, in their letter to the guardians, "think it right to state that they observe with satisfaction that some of the most serious charges have been disproved, whilst others are shown to be exaggerated." They terminate their letter by remarking "that some of the more serious charges disproved at the inquiry appear to have been founded upon information given by Dr. Powell, the Medical officer of the workhouse, for which there was no adequate authority, and the Board express their strong disapproval of his conduct in regard to those misrepresentations." The calm dispassionate tone of the report will, we think, relieve the very painful feeling which has been prevalent that the sick poor at Farnham were treated, to use the warm language of the *Lancet* Commissioners, in a "Pandemonium." The evidence, indeed, must convince any impartial reader that they were at least as well off as many of the poorest class of ratepayers throughout the Kingdom.

According to the *Scotsman* of Saturday last, the Edinburgh University Court are thinking of opposing the clause of the Scottish Reform Bill which, if passed, will admit the St. Andrews Medical graduates to the University franchise. The Court are of opinion that the admission of a thousand members to the General Council of St. Andrews, "who have not necessarily studied in any university," would seriously compromise the interests of the University of Edinburgh in the event of its being united with the University of St. Andrews in returning a member to Parliament. We certainly do not know how the political interests of one large body of educated men can be compromised by being linked with another large body of educated men—for that the St. Andrews graduates are educated their degrees prove—in the same constituency, unless it could be shown that the two bodies are antagonistic in

political views. If the possession of an Edinburgh degree made a man a Tory, and the possession of a St. Andrews degree made a man a Whig, there would be some force in the argument; but as it is not so, the whole thing seems like mere jealousy of the graduates of a once rival University. The argument that the St. Andrews graduates have not necessarily studied in any University is worth nothing in the face of the precedent of the University of London. We notice that Mr. Baxter, M.P., has given notice of a proposal to give but one member to the four Scottish Universities. Should his proposal be adopted, the interests of the University of Edinburgh will be more seriously compromised than by the admission of a large number of members of a learned profession to vote with them. We sincerely hope that the authorities of the University of Edinburgh will not persevere in a course which appears to us unworthy and illiberal.

We stated last week that Mr. Erasmus Wilson, Mr. Spencer Wells, and Mr. Luther Holden were "possible candidates" at the coming election of Members of Council of the College of Surgeons. We may now add that Mr. Erasmus Wilson has decided to stand, and that steps have been taken for bringing forward Mr. Simon and Mr. Bowman. As these two Honorary Fellows stand on the list immediately above Mr. Spencer Wells, it is not probable that this gentleman will come forward this year. Besides these, the names of Mr. Birkett, Mr. John Gay, and Mr. G. L. Cooper have been mentioned. Mr. Bowman, as one of the leading ophthalmologists of Europe and an eminent physiologist, will certainly secure a very large number of supporters. Mr. Simon, should he determine on allowing himself to be nominated, in addition to the support he would receive on account of his scientific and official claims, would carry with him the good wishes of a large body of Medical education reformers. Mr. Birkett and Mr. Gay have both the claims of well-known Surgeons who have worked well and successfully for the advancement of their art. Mr. G. L. Cooper is one of the senior Fellows of the College, and has been for between twenty and thirty years Surgeon to an important metropolitan Dispensary. But it would be premature to marshal the candidates and weigh their merits at present. Long before July some names may be scratched and others added to the list.

Dr. Alexander Silver has been elected, without opposition, Assistant-Physician to the Charing-cross Hospital. The Chair of Botany at this Hospital is still vacant.

It is understood that the Bill which Lord Devon is about to introduce into Parliament during the present session for the reform of provincial workhouses will not propose any very sweeping changes. We see that the Workhouse Infirmaries Association intend to press on the Poor-law Board the propriety of appointing technically skilled Inspectors for the country workhouses, but it is said that the Board are not at present prepared to carry out such a suggestion.

The Metropolitan Asylum District Board have approved of Leavensden Woodside, Herts, and Caterham as situations for erecting asylums for the insane poor under Mr. Hardy's Bill. A committee appointed by the Board have recommended a design by Mr. Giles for the building at Leavensden. The estimated price is £66,700. The first premium has been awarded to Mr. Giles, a second to Mr. A. Wilson, and a third to Mr. F. H. Pownall.

An important report has been sent to the Senate of the University of Cambridge by the Syndicate appointed to consider the case of students whose means are insufficient to meet the expenses of College life. It is proposed to admit students who may not be members of any College or Hostel, and to allow them to reside in lodgings licensed by the lodging-house Syndicate. An officer is to be appointed by the University, who is to be called a Censor, who is to superintend the non-collegiate students, admitting them as members of the University on the production of proper certificates, and maintaining good order and obedience to academical regulations amongst them. The non-collegiate students are to be admitted to the ordinary degrees, and will have to pay small fees to the University chest at the commencement of each term of residence. We hope that the proposal will meet with favour from the Senate, as it may be a great boon to many students of Medicine who are at present prevented from studying at Cambridge by the slenderness of their means.

The proposal of the Government to grant a charter and to subsidise the Roman Catholic University in Ireland seems likely to be rejected by the House of Commons. Abstractedly, there is no doubt that it would be a just measure. The Government, it is understood, only intended to pay the expenses of the University in the same manner as the expenses of the University of London are now defrayed from the public purse. If the Roman Catholics wish a University education, it is argued that they can already obtain it in the Queen's University in Ireland. But there is no doubt that the opposition offered by their Church deters many from availing themselves of this institution. The real objection to the Government scheme we take to be that it is considered totally inadequate as a means of dealing with the political difficulties of the country. As Mr. Disraeli has declared that endowment is not contemplated, and that even Government assistance to meet the necessary expenses is a secondary consideration, we cannot conceive that under other circumstances Parliament would object to grant a charter to an educational institution which would receive support from the Roman Catholic clergy and from a large part of the laity.

The Surgical evidence given at the trial of "Captain" Mackay, at the Cork Assizes, for the murder of the police-constable Casey, has led to a good deal of remark and, as it seems to us, unjust criticism. According to the evidence of Dr. Hobart, Assistant-Surgeon to the Cork Northern Infirmary, when Casey was first seen there was considerable swelling in the neighbourhood of the knee-joint, extending above and below it, and a small wound at the back of the joint. Careful examination with a probe and by the fingers completely failed to discover the bullet. The limb was dressed and bandaged, and the knee-joint irrigated. Under this treatment the patient appeared to improve until about the tenth day, when pyæmia set in, and he sank on the fourth day from the commencement of pyæmic symptoms. The post-mortem revealed the bullet lodged in the substance of the thigh-bone, inside the external lateral ligament of the knee-joint. The defence laid great stress upon the fact that the bullet was not discovered during life, and attributed the man's death to maltreatment. It came out in cross-examination that there were no special instruments for extracting bullets in the Northern Infirmary, and the counsel for the prisoner made much of this fact, which has also been remarked on by the correspondent of the *Times*. It will be clear, however, to Surgeons that the success of any attempts at extraction must have depended upon the discovery of the ball. The treatment pursued was no doubt the only treatment which, under the circumstances, could have been adopted, and the attack of pyæmia was an accident, but for which Casey would probably have recovered. The judge, Mr. Justice O'Hagan, in his summing up, told the jury that "from the evidence there was no reasonable question for them that the treatment the deceased was submitted to was not fair and reasonable," and, even had it been proved that there was any neglect or maltreatment, still the wound would have been the cause of death, and the person who inflicted it was answerable at the bar of justice.

One of those motiveless murders which form the battle-ground for Medical and legal jurists has lately been reported from Banwell, in Somersetshire. The murderer, a young man named Holmes, of good family, the son of a colonel in the army, but who had been subject to fits, and had given other

evidence of nervous disorder, had been residing with a small farmer, whom he assisted by working about the farm, and who received £20 a year for his maintenance. On the morning of the murder Holmes hid his tools and made his escape, and as he walked along the road he saw a boy working in a field. He went up to him, struck him over the head with a stick, and then cut his throat. After the murder he went to Banwell, where a police-constable lived, and gave himself up. He said he was obliged to do it, as he had wanted to kill some one for two or three days past. The Surgeon who examined the prisoner said that he conversed rationally on all subjects, and although he appeared of weak intellect, he believed him to be responsible for his conduct. The prisoner said that his father had talked of putting him in a lunatic asylum, and he wished he had done so, as he should not then have committed the crime. On the face of it the case bears the aspect of homicidal mania.

The case of Sympson *v.* Rudgard, lately tried at Lincoln, affords a telling example of the ingratitude which Medical men sometimes meet, even from patients in good circumstances. Mr. Sympson, Surgeon to the Lincoln County Hospital, brought an action to recover the sum of £50 5s. 6d. for attendance on the defendant's family. The bill was disputed on the ground of malpractice on the part of Mr. Sympson, who had submitted the defendant's child, when apparently dead from spasm of the glottis, to a stream of cold water poured on its head. The child recovered, but the defendant did not like the treatment which saved the child's life, and sent for another Practitioner. He afterwards refused to pay the plaintiff's bill in full. Several Medical men of eminence, amongst whom was Dr. Hillier, of the Children's Hospital, were in court to prove that the plan of treatment pursued by Mr. Sympson was perfectly right, and the counsel for the defendant ultimately stated that he could not resist a verdict for the plaintiff. The case seems to have excited great interest. Many ladies were in court, and the verdict was received with applause. The case, as one of resisting payment because a successful plan of treatment was adopted, is, we think, unique, and certainly does credit to the originality of the defence.

Fever is still rife in Mauritius. It prevails at Port Louis and the south of the island.

The case of Webb *v.* Mackenzie, tried at Stafford on March 12, was an action between two Medical men for libel, and turned upon mistaken identity. The defendant, a Medical man at Cheadle, brought a charge against the plaintiff, who is Surgeon to the Cheadle Union, that he had neglected a woman, named Mary Goodwin, who, the defendant alleged, had died from bed-sores, aggravated by improper treatment. The body was exhumed, and an inquest held, when the jury found that death had taken place from natural causes, and there was no ground for the imputation of neglect. The Poor-law Board also held an inquiry, and came to the same conclusion. It turned out that Mr. Mackenzie had seen a woman of weak intellect, named Mary Goodwin, suffering from bed-sores, in the Cheadle Union. On learning the death of Mary Goodwin, he came to the conclusion that she must be the person he had seen, and that the bed-sores had hastened her death. He, therefore, procured the inquiry, and promulgated the statements complained of. Whereas it appears that there were two Mary Goodwins in the Cheadle Union, and the one seen by Mr. Mackenzie is now alive in the County Lunatic Asylum. In the sequel Mr. Mackenzie, under the Judge's direction, withdrew the charges made against Mr. Webb, apologised, and consented to a verdict for the plaintiff with forty shillings damages. The moral of this story is sufficiently patent. When will Medical men learn that it is their interest to be specially careful of the good name of other members of the Profession? and that any charge, especially a mistaken one, brought against a Professional brother, involves *pro tanto* the reputation of the whole body to which he belongs?

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

The two orders of the Crustacea which remain to be described are the Trilobita and the Copepoda. The Trilobita have, for a very long time, been extinct; they are found only in the palæozoic period. Their abundance in palæozoic rocks is perfectly marvellous, and they appear to have formed the larger part of the animal population of the globe at that time. They are named from the division of the cephalo-thorax into three portions or lobes. They have large eyes, one on each side. There are, however, marked differences between these animals and all existing arthropoda. In the first place, the head is divided by sutures into three separable pieces. This condition is not known in any other crustacean. Another point of difference is the entire absence of any traces of locomotive or maxillary limbs. It is difficult to compare them with any one existing crustacean type, especially from this absence of limbs, but points of resemblance may be traced between them and certain members of two of the groups already described, Merostomata (Limulus) and Edriophthalmia (Erotis), and the group that follows—viz., the Copepoda. The Copepoda are all recent; no fossil forms are found. This is owing probably to their structure being so soft and perishable. The genus Cyclops, or Monoculus, is a familiar example of this order. It is abundant in fresh-water ponds. It has a single eye in the middle of the cephalo-thorax. The body has always less than twenty somites, and the abdomen is devoid of appendages. The antennules play an important part—they serve as oars to propel the body through the water. The antennæ, on the other hand, are much smaller. The posterior thoracic limbs also work like paddles. The nervous system is concentrated around the gullet. Some have a heart, some have none. The alimentary canal is very simple. The male differs from the female in having its antennæ much smaller, and modified to serve as prehensile organs by which it holds on to the female. The eggs of the female are not allowed to float freely in the water, but they are surrounded by a viscous secretion, and retained in two pyriform sacs attached to the margins of the vulva; they remain in these sacs till they are hatched. Their development is very interesting. The embryo leaves the egg as a little oval body with a single eye spot and three pairs of limbs. This little animal was originally called a Nauplius, and this has now become a general name for larvæ of this kind; hence the term Nauplius-like larva.

There are certain other forms of *fixed* crustaceans, which are parasites. They present very diversified forms of degradation, but they are all closely related to the Copepoda. Such are the so-called fishlice, of which Argulus is a common genus. This is just like a copepod, except that it has two of its limbs modified into suckers, and its antennæ furnished with hooks. It is often found parasitic on the pike. Some adhere to the eyes and gills of fish. They all suck the blood. There is one peculiar worm-like form, the Lernæocera, found on the gills of the cod. The head in this genus is developed into singular ramified processes. It has two characteristics which associate it with the Copepoda. One is that the female possesses the peculiar egg-bags of this order, and the other is that the male is very much smaller than the female. In one genus the male is relatively a mere speck attached to a little process at the margin of the vulva. The larva is a Nauplius. All these are modifications of the copepodous type.

THE MEDICAL TEACHERS' ASSOCIATION.

At the meeting of the Medical Teachers' Association held on Monday last, a resolution was proposed by Dr. John Ogle, and seconded by Dr. Sibson, to the effect "That it is desirable that the out-patient department of Hospitals should be systematically utilised in clinical instruction, and that a committee be appointed to draw up a scheme for the purpose, with a view to its being considered by the Association." In the discussion

which followed several gentlemen took part, and from their remarks we learned, with much pleasure, that very great attention is now being directed to this subject at most of the Medical schools; and although we cannot think that the report of the Committee can reasonably suggest any plan by which *uniformity* in the methods adopted can be produced—a result of which we much doubt the desirability—yet the ventilation of the subject may do much good, especially in enabling teachers to overcome the obstructions to clinical study sometimes interposed by the governing bodies of our various institutions. The different plans adopted in different schools were ably summed up by Mr. Power under three heads:—

1. Demonstration of each case by the teacher before all the students collectively.

2. Subdivision of the students into groups, to each of which are assigned a limited number of cases, which are to be examined, reported upon, and treated by them, subject to the supervision of the Medical officer in charge.

3. Classification of the patients, and the careful consideration of the various symptoms of each disease as exhibited in each group, with the diagnosis and appropriate treatment.

From the opinions expressed by the various speakers, it appeared that each system had its advocates, but that the first was best adapted to Surgical cases, where it is not always safe to leave the diagnosis and treatment in the hands of students, especially where the latter is not without risk, as in cases of stricture; that the second was best adapted to Medical cases, which are always very numerous, and frequently very monotonous, and require to be selected; that the third was well suited for special departments, as the ophthalmic, etc., where it is always easy to obtain several cases of the same kind which may be compared together and made the subject of a clinical lecture. The Committee consisted of nine members, containing a representative from each of the united Medical schools. When this question had been disposed of, Mr. Rivington, in a somewhat long but very fluent address, entered into the entire subject of Medical education, and proposed a series of resolutions, each of which might well have been considered sufficient for an ordinary debate. Much that he proposed was admirable in theory, and may be one day available in practice; but at present we think it would be impossible for the Medical Teachers' Association to take action upon some of the questions under consideration—a proceeding which would place them in antagonism with the Medical Council, and with the various licensing bodies. The subject is, however, to come on for discussion at an adjourned meeting on Monday next, when we hope that a much larger meeting than the last will give it all the careful consideration it so well merits.

VENTILATION OF SEWERS.

It is pleasant to find that the Metropolitan Board of Works is not quite deaf to counsel, and that our many comments on the unsatisfactory condition of our sewers have at length aroused the body to a sense of its duties. The report which was recently made by Dr. W. Allen Miller on the ventilation of sewers has been published by the Board, and contains much interesting matter. One of the points to which Dr. Miller has desired to direct special attention is that relating to the effects of introducing charcoal in the sewer traps, and on this branch of the subject the researches conducted have been elaborate and conclusive. There are several minor problems involved in the inquiry which Dr. Miller has solved in detail, and which we may lay before our readers *seriatim*. First, it was necessary to inquire whether placing charcoal in the sewers injuriously impedes the ventilation. This was determined in two ways—by comparing the rapidity of the air currents before and after the introduction of the charcoal, and by the effect of the charcoal on the chemical constitution of the air. The experiments on the air currents certainly showed that the charcoal produced retardation of the stream, but this was to so trifling an extent as to be inappreciable. The chemical filtering effect of the charcoal on the foul air was more decidedly demonstrated. "It was ascertained by direct trial that air passed freely through the charcoal in the traps, but no sewer odour was ever perceived in the escaping air, though, if the box of charcoal were purposely removed from the ventilating shaft, an immediate and powerful odour of sewage was perceived." The charcoal did not appear to be directly injurious to the air within the sewer; but Dr. Miller thinks it might indirectly render the sewer air foul by retaining it within the sewer for a greater length of time than usual, and thus causing it to give up a greater quantity of its oxygen. Chemical examinations were made of the sewer air, both before and after the introduction of the charcoal, and the result—an average of eighteen experiments—proved that the charcoal does not materially influence the amount of oxygen or carbonic acid present. Indeed, in one instance the carbonic acid was found to be less after than before the introduction of the charcoal, but this fact Dr. Miller attributes—and we think very justly—to diminution of external temperature. The second point in the investigation was the frequency with which the charcoal will require to be changed in the ventilators. This is a practical question of no mean import. As yet it is difficult to reply to it satisfactorily, seeing that sufficient time has not elapsed since the commencement of the investigation to allow of the solution of the problem. So far as the evidence goes, however, it tends to demonstrate that the charcoal will maintain its powers unaltered for a considerable length of time. Here is the record of Dr. Miller's research:—

"I examined some of the charcoal which had been in the Park-street ventilator [the lowest point in the sewer from Avenue-road] for six months. It contained nearly one-fourth of its weight of moisture, but seemed as though dry when handled. One hundred parts of the damp charcoal gave off when heated 19·7 parts of water, and a small quantity of an offensive ammoniacal liquid. . . . The lower part of the charcoal was clean, and although saturated with condensed moisture it *still effectually purified* the air from the sewer, which, as direct trial proved, passed freely through the layer."

The third point on which Dr. Miller's researches were conducted referred to the mechanical arrangements, and upon this he has expressed but a qualified opinion. We have quoted enough, however, to show our readers what grave importance attaches to the subject of sewer ventilation, and how thoroughly and scientifically Professor Miller has dealt with a somewhat novel, difficult, and disagreeable investigation.

FROM ABROAD.—BERLIN MORTALITY RETURNS—M. DUMAS ON CHEMICAL NOMENCLATURE.

Geh. Med. Rath. Müller has just issued his report on the mortality of Berlin for 1866. This, in consequence of the prevalence of cholera, considerably exceeded that of 1865 and former years, amounting to 27,102, as compared with 21,907 in 1865—the deaths rising from 3·38 per 100 inhabitants during the former year to 4·11 in the latter. In 1865, too, there were 110 births to 100 deaths, and in 1866 only 101 to 100. The male deaths surpassed the female as 51 to 49 per cent., but in 1865 they did so as 53·5 to 46·5. The difference arose from the cholera, of which more females than males died. The effects of age were also somewhat different to the ordinary course. Taking the year 1865, which was about an average normal year, as a comparison, while fewer deaths occurred under 5 years of age (viz., 501 in 1866, and 577 in 1865), between the years 20 and 70 the numbers increased (381 in 1866, and 297 in 1865), and especially between 30 and 40, when they were 90 in 1866, and 63 in 1865. The *causes* of

death during 1866 were pretty much in their usual proportion, with the exception of the cholera, to which 5475 deaths were attributed, almost accounting for the excess of mortality (6145) which 1866 exhibited over 1865. We may specify a few of the causes of death in this mortality of 27,102:—Born dead, 1288; puerperal fever, 135; pertussis, 283; variola, 215, scarlatina, 264; measles, 162; infantile diarrhœa and cholera, 2572; diphtheritic angina, 220; croup, 119; eclampsia of children, 1585; pneumonia, 873; pulmonary tuberculosis, 2452; organic disease of the brain, 237; apoplexy, 861; marasmus, 1453; dentition, 282. There were 153 suicides—126 occurring in males, and 27 in females. The forms of seeking death adopted were hanging, by 66 males and 10 females; shooting, by 36 males; poisoning, by 11 males and 9 females; drowning, by 4 males and 6 females; charcoal vapour, by 1 male and 2 females; cut-throat, by 6 males; crushing on railway, by 1 male; and opening an artery, by 1 male. There were also 230 deaths from accidental causes.

M. Dumas, the new Secretary of the Académie des Sciences, administered a reproof, at the last meeting, to those engaged in his own branch of science, which has surely been long needed. Having read over the list of presentations, he came to one on organic chemistry with such a tremendously long compound name, or rather tissue of compound names, that he declined all attempts at spelling it, and entered the following protest against the practice that gives rise to such verbal monstrosities:—

"If every one of us took the fancy of combining with his name that of his great-grandfather, of his grandfather, of his father, and his mother, a singular complication would be found in our registers of births. A lifetime would be passed in learning the names of the persons with whom we were acquainted in our own neighbourhood. As to knowing the names of the inhabitants of a town, that would be an utter impossibility. This is, however, what our *savants* who pursue organic chemistry have to accomplish, so that their language has now arrived at a point of barbarism that cannot be surpassed. Now, would it not be desirable, in all points of view, to adopt a generic word, and to group around such word the names of species in proportion as science extends her conquests? I am particularly interested in organic chemistry, but I declare that time is entirely wanting to me to peruse, while comprehending them, the various memoirs on the science which come under my notice. The complication and insupportable length of the names employed are the sole causes of this."

We have all suffered from this abuse without daring to expose our "ignorance" by protesting against it. But now we have on our side the voice of one of the most distinguished chemists of the age, himself long a famous professor of organic chemistry, and one whose scientific ardour, love of work, and rapidity of perception continue unabated, and who thinks it a hard case that his time, so valuable for his various scientific and public labours, should be frittered away in deciphering needless puzzles.

PARLIAMENTARY—BABY FARMING—ROMAN CATHOLIC UNIVERSITY FOR IRELAND—BOSPHORUS SANITARY REGULATIONS—THE MEDICAL OFFICER OF THE PRIVY COUNCIL—CONTAGIOUS DISEASES ACT.

On Thursday, March 12,

In answer to a question put by Mr. Vanderbyl in reference to the accounts of "baby farming" published in the *British Medical Journal*, Mr. Hardy said that if such a state of things really existed, it was a great disgrace to any community. At the same time, the things stated were offences against the present law, and he did not know that it was the duty of the Home Secretary to put the law into operation, as persons connected with the district would do. It was a matter for the police, and the police had their attention called to it. But, as the hon. gentleman must know, it was almost impossible to obtain evidence in regard to transactions of that kind.

Mr. Fawcett asked the Chief Secretary for Ireland whether he would promise that the Government would not advise Her Majesty to grant a charter to the proposed Catholic University in Ireland until Parliament had had an opportunity of expressing its approval or disapproval of the scheme, by either granting or refusing the public money which it was stated the establishment of such a university would require.

The Earl of Mayo replied that the desire of the Government was to act altogether in concert with Parliament on this question, and they would take care, before any steps were taken in the matter, to give the House by some means the opportunity of expressing an opinion on the subject. He would avail himself of this opportunity to correct an erroneous impression which appeared to have been formed in respect to the statement he made the other night. It seemed generally supposed that he had said that the institution which the Government proposed to found did not resemble any institution in the United Kingdom. He said exactly the reverse, and that it did resemble to a great extent similar institutions in the United Kingdom, but that it bore no resemblance whatever to the Roman Catholic University now existing in Dublin.

On Tuesday, March 17,

Sir J. C. Jervoise asked the Secretary of State for Foreign Affairs whether he had any explanation to give on a late order of the Turkish Government, whereby sailing vessels passing through the Bosphorus from ports affected with cholera were exposed to a great aggravation of the difficulties of navigation between the Black Sea and Mediterranean; and whether (in the absence of the report of the Cholera Congress, 1866) that of the British Cholera Commissioners would be forthwith distributed.

Lord Stanley: I suppose the order referred to by the hon. member's question was one by which it has become necessary for sailing vessels passing through the Bosphorus to be towed by a steamship, whether they come with a clean or a foul bill of health. I do not think the House would thank me for going into details upon that question. But I may say that the Board of Health at Constantinople had proposed to dispense with this necessity in certain cases. And Her Majesty's Government, together with those of some other Powers, have remonstrated against the indiscriminate enforcement of a rule which appears to us needlessly severe, and in favour of the more mitigated and moderate view taken by the Board of Health. However, the matter is still under discussion at Constantinople, and no result has yet been arrived at. In reply to the second part of the question, I have to state that there is no collective report of the Cholera Congress, but the report of the British Cholera Commissioners will appear with other papers relating to the same subject.

Sir J. C. Jervoise asked the Vice-President of the Committee of Council on Education whether his attention had been directed to the fact that the report of the Medical Officer of the Privy Council, dated March 31, 1867, was not distributed till the second week in September; and whether the report for 1868 would be accessible to members of Parliament and the public at an early period of the present Session.

Lord R. Montagu replied that the report of the Medical Officer of the Privy Council must be laid on the table of the House on April 14 of every year—that was to say, fourteen days after it had been presented to the Privy Council. Last year the printing of the appendix, which was large and contained many maps, was unavoidably delayed. This year, however, he hoped that it would be in the hands of members immediately after the Easter recess.

Major Dickson asked the Secretary of State for War whether it was his intention to extend the Contagious Diseases Act of 1866 to Dover.

Sir J. Pakington: It is not my intention to extend that Act to Dover or any other town until proper Hospital accommodation is provided. Perhaps, however, it may be satisfactory to my hon. friend to learn that a Hospital will be provided at Dover in the month of May next.

Sir J. Pakington also obtained leave to bring in a Bill to amend the Contagious Diseases Act of 1866.

Metropolitan Association of Medical Officers of Health.—The next meeting will be held this evening, at half-past seven o'clock, at the Scottish Corporation Hall, Crane-court, Fleet-street. Dr. Letheby will read a paper (which, from want of time, he was unable to do at the last meeting), "On the Cholera Epidemic of 1866 contrasted with former Epidemics of the Disease, and an examination of the question whether the water supply had any connexion with the disease."

"OUR" MODERN MEDICAL PRACTICE.

By Dr. LIONEL S. BEALE, F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital.

"Are the Practitioners of the present day equal in sagacity and judgment to those of the past?" is a question which would be answered very differently by different persons. That we are less positive, less dogmatic, less pretentious as regards our powers of curing than the most successful of our predecessors, will probably be allowed by all. If we have little or no confidence in remedies and plans of treatment which our predecessors implicitly relied on, surely we know much more of the action of some remedies, and use them more judiciously, than they did. The rising generation fails to understand how it was that Practitioners formerly acted upon principles of treatment which were based not only on the most careless observation, but oftentimes upon theories so shallow that a little painstaking inquiry would have upset them. The strange pertinacity with which in former days a practice was continued long after the principles on which it was supposed to rest had been completely overthrown, has certainly astonished us.

We may learn from the acts and theories of our predecessors a most important lesson; but in our anxiety not to fall into their error of trusting too much to remedies, let us be careful not to fall into the opposite extreme of not trusting at all, and of acting as if no facts or principles had been established by the experience of the generation of Practitioners now passing away. It seems to me that some of our seniors, who late in life have felt it necessary to renounce certain doctrines which they formerly believed in, are desirous not only to prevent us from falling into their errors, but want us to believe and confess that we have no principles whatever, new or old, to guide us in the treatment of disease. They seem to think that because one set of Practitioners extolled one method of treatment without reason, and another the opposite, it would be wiser for us to leave disease to take its own course. We hear men in high authority deploring the uselessness of remedies, and almost vying with one another in candid confessions of "our" helplessness to arrest disease. By others, again, it is suggested that we cannot know anything concerning the real value of treatment until we have learnt something about *the natural history* of disease. To gain this important information a certain number of patients suffering from this or that disease are to be placed in beds and treated with water; another series with this remedy; another series with that. The results are to be carefully tabulated, and it is confidently expected that by this course we shall be able to demonstrate which remedies do harm, which are innocuous, and which useful. One almost doubts if this has been suggested in sober earnestness. It looks more like the idea of some speculative philosopher who desired to enjoy a joke at the expense of persons who plume themselves upon being eminently practical, and upon the great value of their experience. It would be absurd to attempt to carry such an experiment into practice. Exact reliable results could only be gained from such a method of inquiry if every individual composing the series were of the same age, sex, temperament, and weight. All should have been brought up under similar circumstances—have been exposed to similar conditions—taken the same kinds of food, and in precisely the same quantity.

But some of those who are so anxious not to disguise the utter mistrust they now have of old methods of treatment, and would have us believe that our practice is uncertain, random, and haphazard, exhibit a strange determination to persist in old methods of studying disease, and manifest an indifference to change of any kind. They oppose new investigation, ignore modern work, and seem to take pleasure in asserting that the careful research of modern times has taught us nothing concerning the practical treatment of disease. Although they have seen treatment completely changed, they will not admit that sick people are treated better in these days than they were formerly. Their favourite dogmas have been found wanting, and therefore nothing remains but to confess utter helplessness to cope with disease. They try one thing, and then another, and consider themselves lucky if they do no harm. All minute investigation is useless, because those who prosecute it have failed to discover a remedy for incurable disorders. It is useless and unpractical to study further the nature of disease—we know enough about that. All that is worth knowing is how to cure it, and the only way of ascertaining this is to do nothing in so many cases, to give this drug in so many more, and that in a like number. In short, what we are to do is first to confess we know nothing, and then to set about trying an impossible experiment for the purpose of finding out the percentage of recoveries or deaths when nothing was done or when drugs were given. And yet it must be obvious to any one that such information would not help us in the least degree to decide how any particular patient should be treated in order to give him the best chance of getting well. If one man suffered from only one disorder at a time, and the course of that was not influenced by temperament, mode of living, worldly circumstances, and a hundred other things, there would be some hope from such a method of inquiry could it be practically carried out. But, as things are, the method is at fault, and it is most unfair in any one to speak of this as if it were the method pursued by teachers in England in these days.

Many of us who teach now were ourselves taught a totally different method—a method thoroughly practical, and one that advances in usefulness as knowledge increases. Those who adopt this method have thorough faith in real work. Far from teaching that anatomical, pathological, or any other department of Medical inquiry is sufficiently well known, this school aims at unceasing development, and endeavours to profit by every kind of scientific work. Those who grow old in service desire that their places may be filled with new workers; they believe in progress, and prepare for it. The followers of this method try to find out in what points the sick man they are about to prescribe for differs from a man in perfect health, and, if they find that certain organs are acting in greater or less degree than in health, adopt measures, often grounded upon well-ascertained physiological principles, for restoring healthy action. But before this method can be put in practice the practitioner or student must be well grounded in minute anatomy and physiology, and must be intimately acquainted with the nature of the minute changes taking place in health and disease. It is this method which, although much studied during the last thirty years or more, and practised by individuals here and on the Continent, is nevertheless as yet very little taught. By some men very high in our Profession physiological work is actually discouraged, and included among those studies which are said to be unpractical and of little value to those who are to spend their lives in practical Professional work. Before modern workers and thinkers and teachers are condemned, their views ought to be fairly and impartially considered and discussed. This can never be done by those who have little respect for modern work, and no sympathy whatever with the workers themselves. Let those who find fault with existing practice only contrast it with the practice of thirty or forty years ago. Will any one venture to affirm that, for instance, patients suffering from pneumonia are not treated far more judiciously than formerly? or that our treatment is not based upon well-ascertained principles, arrived at from careful investigation of the disease? In these days we consider the general state of the patient, and give sudorifics, diuretics, purgatives, and support, according to individual requirements, instead of proceeding to cut short the disease by assisting the lancet with tartarised antimony and calomel!

The training which would make men earnest thoughtful Practitioners, and help them to acquire sound judgment and discretion, so much required in managing the complex changes in disease, is rendered impossible for the great body of students by certain of our Medical corporations. Confessing the failure of old methods of Medical thought and study, they obstinately persist in ignoring to the utmost the claims of new ones. Alarmed at the dreadful prospects of over-education, and anxious to protect the lives of the public from the injudicious treatment of the over-educated Practitioner, they are careful to support a very low standard of examination. The student is not to be confused with modern science. His examination must be conducted so that he may be able to grind up all that is required in about three months, and thus become a thoroughly practical man, fit to treat the poor without being confused with the doctrines and speculations of modern theorists. He must exhibit laudable ignorance of healthy and diseased structure. It is important that he should know nothing of that absurd and terribly theoretical specialty,

ophthalmology, and should of course be ignorant of the Medical examination of patients.(a) So long as a state of things so disgraceful is allowed to continue, it is hopeless to think that any fair estimate will be formed of the value of modern work. And who are the supporters of this miserable system? Is not the determination upon the part of many at the head of the Profession to discourage students from learning the science and practice of the day in which they live to be deplored?

We are recommended to study the action of medicines by men who never analysed a specimen of urine, never troubled themselves with minute investigation of any kind, and never undertook a scientific inquiry in their lives, who, having no knowledge of these things, have opposed them, and now oppose them, as *unpractical*. But how are we to gain anything of real value concerning the action of medicines unless we can make careful quantitative analyses of the different things passing into and out of the organism of patients under the influence of the drugs; and how can this be done without well-arranged laboratories and work-rooms within our Hospitals? Has not all this been advocated for twenty years or more? Have not many of us worked hard in this direction? Have we not spent time and hard-earned means in the cause, and have we not been looked upon most coldly, and for the most part had our work ignored by some of those who have attained to positions of the highest eminence in the Profession? Because modern work has not achieved that which is impossible, the Profession, and through the Profession the public, are to be prejudiced against modern Medical work, and are informed that our treatment is haphazard and of most questionable utility. This is most unjust, and at best but a poor defence on the part of those who have obstructed progress. Consider what is done in our great Hospitals in these days, and what, but for apathy and opposition on the part of those who have no taste for original inquiry, might have been done. A few earnest words from some influential persons, and laboratories and work-rooms would have sprung up years since in every Hospital, and for the expenditure of a few hundreds a year new work would have been performed, of which the Profession and the country would have reason to be proud. But no! men disinclined to work in the cause of progress easily persuade themselves that progress is unnecessary or injurious, and they are but consistent in doing their utmost to prevent others from working, and in trying to convince those without whose sanction the work could not be done that it is not required. Even while I write, the oft-repeated miserable excuses with which one has been familiar from boyhood repeat themselves:—"All this is very well, but it is not practical; it will not enable us to treat disease any better than we did formerly. It may be of scientific interest, but what is that to us? We want practical doctors who will minister to the wants of the sick, not Medical philosophers;" and, having thus satisfied his conscience that all scientific improvement will only do harm to practical Medicine, and that all such work as that suggested is unpractical nonsense and ought to be put down with a strong hand, the man of great Medical influence falls back in his easy chair thoroughly satisfied with himself, and reposes in contented apathy.

It is surely ignorance of modern work, want of appreciation of the real usefulness of scientific study and teaching, and an utter want of sympathy with scientific inquiry bearing on Medicine, that lead men to take a dismal view of the state of Medical knowledge in these days. If a man has persuaded himself that minute anatomy and physiology are not worth learning, that physiological and pathological chemistry and a knowledge of physics have no useful bearing upon Professional work, and that what has been learnt during the last forty years might as well never have been known, he is not likely to take a very hopeful view concerning the progress and prospects of Medicine; and those who think thus, if few in number, are not wanting in power. Many of them, from their great age and high position, necessarily command respect. Their opinion exercises no small influence upon those entering the Profession, for they really control Medical education. Successful in keeping down the standard of examination to what it ought to have been some forty years ago, they exert a powerful influence in impeding the advance of Medical science in this country, and all they can say to encourage the workers and thinkers of this generation may be summed up thus:—"We know very little concerning the treatment of disease, and 'our' practice in these days is haphazard, uncertain, dangerous, and discreditable!" But those who speak thus really know very little about us. They never enter our work-rooms. They do not know how we work and teach in these days, neither do they care to inquire how we ought to work and teach.

(a) The physiological part of the examination at the College of Surgeons amounts to very little, for I find that, of the six written questions, usually not more than two could be considered by any one as physiological. Of the six questions the candidate is only required to answer four, so that he could omit physiology altogether. Physiology is not likely to be studied by pupils when those who teach the subject are permitted to examine. Many of the physiological teachers of London are now under 40. Few of the examiners are under 65, and one recently died, two or three months after his resignation, it is true, at the age of 85.

ON FORCE IN THE ANIMAL BODY.

READ BEFORE THE MEDICAL SOCIETY OF LONDON ON MARCH 16.

By B. W. RICHARDSON, M.D., F.R.S., President.

Propositions.

1. The nervous system is not a centre for the constant liberation of force, but the centre for attraction of force and of resistance.

2. The nervous system is not specially a centre of attraction and resistance for heat, light, mechanical motion, and electricity, but is the centre for all these manifestations of force, and a centre in which they may be transmuted.

3. Force, whether it reach the nervous organism from without, as in the vibrations of air (sound), light, heat, mechanical contact, or electricity; or whether it be liberated in the body, as during the oxidation of carbon, is received or resisted by the nervous organism at every point—in the periphery, in nerve cord, in nerve centre.

4. The nervous organism not only receives force, but retains it, up to a given measure of capacity; it may thus, by analogy, be compared to a magnet, but having a more extended receptivity for the varied manifestations of force. This receptivity satisfied, it resists.

5. By the term *attraction* of the nervous system is meant its power of receptivity of force up to its full capacity for charge; by the term *resistance* is meant the refusal of the charged system to receive more force: thus resistance begins where receptivity ends.

6. The nervous system is charged from two sources of force—internal and external: the first, liberated within the body in the process of oxidation, is the primary force for the sustainment of the whole organic mechanism; the second, including all manifestations coming from the outer world, and directly communicated through the senses, sustains what is called the intellect, or the bond of connexion between the universe and the living animal.

7. The internal primary force, on its liberation in the process of oxidation, becomes either centrifugal or radiant force, which passes from the body, representing the natural animal temperature, and ministers to excretion of fluids; or centripetal force passing to the nervous organism to charge it.

8. The prime conductor of the internal force is the blood: in health the blood exists as an unbroken chain for conduction—not for conduction by mere circulatory motion, but by *direct* conduction, as in the conducting wire of a battery.

9. The nervous system, susceptible of being charged from within and from without, is limited in respect to capacity of receptivity, and this limitation is shown by resistance, which may be general or local.

10. The phenomena of resistance are always exhibited in the structures connected with the part of the nervous system in which the resistance occurs.

11. If the nervous structure in which there is resistance be connected with muscle, the phenomena of resistance will be motion—contraction, or convulsion of muscle.

12. If the nervous structure in which there is resistance be connected with a passive organ, such as skin or membrane, the phenomena of resistance will be heat, with sensation or pain.

13. In both cases the force producing the phenomena is liberated at the point where the phenomena are developed, but is in excess, because of resistance in the nervous matter, and will be transmuted into heat or motion, according to the passivity or activity of the part where the resistance is determined.

14. The nervous system fully charged with force, and in a state of high tension, is acutely resistent; but, imperfectly charged with the internal primary force communicated by the

blood it loses its tension, and may even give up its latent force to the tissues—slowly as in prolonged exhaustion, or rapidly as in syncope from loss of blood.

15. Thus the nervous system, centre of attraction, retainer and regulator of force, resists or supplies as may be demanded; and this not by currents in circuit, but by the balance of resistance and supply.

16. Thus ordinary animal heat is the centrifugal expenditure of force, the charged nervous system offering resistance to further centripetal accumulation; and for the same reason muscular contraction is centrifugal expenditure of force under resistance, and sensation is centrifugal expenditure under resistance.

17. Tension of resistance is essential for all natural actions. If we apply intense heat to a part, we pervert function by intensifying resistance. If we freeze a part, we pervert function, because in the frozen part there is no liberation of force, and therefore no resistance.

18. The resistance of the nervous system controls the liberation of primary force, regulating the contraction of involuntary muscular fibres, of arteries, of capillaries. The action of the iris is typical. Light falling on the retina too intensely meets resistance in the nervous structure, which, operating on the involuntary muscle, causes contraction of the iris, by which the light—the force—is partially cut off and its admission regulated.

19. All phenomena of disease with *excess* of action, local or general, are phenomena indicating undue resistance. The phenomena are—increased motion (convulsion), or increased heat (fever), or increased sensation (pain). These may be induced by excessive liberation of primary force, or by exposure to extreme external force, by exalted conduction of blood, or by change in the nervous structure.

20. All phenomena of disease in which there is *deficient* action, local or general, are phenomena of reduced resistance. This may be due to deficient internal primary force, to imperfect conduction of blood, or to change in the nerve structures.

21. It will be possible in time to construct an instrument to measure resistance in animal bodies with precision. Empirically, this is already attempted, in estimating the animal temperature in acute disease by means of the thermometer.

22. The theory of resistance as above described is entirely in accord with the facts of the reflex theory of the illustrious Marshall Hall; it explains the physics of reflex action.

23. The phenomena of increased resistance may have a general origin, as in stunning by a blow (shock), when intense force imparted to the nervous system causes universal resistance; or the phenomena may have a local origin, as when a part of the body is suddenly removed or destroyed and the circuit of the prime conductor, the blood, is shortened. In such instances the phenomenon of resistance is increased heat.

24. When the nervous system receives so much force as to maintain its *reserve*, and to sustain a mean tension of resistance, there is perfect action; life is inevitable, death impossible.

25. In natural sleep the exhausted nervous system is storing its reserve; when it is fully charged there is resistance and awakening.

26. The aim of a Physician should be so to regulate force as to render life inevitable and death impossible.

THE GULSTONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS, PALL-MALL,

By Dr. HARLEY,

March 4, 6, and 11.

Lecture I.

CONIUM—PHYSIOLOGICAL ACTION AND THERAPEUTICAL USES.

Physiological Action.—Hemlock acts as a depressor of the muscular movements, but the effect is influenced by the state of the muscles, whether they are in action or at rest. If a vigorous adult man take five or six fluid drachms of the succus conii, and then start on a long walk, in half or three-quarters of an hour he experiences a feeling of tiredness, especially in the knees and hamstrings. He may still continue to walk, feeling powerless, with some giddiness and feeling of heaviness over his eyes; in an hour the sense of fatigue has gone off, and in another hour he is as active as ever. If five fluid drachms and a half be taken and he remain at rest, the eyes become first affected—the adjusting function is interfered with—then succeed drowsiness and dilatation of the pupils, then weakness of the legs; he becomes cold, pale, and tottering; the pulse is regular and of undiminished force and volume; there is a diminution of muscular power in every part of the muscular system, and almost paralysis of the hamstrings and levator palpebræ. These symptoms are at their maximum about two hours after taking the dose, and have quite disappeared in three hours and a half. The succus was administered to several persons in doses of from three fluid drachms to one fluid ounce with similar symptoms, but in doses short of three or four fluid drachms there is no appreciable symptom. The action is uniform and invariable in man and in all other animals. There is depression of the motor function of the third nerve, a lazy movement of the eyes, and sometimes strabismus, with imperfect adjustment of the refracting media of the eye, The effects are quite distinct from those of alcohol—the latter acts on the motor system only secondarily, and does not affect the action of conium. The full action of hemlock is a sleep; it is to the corpora striata, the smaller nervous centres, and the whole of the motor tract, just what opium is to the brain—it tranquillises and renovates the whole muscular system. At first it appears to paralyse this, but it is really a tonic, for Dr. Harley administered conium in full doses for months, and found the condition of the body was improved. The action of conium is influenced by the muscular activity more than by the muscular power. The sedentary with abundance of strength are more affected than the delicate but active. A delicate child will often take as much as would reduce some strong men to a tottering condition. Hence the dose of conium must be proportioned to the degree of motor activity of the individual, whether child or adult; in fact, it might almost be said that by conium we may measure the bodily activity of the individual. Hemlock has no pure cerebral effects; the irritability of the spinal cord is diminished; there is no evidence of distinct interference with the sensory functions.

Mode of Action on the System.—In thirteen cases in which it was administered the secretion of urine was in no way altered. By acting on the mixed urine of three cases, both before and after taking the drug, with potash, there was in both mixtures a similar smell of conia; hence it is not eliminated by the kidneys, and could not be detected in the breath or fæces. It has no direct action on the sympathetic, but nutrition is improved. Pain in cancer is diminished, probably from relaxation of muscular fibres, as the division of neighbouring muscular fibres relieves irritable ulcers. A dose of conium which falls far short of physiological effects is of no more use than a dose of two grains of quinine in ague. He attributed the neglect of conium as useless to the administration of too small doses.

Therapeutical Uses.—There was only time to refer to its beneficial action in the convulsive diseases of children. It is pre-eminently a children's remedy. He gave it to a child $1\frac{3}{4}$ year old suffering from laryngismus stridulus and convulsive cough on excitement: he began with twenty minims, then thirty minims, forty minims, and increased it up to two fluid drachms and a half. There was no appreciable effect till he took forty or fifty minims. There was one attack in the first five weeks (previously one in two weeks), and the child completely recovered. In another case there was a complete tetanic condition of the muscles of the feet, with hyperæsthesia, drawing in of thumbs, contraction of hamstrings, etc., in a child $2\frac{3}{4}$ years old; there were tetanic attacks every now and then, lasting from five minutes to several hours. It got better under the use of conium, but, having omitted it for a time, relapsed, but on resuming it completely recovered.

Lecture II.

BELLADONNA—ACTION AND USE.

He administered physiological doses, short of toxical effects, to man, the horse, and the dog. The method usually adopted was subcutaneous injection, and the solution one of sulphate of atropia. To man this was administered in doses varying from $\frac{1}{150}$th to $\frac{1}{60}$th of a grain. The symptoms were more or less delayed and powerful according to the dose, but the sum of its action seemed to be as follows:—After a few minutes there was a rather sudden acceleration of the pulse from twenty beats to double its previous frequency; its volume and force were also augmented; the temperature was increased about 1° F. externally and slightly internally, and there was heaving of the carotids, also giddiness, heaviness or somnolency, nervous delirium and startings; dryness of the tongue, palate, and throat, with huskiness of voice; a dry brown fur on the tongue, which was usually moist at the tip and edges; gradual

and increasing dilatation of the pupils. In two or three hours the dryness of throat and tongue gives way, and there is a very acid viscid secretion, of a fishy odour; then the pulse falls, but the pupils are in their highest state of dilatation. There is no effect on the respiration; occasional sighs and prolonged yawns. After the pulse assumes its ordinary rate the giddiness passes off, and he seems the same as before; but he feels languid, and there is dulness of mind and diminution of vision. Headache during these symptoms or afterwards is rare and exceptional. Desire for food soon returns, but during the action of the drug insalivation or deglutition is impossible. The same accelerating effect on the pulse was observed on giving it by the alimentary canal, and with succus belladonnæ there were exactly the same symptoms, only altered in rapidity.

Conditions interfering with its Action.—1. Children are remarkably insusceptible, and occasionally bear very large doses before cerebral symptoms and dryness of throat are produced. But dilatation of pupil occurs as rapidly in the young as in the old. 2. Among adults some are more susceptible than others: it is doubtful whether pregnancy does not fortify against it. 3. Fixed caustic alkalies decompose the active principle, but only after a time; if taken immediately on mixing, its power is unaffected.

Results of Action and Mode of Elimination.—The kidneys are very active in its elimination from the minute it enters, and in two, or at most three, hours, all is removed. This occurs at all ages and in all conditions of the kidney. It is easily detected by its action on the pupils, and its presence can be easily proved if only $\frac{1}{96}$ grain of sulphate of atropia has been given; as the urine is generally retained, this is useful in a Medico-legal point of view. During the operation of belladonna the amount of urea excreted is increased, and the amount of sulphates and phosphates still more so, while the chlorides are usually diminished. The urine is increased in quantity and specific gravity. There is no increase in the uric acid, but sometimes a diminution. Hence it will be seen that it has a very similar effect to febrile action, perhaps from the same influence upon the sympathetic system, to which it is a powerful stimulant; but if its action is continued sufficiently long, the vaso-motor nerves are paralysed, and dilatation of the vessels occurs. The excessive oxidation required to furnish the phosphoric and sulphuric acids is from the increased activity of oxidation in the lungs. It is a powerful diuretic, and has the same effect on the other glands, not excepting the salivary. The drying of the mucous membrane in the upper part of the respiratory passages, the browning of the tongue, etc., are difficult to explain. The conjunctivæ are sometimes slightly dry, often injected.

Therapeutical Uses.—1. It is a powerful *cardiac stimulant.* There is no other medicine equal to it; hence it is useful in many cases of syncope and cardiac asthenia; $\frac{1}{100}$ grain of the sulphate is generally sufficient. 2. It is *diuretic*, excites the sluggish circulation and torpid kidney. In acute nephritis it calms the nervous irritation and contracts the dilated vessels. In chronic albuminuria it appears to diminish the excretion of albumen. It is a safe medicine in nearly all conditions of the kidney, and tends to keep that organ in a state of healthy excitement. 3. It *promotes oxidation* in the system. Hence it is useful in the uric acid and lactic acid diatheses. If $\frac{1}{60}$ to $\frac{1}{40}$ grain of the sulphate is injected in the neighbourhood of joints affected with rheumatism, the pain is immediately diminished.

How to procure Patients.—Here is an infallible mode, unattended by any expense, as related to us by one of its victims:—A certain Doctor writes a "Treatise on Diseases of ———." Dozens of them are to be found in Paris. A patient arrives, attracted by the renown of the Doctor. "Ah! my friend," says the great man, after a brief examination, "I am sorry to have to tell it you, but within three months you will become impotent." "Impotent!" exclaims the poor devil, and escapes as fast as he can, but he carries the fatal arrow that has been shot with him. Imagination does its work, and a thousand to one but what the prognostic will be realised. Convinced, the patient must get cured, cost what it will, and who can be better to go to than the learned man who so well foresaw what was about to happen? It is to him, therefore, whose impudent lies have caused the mischief, that he resorts ... [illegible]. *Gaz. Méd. de Lyon*, March 8.

REVIEWS.

A Manual of the Diseases of the Skin. By Balmanno Squire, M.B., F.L.S., Surgeon to the West London Dispensary for Diseases of the Skin, etc. London: John Churchill and Sons. 1868.

In his preface Mr. Squire states that his design has been to supply a text-book of such moderate dimensions as would enable it to serve also as a handy book for clinical use. He prefers adhering in the main to the classification of Willan, averring that our knowledge of skin pathology is still insufficient to enable us to propose a better arrangement. There are four "natural orders," however, which he considers have been fairly rescued by the progress of science from Willan's jurisdiction—viz., syphilitic eruptions, sebaceous eruptions, animal-parasite eruptions, and vegetable-parasite eruptions.

In treating of erythema, he advises the establishment of a sub-genus, "rheumatic erythema," advancing reasons for his belief that the erythema nodosum is a rheumatic disease.

Under the heading of erythema simplex special attention is drawn to the very common but rather serious error of mistaking it when it affects the buttocks of children for infantile syphilis. Of psoriasis he has noticed that pregnancy is unfavourable, whereas lactation is favourable, to its development.

In his description of eczema he asserts that this disease is not peculiar to the skin proper, inasmuch as it may extend from the skin of the face to the conjunctiva in the form of granular ophthalmia, and spread from a sore place within the mouth produced by a carious tooth to the skin around the mouth. This is to affirm that some affections of mucous membrane are eczematous, which is highly probable.

Of eczema of the scalp (which is so common a complaint among children) he makes two varieties, the one dependent on constitutional causes, the other on parasitic irritation. The broadest difference between the two is this—that while the "constitutional" variety affects chiefly the anterior half of the scalp, the parasitic (or head-louse) variety occupies chiefly the occipital part, and is generally limited to it. If this be true, a considerable advance has been achieved in skin pathology, since all writers who have previously mentioned the subject of pediculi in connexion with eczema or impetigo of the scalp, profess their inability to decide whether the parasites be the result of the eruption, or the eruption of the parasites, but appear to incline to the opinion that the pediculi are an occasional, but uncertain, issue of the eruption. Mr. Squire's views on the matter are confirmed by the authority of Dr. Hillier, and, if sound, point to an easy way of dealing with a very bulky division of cutaneous diseases.

He gives some new rules for distinguishing eczema of the hands from scabies—a sometimes difficult matter that often has to be decided by the Practitioner, and one that, if rashly pronounced upon, may inflict great discredit on him.

In the treatment of lupus Mr Squire is opposed to cauterisation, except as a *dernier ressort*, and believes that in most cases the disease is capable of cure by the less heroic method of stimulation, and he holds that any addition to the ravages of the disease on the face should be avoided if possible. But here he is on somewhat doubtful ground. We cannot agree that the superficial lupus of the scrofulous at any age should be treated with caustics, but the true lupus exedens, which Mr. Moore calls rodent cancer, demands different treatment.

In the so-called "tertiary," or severer syphilitic eruptions, he recommends the administration of small doses of mercury, and regards the iodide of potassium as of use only as a means of combating *some* of the phenomena of constitutional syphilis—for instance, plastic deposits and neuralgia.

In treating of the diseases of the skin produced by vegetable parasites, he pronounces sycosis to be one of the rarest of eruptions in this country (rarer even than favus)—the disease commonly taken for sycosis being a variety of impetigo affecting the hairy part of the face.

The work is copiously illustrated with coloured plates of the diseases, and with woodcuts of the parasites of the skin.

Any one who is tempted to invest his cash or his time in buying and reading Mr. Squire's book, will find that he is repaid by clear and positive, and therefore satisfactory, information. As to the *rôle* played by lice in the causation of skin disease, Mr. Squire may be right or wrong in his views. Still, his views are positive, and no one would be justified in refusing to act upon them until they shall be disproved by further experience.

FOREIGN CORRESPONDENCE.

LETTER FROM VIENNA.

Ovariotomy at Strasbourg—Quinine in Puerperal Fever—Stricture Dilators—Transfusion of Blood in Puerperal Convulsions—Galvanism in Diabetes—New Treatment of Cancer—Professor Billroth's Use of Acupressure.

VIENNA, March 12.

I HAVE paid a short visit to Strasbourg, Heidelberg, Würzburg, and Munich, and finally reached Vienna a fortnight ago.

At Strasbourg I saw Dr. Kœberlé perform ovariotomy. I never saw an operation more carefully done. Kœberlé compresses the pedicle with strong iron wire pulled very tight by means of a small vice, or "serre-nœud," as he calls it. To prevent the wire from breaking, as it so constantly does in wire-rope écraseurs, he has the mouth of his little serre-nœud (which is shaped very much like an écraseur) widened out like a funnel. I do not think the "serre-nœud," as used by Kœberlé, possesses any great advantage over the clamp as a means of securing the pedicle; only the arrangement for the loop of wire is ingenious, and certainly, in the operation I saw, he used very strong compression without the wire giving way. He has performed ovariotomy sixty-eight times. His mortality is now rather more than one in three.

Professor S., of Strasbourg, told me that he now cures nearly all his cases of puerperal fever by the use of very large doses of quinine. Some persons, however, think he considerably over-estimates the good effects of the quinine, and that the cases that recovered were simply cases of febricula.

At Strasbourg, too, I was told that M. Rigaud invented a stricture-dilator, just the same as Holt's, fifteen years ago. At first Rigaud split the strictures, like Holt, but now he only dilates. I was also informed that, fifteen years ago, M. Bonnet, of Lyons, remedied deformity of the limbs following hip-joint disease by division of tendons and muscles after the plan practised now by Dr. Hingston, of Montreal.

In Heidelberg I saw a woman who had been instantaneously cured of puerperal convulsions by Professor Lange by venesection to 10 oz., followed immediately by the transfusion of 10 oz. of healthy blood from the arm of the clinical assistant, Dr. Vietz. The convulsions commenced during labour, but persisted after delivery, and, indeed, continued so violent that Dr. Lange thought the patient would die in a fit. It was six hours after delivery that the above treatment was resorted to. The urine was intensely albuminous at the time. When I saw the woman, three weeks after delivery, the albumen had entirely disappeared.

I also saw at Heidelberg a man getting rapidly well of diabetes insipidus, of four months' standing, by the use of the continuous galvanic current. The galvanism is passed from the nape of the neck to the sternum, and to the loins, twice a day for two or three minutes. The patient is under the care of Dr. Erb, Dr. Friedreich's first assistant.

Dr. Heine, of Heidelberg, is at present treating a case of cancer of the face with subcutaneous injections of a weak solution of carbolic acid, with apparently good effect. The tumour, a large one, has become reduced to nearly half its original size. The treatment has been going on for two months and a half. No suppuration has taken place, except in the tracks of the syringe. Dr. Heine tells me that for years Dr. Bottini, of Pavia, has been applying carbolic acid—a 10 to 20 per cent. solution—to his amputations and other fresh wounds. Dr. Bottini has published a paper on the subject, entitled "Dell' Acido Feni o," under the "Presso la Società degli Annali Universali" of Milan. The date is 1866.

Have you heard that Professor Billroth—the "second" Professor of Clinical Surgery here—has abandoned the ligature and adopted acupressure? That, I think, is a great triumph for the needle. Billroth is a former assistant of Langenbeck's, a first-rate Surgeon and Pathologist, and a brilliant operator. He has a great reputation in Germany, and has a very large following of students. His success in procuring primary union has not been great as yet, but that, I suppose, will come by-and-by.

WE regret to hear that Dr. R. G. Mayne, of Leeds, died rather suddenly on Sunday morning, the 15th inst. His name must be familiar to our readers as the author of the well-known "Expository Lexicon of Terms in Medical and General Science" and of the "Medical Vocabulary,"

GENERAL CORRESPONDENCE.

"ARSENICAL RASHES."

LETTER FROM DR. TILBURY FOX.

[To the Editor of the Medical Times and Gazette.

SIR,—I was glad to see the letter of Dr. Macnab in your last week's issue. He is perfectly correct in his description of the eruption produced by arsenic. The similarity in the acute form of eruption to measles is undoubted. It is quite unnecessary for the appearance of the rash that the metal be exhibited for any length of time. Some patients are so peculiarly susceptible to its action that a very few doses will suffice to produce the kind of attack described by Dr. Macnab. I do not pin my faith so strongly to the use of arsenic, and therefore do not give it to so great an extent, as is the fashion, but I have recently seen a goodly number of instances of arsenical eruption accompanied by catarrhal symptoms, constituting together a disease like measles. The eruption consequent upon the long-continued action of arsenic is a different affair. I am, &c. TILBURY FOX.

43, Sackville-street, Piccadilly, W., March 14.

LETTER FROM DR. C. HILTON FAGGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The view taken by Dr. Macnab concerning the origin of the exanthematous rash twice observed in my case of psoriasis (reported in your impression of February 29), is one which would naturally suggest itself, and which I should have been the first to adopt, only that it seems to be absolutely contradicted by the facts. During the first twenty-four days of his stay in the Hospital as an in-patient—up to the time when the first exanthem appeared—the man was taking no medicine except the mist. quiniæ. This statement is founded not merely on the report of the case taken by my clinical clerk, but on an examination of the dates recorded on the bed-card, on which the prescriptions were written down at the time. When I copied out the notes for your journal, I took the additional precaution of getting one of the students to visit the man at Greenwich (where he lived), for the purpose of asking whether he had been taking arsenic during the first few weeks after his admission into the Hospital, and of inquiring whether he had had any return of the disease. Of course I do not attach very much importance to the patient's recollection of the medicines he had taken, but the result of the inquiry was entirely to confirm the accuracy of the conclusion derived from other sources, that the rash could not have been caused by arsenic. It is true that I had given the man this medicine some weeks before, when he was an out-patient of mine; but he had ceased to attend some time before he was admitted as an in-patient. Thus a period of considerably more than twenty-four days had elapsed between the time of his ceasing to take arsenic and the appearance of the first exanthem. I am, &c.

C. HILTON FAGGE.

WATER-ANALYSIS.

LETTER FROM MESSRS. J. A. WANKLYN, E. T. CHAPMAN, AND M. H. SMITH.

[To the Editor of the Medical Times and Gazette.

SIR,—We observe that allusion is made to our method of water-analysis in your article on that subject.

It is quite true that much misconception is current respecting our method, and that certain chemists who seem to have misunderstood our paper are unable to make the process work. Other chemists, on the other hand, succeed with it perfectly. Mr. Way, who is perhaps of all English chemists the one best qualified to give an opinion on the value of a method of water-analysis, finds it to answer very well. In our own hands also it works well, and gives strictly concordant results.

We have carefully examined Mr. Dugald Campbell's alleged disproof referred to in your article, and, as will be seen on reference to the *Laboratory*, September 28, 1867, and to the *Journal of the Chemical Society*, December, 1867, have denied his results in the most absolute manner. The epithet "unim-

peachable," as applied to Mr. Dugald Campbell's results, strikes us as open to dispute. We are, &c.

J. Alfred Wanklyn,
Ernest T. Chapman,
Miles H. Smith.

London Institution, March 14.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 25, 1868.

Mr. Samuel Solly, F.R.S., President, in the Chair.

A paper, by Dr. T. Clifford Allbutt, was read on

THE STATE OF THE OPTIC NERVES AND RETINÆ AS SEEN IN THE INSANE.

The author stated that he was first led to examine the eye by the ophthalmoscope in that form of insanity known as general paralysis. He did so in the chance of finding disease in the vessels of the retina resembling that which is described as existing in the blood-vessels of the brain in that disease. This was not the case; but another change—viz., atrophy of the optic nerve—was constantly found. Having thus commenced optic researches among the insane, the author was led to continue them. The considerable proportion of cases in which he found changes more or less great, led him also to think his observations worth publishing. He hoped that by means of the ophthalmoscope one more effort would be made finally to establish the study of insanity upon a positive basis. A lunatic asylum is, in fact, a museum of cerebral diseases; and the direct observation of an offshoot of the brain like the optic nervous apparatus may, in such cases, be most valuable. It may serve not only as a means of decision between "structural" and "functional" disorder, but may also serve as an interpreter of the modes both of structural and of functional changes. For many reasons the author preferred to schedule his cases in accordance with a classification of mental disease rather than according to the supposed origin or nature of lesions. The cases were taken chiefly from those in the West Riding Asylum at Wakefield; some also were taken from the North and East Riding Asylum at Clifton, near York. The author expressed his warm thanks to Dr. Crichton Browne, of the Wakefield Asylum, and also to Dr. Christie, of the York Asylum, for their kind interest and aid in his observations. In all 214 cases were examined. Of those from the two asylums, Dr. Browne and Dr. Christie have furnished the brief diagnostic remarks which are placed upon the schedules. (*a*) *General Paralysis:* Dr. Allbutt examined fifty-three cases. In forty-one of these cases distinct disease of the optic nerve was found, seven are marked as doubtful, and five were normal. He drew the following conclusions from his schedules:—1. That atrophy of the optic disc takes place in nearly every case of general paralysis, and is commonly accompanied by atrophy of the olfactory nerves. 2. That it is not to be distinctly seen until the end of the first stage, as it slowly travels down from the optic centres. 3. That it begins as a pink suffusion of the nerve, without much stasis or exudation, and ends as simple white atrophy. The author likened this process to the so-called "red-and-white softening" in the brain. 4. That the atrophy of the nerve is not in constant proportion to the ataxy of the muscles of the orbit. 5. That it is in relation with the state of the pupil, which is contracted during the early stages, and dilated in the fully atrophic stage. 6. That as the symptom is not a very early one, it probably has not much diagnostic value; its pathological significance is probably considerable. (*b*) *Mania:* Of this disease the author brought forward fifty-one cases. In twenty-five cases symptomatic changes were found with the ophthalmoscope; thirteen cases were noted as doubtful; and thirteen were either healthy, or presented non-symptomatic lesions, such as glaucoma, etc. He made the following propositions:—1. That the ophthalmoscope reveals symptomatic changes in a large number of cases of mania. 2. That these are most common where other symptoms of organic disease exist, and seem not unfrequently to depend upon meningitis. 3. That, after a paroxysm of mania, there remains a paralysis of the blood-vessels in and about the discs, causing obvious hyperæmia. 4. That during the paroxysm there is, perhaps, a spasm of these vessels, as suggested by one case. 5. That the permanent changes are those of stasis, of consecutive atrophy, of simple atrophy, or of a mixed character. (*c*) *Dementia:* Out of 38 cases, the author found marked disease of the optic nerves or retina in 23, he recorded 6 as doubtful, and 9 were healthy. Many of these cases were known to depend upon organic disease, and, like those of mania, were chosen for their severity. In simple acute dementia, however profound, if independent of organic disease, the author thinks no optic changes take place. (*d*, *e*) *Melancholia* and *Monomania* were tabled together for convenience. Of 17 cases, in 3 only was found disease of the eye. Few of these cases depend upon organic disease. Anæmia of the retina was commonly found, however, in melancholia. (*f*) *Insanity depending upon Epilepsy:* Forty-three cases were noted. In 15, disease of the optic nerve or retina was found, 9 were doubtful, and 19 showed no change. Simple epilepsy is not commonly followed by disease of the optic nerve. In most of the cases presenting optic changes, organic disease was known to exist from the other symptoms. (*g*) *Idiocy:* The author had previously noticed amaurosis in idiots. He examined, therefore, 12 cases; and he found marked atrophy of the discs in the large proportion of 5, 1 was changing, and 2 were noted as doubtful. He asked whether this atrophy would be found to depend upon encephalic inflammations in infancy.

The President was glad to hail in Dr. Allbutt a country Fellow whom they were always glad to see, and from whom they were always delighted to receive contributions. He supposed that by grey matter Dr. Allbutt really meant that circumferential portion of the brain which he, for want of a better term, had proposed to call the *hemispherical ganglion*. He considered the introduction of this or some similar term important, as post-mortem records frequently indicated no distinction between the superficial and the deep grey matter of the brain. Another point he considered of interest was the condition Dr. Allbutt described as spasm of the artery, serving as it did to illustrate the able and valuable paper Dr. George Johnson had recently brought before the Society.

Mr. Carter observed that, chancing to be at Gloucester, and with a view to the reading of this paper, he had taken the opportunity of examining the eyes of a few patients in the Asylum there. He was much struck by what he saw, which completely corroborated Dr. Allbutt's views. In eight patients examined only one had normal eyes. In one, a case of dementia, there was pigmentary retinitis, but this, being not uncommon, might have had no connexion with the disease. He saw a case of epilepsy ten minutes after an attack; the discs were pale. In another severe case both were whitened. In all cases of general paralysis, a kind of red softening was going on to white atrophy. Recently he had been watching a case of tubercular meningitis, hoping to obtain some valuable results by ophthalmoscopic observation, but in this he was disappointed.

Dr. Tuke remarked that it would seem ungracious to cast any doubts on such a paper. Still, he thought that certain things should not be overlooked. To take the case of general paralysis, that ordinarily occurred in men over 40, when the sight was beginning to fail, and atrophy likely to be encountered. So, again, the state of the pupil spoken of had really nothing to do with the state of the retina. There was a question as to its bearing on mania; if the mania were acute, then probably there might be congestion; if chronic, the appearances would vary with age and other circumstances. Still, this was the right course of investigation to pursue.

Dr. Leared made some observations on the use of the Turkish bath in congestion of the brain, and stated that the eyes became blanched by its use.

Dr. Allbutt having replied to the remarks which had been made, a second paper, by Drs. Cockle and Hill, was read, being

AN ACCOUNT OF A CASE OF ARABIAN ELEPHANTIASIS SUCCESSFULLY TREATED BY COMPRESSION OF THE FEMORAL ARTERY, AND THE APPLICATION OF THE STARCHED AND SIMPLE BANDAGE.

The patient, Henrietta C., aged 42, by occupation a governess, married, but without issue, was a native of Calcutta. Her parents were respectively of Irish and Dutch extraction. She had formerly enjoyed tolerable health, with the exception of an ulceration of the left leg, which remained open seven years; shortly after her marriage the ulcer healed. In the year 1852 she came to England, and subsequently had

an attack of pain and redness of the right inferior extremity, brought on, she thinks, from cold. This attack was preceded by uneasiness about the groin, but the pain and redness commenced in the foot, extending upwards to the knee and groin. In a few days the entire extremity began to swell, and very severe constitutional disturbance ensued. The swelling never wholly subsided during her sojourn in England. In the year 1854 she returned to India, and (the swelling increasing) cupping, the application of iodine, and bandaging, were successively employed without any beneficial result. During the last fourteen years the limb had been gradually enlarging, and presented the appearance shown in the drawing, when she applied for relief at the Royal Free Hospital on August 16, 1867. Subsequently to her return to India, she had several attacks of ague and fever. On her admission, the general health was good; but locally, besides the enlargement of the limb, the veins were in places tortuous and dilated, and induration existed in the situation of the femoral vein and glands below Poupart's ligament. When the sketch was taken by the artist, on admission, the girth of the calf was 24 inches. After about one week's rest in bed, and before the actual commencement of compression, the authors found the measurement to be 22½ inches. The femoral artery was compressed, at Scarpa's triangle, by means of the horse-shoe tourniquet (at first for a short time, and then permanently), but never to the extent of completely arresting the circulation through the artery. Simultaneously with compression, the limb was at first encased in a starched bandage; later, three simple rollers were used. The reduction of size of the limb, when the compression was permanent, proceeded nearly as rapidly as in cases in which the main trunk had been tied. It is now (Jan. 7th) nearly that of its fellow. During the progress of the case, the tourniquet had to be removed twice—first from tenderness and redness at the point of pressure, and secondly from the occurrence of slight œdema of the foot and ankle.

The patient was also brought under the notice of the Society.

The President asked if there were any indications of a deposit of fibrinous matter in the intestine.

Mr. Cooper remarked that such cases were far from common; he had seen two, one in a woman much like this, with the skin covered by ichthyosis and ulcerated, but whom he had lost sight of. The other was in a syphilitic male of irregular habits; both legs were enlarged and had deep wounds, with extensive necrosis of the tibia.

Dr. C. T. Richardson stated that when, some years ago, he had brought a similar case before the Society, Dr. Webb, who had been in India, said that he had seen much of the disease in Bengal, and that he believed it to be partly of malarious, partly of syphilitic origin.

Mr. Henry Lee said that, to get at the pathology of the disease, it ought to be seen at an early stage. He thought the pain in the groin might give some clue to its origin in this case. There was a tendency in syphilitic patients to deposits in the walls of vessels, portions of which might be carried away by the current of the blood and deposited at a distance, thus giving rise to local disturbance and change.

Dr. Hill, in reply, stated that there was nothing peculiar about the bowels and no history of syphilis, but there was evidence of the veins having been obliterated.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 3, 1868.

J. Simon, Esq., President, in the Chair.

Mr. Bruce read a report on Dr. Church's Cerebral Tumour, which contained no new formation, but consisted of old blood clots confined in a membrane.

Dr. Burdon Sanderson here remarked on the mode of preserving specimens by spirit, which was too commonly adopted, so that the structure of many was destroyed, and said it would be desirable if the Society's instructions were more attended to.

This the President corroborated, and stated that the memorandum circulated gave sufficient instructions.

A report on Dr. Ogle's case of Cancer of the Chest was read by Mr. Moore, who stated that no elements of the thymus gland were present in the tumour.

The President next stated that he had just received a letter from Professor Hallier, of Vienna, on the agency of cryptogamic vegetation in causing disease. Last year he had shown the cholera fungus; he had now succeeded in obtaining fungi in six other diseases—viz., variola, variola ovina, vaccinia, and in the blood of patients labouring under typhus, typhoid, and measles. The investigation had been conducted on an extensive scale.

The President then showed, for Mr. T. Taylor,

A XANTHIC OXIDE CALCULUS,

from the museum of the Royal College of Surgeons. Only a section was in existence, and this was presented by Mr. Bransby Cooper. It was then supposed to be composed of red-tinted uric acid. It had been removed from a child in the Punjaub. It was composed of thin layers, broke with a conchoidal fracture, and had a reddish tint. It contained no uric acid. Its external surface was brown. Only two had been removed since 1817, Langenbeck's and this. No trace now existed of the calculus originally examined by Dr. Marcet in 1817.

Mr. A. Bruce said there were some fragments of a calculus of this kind in the museum at University College. It was suggested that these might be portions of Langenbeck's stone, which was broken into several pieces.

Mr. C. Heath exhibited

A RECURRENT TUMOUR OF THE FACE,

the product of the fourth growth, from a man aged 34. It began as a pimple when the man was aged 17; it gradually increased in size, and was removed by Mr. Le Gros Clark. It again returned, and was removed by Mr. Partridge. This time it projected into the antrum. Four years after it again appeared, and this time the upper jaw was removed, the patient being at the time in America. A portion of the tumour was left, but the patient declined another operation. An abscess formed, which was opened, but the skin did not close, and in this state he came to University College Hospital. The tumour then constituted a large projection into the mouth, blocking up the nostrils and distending the frontal sinus. It was removed without any great difficulty, and the frontal sinus was cleared out by a Langenbeck's speculum. He recovered perfectly, but the day before he was to be brought before the Society he went out, got erysipelas, and died of pyæmia. The mere weight of the brain broke the thin shell of bone separating the brain from the tumour. The tumour appeared to have a thin shell of bone over it, and to contain within it fibrous and osteogenic cells.

Mr. Moore also exhibited a bony tumour in the frontal sinus, much like Mr. Heath's specimen. It probably originated in the septum of the nose being covered by Schneiderian membrane except above and behind. A sort of isthmus connected its anterior and its posterior portions. It appeared to affect the bones with which it came in contact as itself. The case lasted seven years, and came on after a fall on the nose. The patient died of apnœa on the operating table. Its structure was bony, with large cavities filled with gelatinous matter.

Mr. Spencer Watson inquired whether there was any mucous membrane on the tumour shown by Mr. Heath (there was in the natural situations), as he thought they generally were so covered; he also thought that Mr. Heath's case resembled that operated on by Sir W. Fergusson.

Mr. Hulke stated that, having seen both, he would say they were perfectly distinct. There was no cartilage in Sir William's specimen. It was subperiosteal.

Mr. Heath said there was no cartilage in his specimen. Both were referred to Committee.

Mr. Brooke exhibited a

COMPOUND AND COMMINUTED FRACTURE OF THE TIBIA AND FIBULA,

to show what Nature could do in the way of repair. The patient was a man, on whose leg a mass of metal fell, and he tried to save the limb. It was extended on a splint, and after a fortnight it began to do well. Fragments of bone were discharged, and the ends exfoliated. After six months' time the patient incautiously rested his weight on it, which led to inflammation and so much sloughing that it had to be amputated. Two bands or pillars were found uniting the tibia.

Dr. Peacock exhibited two specimens. The first was from a case of

ENDOCARDITIS, LEADING TO DESTRUCTION OF TWO OF THE AORTIC SEGMENTS, WITH AN ULCERATED OPENING INTO THE LEFT AURICLE,

and was removed from a female, aged 23, who died in St. Thomas's Hospital of broncho-pneumonia superinduced upon old disease of the lung. During the whole of the period she was

under treatment she was extremely exhausted, and was only kept alive by the free exhibition of stimulants and support. There was not any distinct murmur, but the action of the heart was irritable, and the sounds, as heard at the base at the later period of her life, were noisy and prolonged. The pulse had a somewhat regurgitant character, but was very feeble. There were also softening clots in the cavities of the heart, and a fibrinous deposit in the spleen had also softened. The specimen was very similar to one previously exhibited to the Society by Mr. Shillitoe, and afforded an example of the mode of production of Rokitansky's acute aneurism.

The second case was one of

EXTREME CONTRACTION OF THE AORTIC ORIFICE.

The valves were united together, much thickened, and firmly ossified, so that the aperture was so contracted that it would only admit of the passage of the end of the little finger. The specimen was removed from a young man 23 years of age, who was never known to suffer from any cardiac symptoms till eight months before his death, when he was refused to be admitted into a benefit society on the ground of his labouring under disease of the heart. He continued at his work, which required the exertion of considerable strength, till four days before his death, when his breathing became seriously affected, and he had palpitation and œdema of the ankles; he died quite suddenly. The left ventricle was very greatly hypertrophied, and of large size; while the right ventricle was small, and its walls not much thickened; the organ weighed 24 oz. The valvular disease was certainly of very old date, probably congenital, and the case afforded an instance of the very large amount of disease which may exist without being productive of any marked symptoms—their absence in this case being doubtless due to the great hypertrophy of the left ventricle.

Dr. Wilson Fox introduced Dr. Milligan to show some amyloid matter prepared after the method of Kühne. It was insoluble in artificial gastric juice, although a proteid, not a hydrocarbon. Its reactions with iodine distinguish two kinds of it, one giving a reddish-brown colour, the other a violet one, the addition of sulphuric acid turning the one violet, the other blue. The former is most common. The specimen shown was removed from a very large fatty liver.

Mr. Reeves showed for Dr. Cayley a

LIVER AFFECTED WITH CHRONIC ATROPHY.

The patient had been healthy to within six weeks of his death. He exhibited the ordinary symptoms of cirrhosis All other organs were healthy, but the liver only weighed 18 or 20 ounces. Glisson's capsule was puckered. There were a few bands in the substance of the organ; its cells were shrivelled. The man said he was abstemious.

Dr. Murchison had a similar case last year.

Dr. Moxon remarked on its curious shape, and asked if there were any attachments to the diaphragm or any syphilitic history.

Dr. Murchison said he had heard of no such history, and that the shape of the liver was different from that of ordinary syphilitic livers.

Mr. T. Smith exhibited a specimen of

I. ACUTE NECROSIS OF THE FEMUR

occurring in a little girl. The thigh, when seen, was much swollen, and had the ordinary characteristics of the disease. An incision down to the bone was made, but no pus flowed—only bloody serum. She died on the ninth day. The bone was separated from everything except its ligaments at the joints. The knee was full of pus, but there was no separation of the epiphysis. She died of pyæmia.

II. THE PARTS AFTER RESECTION OF THE KNEE JOINT,

in a boy 3 years of age, operated on eleven months ago. Life was prolonged till marked bony union had taken place, the line of union not being visible. There was much suppuration, and the thigh was at last amputated, when caries of the bone in an inaccessible situation (under the popliteal) was found.

III. A specimen similar to the former. Resection was performed eight months ago, and the patient recovered, but, there being no bony union three months after, the limb was finally removed, when a loose fibrous material alone was found.

Finally, Mr. Smith showed, for Mr. Paget, a third specimen of the same kind removed eleven months after resection. Locally the parts did well, but there was much suppuration from a central necrosis in the head of the tibia.

Mr. J. Wood exhibited a specimen of an

UMBILICAL HERNIA,

removed from a woman aged 54. The operation for strangulation had been performed. Four years ago the swelling began, but did not give any trouble for two years. At the end of that time a truss was worn, till the parts became tender, so that it had to be left off. Constipation and symptoms of strangulation followed, the intestine being adherent at the umbilicus. A perforation followed, and death from peritonitis, caused by escape of the contents of the gut by an opening just below the protrusion, ensued.

Mr. G. Lawson exhibited an eye in which there was a

REMARKABLE DEVELOPMENT OF CYSTS IN THE RETINA.

He had removed it from a patient in the Royal London Ophthalmic Hospital, Moorfields, under the following circumstances:—The man had received, fifteen years previously, a penetrating wound in the right eye, which, in the course of twelve months, led to complete loss of vision. Up to last November the blind eye had never caused him any discomfort, when, without any apparent cause, it became inflamed and painful, and in a few weeks the sight of the sound eye was affected by it. As all treatment failed to give relief, he was in January of this year admitted into the Hospital, and Mr. Lawson removed the eye. At the time of his admission the eye was glaucomatous, its tension was greatly increased, and it was very painful. The lens was milky white and chalky, so that no ophthalmoscopic examination could be made. On making a section of the eye, the optic nerve was seen deeply cupped; the retina was *in situ*, but slightly detached from the choroid, and its outer surface was studded with numerous small cysts (eleven in number), the largest of which were about the size of a small pea.

Mr. Hulke remarked on the great interest of the case. The cysts were not spaces in the connective tissue; they had a wall of their own, and an internal epithelium, as in the iritic cysts he had described.

Dr. Hilton Fagge showed some gallstones passed after having caused intestinal obstruction. Sometimes these proved fatal, especially to females; probably these had escaped by ulceration into the colon instead of the duodenum. They consisted for the most part of cholesterine.

NEW REMEDIES.

NATURAL BROMO-IODINE WATER, OF THE WOODHALL SPA, LINCOLNSHIRE.

(*Ingram and Co., Buckhersbury; Best and Sons, Henrietta-street, Mayo, Watson, and Co., Berners-street*)

We have long known this water by repute, and are glad to find that it is added to the list of the London wholesale dealers in mineral waters. Of course, no water is tested to the greatest advantage away from its natural source; yet many Practitioners will be glad to be able to try this on patients at home. When, in the course of a chronic disease of rheumatic or gouty origin, the ordinary remedies produce no marked effect, and it is evident that a somewhat long course of diet and regimen is requisite to restore the patient to health, then such a water as this, containing some of the subtlest remedies in gentlest doses, may be prescribed with advantage. The water is beautifully bright, pleasant to the taste, and light on the stomach, and does not depress the appetite. The analysis of Mr. West, of Leeds, shows that it contains a large quantity of chloride of sodium, with a relatively large quantity of iodide and bromide. The chloride of calcium also figures rather largely, and it is unnecessary to remind the Practitioner of the ancient repute of this last salt as a remedy for scrofulous and other tumours. Atonic gout and rheumatism, tertiary syphilis, and tumours of the scrofulous and fibro-plastic varieties, are amongst the complaints for which resort may be made to Woodhall with every prospect of relief. But we venture to add two suggestions—one is for the evaporation of the water, and the use of the salt in the solid form at meals, instead of common table salt; the other is the expediency of trying the water or the salt, or both, in epilepsy, for there are reasons for expecting a good result from such an experiment.

Clinical Society.—The following subjects will be brought before the next meeting of the Clinical Society, March 27:—Rheumatic Arthritis, Motor Asynergy, Acupressure, Tracheotomy in Laryngeal Disease, Calomel Vapour-bath for Syphilitic Albuminuria, and Congenital Affection of Heart.

NEW BOOKS, WITH SHORT CRITIQUES.

The Vaccination Act, 1867. With Introduction, Notes, and Index. Second Edition. By Algernon C. Banke, Esq., of the Poor-law Board. Pp. 76.

*** The necessity for a second edition of this work appears to have enabled the author to add much additional information arising out of the working of the Act, and to present the statute in a very complete form. It contains, in addition to the previous matter, copies of all the documents relating to vaccination recently issued by the Poor-law Board, the Lords of the Privy Council, and the Registrar-General, together with notes to the several sections, settling many doubtful points. If only for the "Instructions to Vaccinators under Contract," this little book must be of value to all engaged in public vaccination.

Catalogue of the Pathological Museum of St. George's Hospital. Edited by John W. Ogle, M.D., F.R.C.P., and Timothy Holmes, F.R.C.S. London: Wertheimer and Co., Finsbury-circus. Pp. 356.

*** This most laborious and valuable work furnishes a complete key to the treasures of the Pathological Museum of St. George's Hospital. It was begun originally by the late Mr. Gray, whose death caused considerable delay consequent upon a rearrangement and simplification of the plan of the work. The present editors have included notices of all recent additions to the museum. Each preparation is described, with such a clinical account as is necessary to elucidate it, and with references to the sources, published or MS., whence further information may be derived.

The Indigenous Drugs of India. By Baboo Kanay Loll Dey, Graduate of the Medical College, and Teacher of Practical Chemistry, Medical College, Calcutta, etc. Calcutta: Thacker, Spink, and Co. Pp. 113.

*** It is highly desirable that we should acquire some additional knowledge as to the indigenous drugs of India, and Baboo Loll Dey's little book is in this way likely to be of use. Unfortunately for it, however, it has appeared just when the new Indian Pharmacopœia is about to be issued. Nevertheless, the clear and accurate accounts of remedies it contains will give this work a certain value at all times. It originally constituted the descriptive catalogue of a collection of native drugs sent to the Paris Exhibition.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 12, 1868: —

Chinery, Edward Fluder, Lymington, Hants.
Forsyth, Alexander, Douglas House, Greenwich.
Inglis, Walter William, Clifton Lodge, Brixton-hill.
White, James Atkin, Manchester Infirmary.

The following gentleman also on the same day passed his First Examination: —

Hardman, William, University College Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BERRELL, C., M.B.—Assistant Medical Officer to the Northampton General Lunatic Asylum.

CRYAN, R., L.K.Q.C.P.I.—One of the Medical Officers of St. Vincent's Hospital, Stephen's-green, Dublin.

MACGREGOR, A. J., L.R.C.P. Ed.—House-Surgeon to the Poor-house, Barnhill, Glasgow, and Medical Superintendent of the Lunatic Asylum.

USSHER, H., B.A., M.B.—Honorary Physician to the Hospital and Dispensary for Women and Children, Vincent-square, Pimlico.

NAVAL AND MILITARY APPOINTMENTS.

MACKENZIE, W., C.B., C.S.I., M.D., Inspector-General of Hospitals, H.M.'s Indian Military Forces.—Honorary Physician to the Queen.

MCMASTER, V. M., M.D., Assistant-Surgeon 18th Hussars.—Staff Surgeon.

OGE, J. H., C.B., M.D., Deputy-Inspector-General of Hospitals, of H.M.'s Indian Military Forces.—Honorary Surgeon to the Queen.

BIRTHS.

BLENKLEY.—On January 29, at Chea View, Simla, Bengal, the wife of T. M. Blenkley, Esq., B.A., M.D., Staff Surgeon, of a son.

HUNTER.—On March 17, at 5, Upper Marine-terrace, Margate, the wife of W. F. Hunter, F.R.C.S., of a son.

LITTLEJOHN.—On March 12, at 12, Royal-circus, Edinburgh, the wife of Dr. Littlejohn, of a son.

MACNAB.—On March 10, at Bury St. Edmunds, the wife of Robert Macnab, M.D., F.R.C.S. Ed., of a son.

MCCOY.—On February 22, at Sierra Leone, West Coast of Africa, the wife of R. W. McCoy, M.D., Colonial Surgeon, of a daughter.

NASON.—On March 19, at Stratford-on-Avon, the wife of J. J. Nason, M.D., of a daughter.

ROBERTS.—On March 17, at South Norwood, the wife of S. B. Roberts, M.D., F.R.C.S., of a daughter.

SMITH.—On March 8, at 18, Holland-place, Clapham-road, the wife of W. H. Smith, M.R.C.S., of a son.

MARRIAGE.

TURNER—FIELD.—On March 12, at Lymington, E. P. Turner, M.B., L.R.C.P., M.R.C.S., to Ellen, eldest daughter of the late W. Field, Esq., of Lambeth. No cards.

DEATHS.

COLLIER, T. P., M.R.C.S.E., of Worship-street, Finsbury-square, on March 7, aged 44.

FLEMING, E., M.D. Glas., L.R.C.S. Edin., of Princes-street, Stranraer, N.B., on March 10.

GOLDSMID.—On March 14, at 1, Dover-street, Piccadilly, of rapid consumption, the wife of Dr. G. de Gorrequer Griffith.

HOWARD, V., M.D., of King's Lynn, at Oatsall, Ifield, Sussex, on March 16, in his 64th year.

MASLEN, E. G., M.D., of Leeds, on March 17.

ROBERTSON, D. R., Surgeon-Lieut.-Col. 91st Regiment, at [illegible], Glasgow, on March 8.

WATSON, J., Surgeon, of Sunderland, on March 3, aged 73.

WILSON, R., L.F.P. and S. Glas., of Harold, Hellingsome, on February 29.

VACANCIES.

CALMADHEN INFIRMARY.—House Surgeon.

ISLINGTON DISPENSARY.—Surgeon.

KING'S COLLEGE HOSPITAL.—Two Assistant-Physicians.

ROYAL GENERAL DISPENSARY, BARTHOLOMEW CLOSE.—Assistant-Physician and Surgeon.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—Fifth Physician, Operating Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Axbridge Union.—Mr. Frederick Waghorn has resigned the First District, [illegible]; population 4371; salary £82 10s.; [illegible].

Burton-upon-Trent Union.—Mr. R. S. Belcher has resigned the Burton-upon-Trent District; area [illegible]; population 7767; salary £120 per annum. Also the Workhouse; salary £30 per annum.

[illegible] Union.—Dr. Davis has resigned the [illegible] Incorporation; area 12,244; population 2633; salary £70 per annum. Also the Workhouse; [illegible] per annum.

[illegible] Union.—Mr. E. C. Cottingham has resigned the Gedney-hill District; area 9182; population 1705; salary £[illegible] per annum.

[illegible] Union.—The Peters Marland District is vacant; area 2200; population [illegible]; salary £4 [illegible] per annum.

[illegible] Union.—Mr. William Latimer has resigned the Alston District; area 3067, population 2004; salary £[illegible] per annum.

APPOINTMENTS.

Dublin Union.—Walter G. Copeman, M.R.C.S.E., L.S.A., to the North District.

East London Union.—Thomas Thyne, M.D. Edin., M.R.C.S. Eng., to the Aldgate District.

Hackney Union.—Charles T. Aveling, M.R.C.S. Eng., L.S.A., to the Homerton District.

Richmond (Surrey) Union.—Alexander Crichton, L.R.C.P. Edin., M.R.C.S. Edin., to the Mortlake District.

Rye Union.—Sykes Bramhall, L.R.C.P. Edin., L.S.A., to the St. Leonard's District.

Rugby Union.—David Torrance, M.D. Glas., M.C. Glas., to the Dunchurch District.

THE LEVÉE.—At the Levée held on Tuesday by his Royal Highness the Prince of Wales on behalf of her Majesty, the following members of our Profession were presented: — Surgeon-Major Thomas Atchison, Her Majesty's Bengal Army, by Lieut.-General Sir Sidney Cotton, K.C.B.; Surgeon H. C. Brodrick, Madras Army, by the Secretary of State for India; Dr. Thomas Bishop, by the Right Hon. Sir Stafford Northcote; Deputy-Inspector-General of Hospitals Robert Bowen, by Dr. Logan, C.B.; Dr. Frederic Farre, by Sir Thomas Watson; Assistant-Surgeon Samuel Grose, by Major-General Travers; Assistant-Surgeon F. R. Hogg, M.D., R.A., by Colonel G. Gambier, C.B.; Dr. H. H. Massy, Deputy-Inspector General of Hospitals, on promotion, by Dr. Logan, C.B.; Dr. Monro, by Sir William Russell; Surgeon-Major Frederick Robinson, M.D., Scots Fusileer Guards, on promotion, by Field Marshal Sir Alexander Woodford, G.C.B.; Sir James Y. Simpson, by Earl Russell; Dr. E. J. Waring, Her Majesty's Indian Army, by the Secretary of State for India; Staff-Surgeon William Marshall Webb, by Dr. Logan, C.B.; Assistant-Surgeon G. Whitla, R. H. A., by Colonel Gambier, C.B. The following attended the Levée: — Sir Ranald Martin; Sir Thomas Watson; Drs. Balfour Cockburn; William Carr, G.J.S.; Camden; Day-Goss; Gream; Logan, C.B.; Minter; Priestley; Frederick G. Reed, Charles G. Workman; Messrs. Oscar, Clayton, Judd (Surgeon-Major), Leonard, Kidd (Staff-Surgeon), Nicoll (Surgeon-Major), Philip Vanderbyl, M.P.

ACADÉMIE DE MÉDECINE.—M. Daremberg has been elected an *associé libre*, by the votes of fifty out of eighty-three members who were present.

EDINBURGH AND ST. ANDREWS UNIVERSITIES.—At the last moment of going to press, we have received the following information:—At the meeting of the Senatus Academicus of the University of Edinburgh, held on March 18, the following resolution was passed unanimously:—"That the Senatus Academicus, having had their attention drawn to the decision of the University Court to oppose the proposition that graduates in Medicine of the University of St. Andrews should receive electoral privileges, under the Scotch Reform Bill, resolve not to join in this opposition."

THE NEW MEDICAL BARONET.—The old students of University College intend to invite Sir William Jenner to receive their congratulations on his new distinction at a dinner in the library of the College on April 24 next. We are heartily glad this compliment will be paid to the new Baronet by his whilom fellow-students and pupils.

THE NEW ST. THOMAS'S HOSPITAL.—Her Majesty the Queen has been graciously pleased to intimate, in reply to an invitation from the governors of St. Thomas's Hospital, that she will be prepared to lay the foundation-stone of the new Hospital on some day to be named after May 12.

PRIZE QUESTIONS.—The Belgian Academy of Medicine offers gold medals of the value of 1000 fr. for the best essays on the following subjects:—1. Investigate experimentally the effects of the application of cold and heat at different degrees to the nervous system. 2. Give the history of ovarian cysts, insisting on their differential diagnosis, and the treatment suitable for each variety of cyst. Memoirs to be forwarded to the Secretary before January 1, 1870.

THE SOCIETY FOR THE PROTECTION OF ANIMALS OF HAMBURG have voted their medal this year to Dr. B. W. Richardson, F.R.S., for the invention of the ether spray, and its application to Veterinary Surgery. The medal was presented on Tuesday last, through a member of the Society, at the rooms of the Royal Society for the Prevention of Cruelty to Animals. The Prince Lucien Bonaparte presided.

MEDICAL CHARITIES.—Mr. Samuel Eyres, of Armley, Leeds, recently deceased, has bequeathed £200 each to the Leeds General Infirmary, the Leeds Dispensary, and the Leeds House of Recovery. Mr. Henry Tull, of Cork-street, Burlington-gardens, has also bequeathed £100 each to the Brompton Consumption Hospital, the Royal Free Hospital, and the Royal Berkshire Hospital.

THE Council of the Royal Hospital for Diseases of the Chest, City-road, are about to recommend the Governors to appoint a fifth Physician, in order to provide for the great increase which has taken place in the number of out-patients. They propose that at the same time the Governors shall appoint a Surgeon to the Hospital, Mr. Adams remaining as Consulting-Surgeon.

SCIENCE AND ART SCHOLARSHIPS.—The Committee of Council on Education have resolved to institute small scholarships in connexion with elementary schools, for the purpose of advancing scientific instruction. The teacher is to be rewarded, as well as the scholar, according to the results obtained. The higher class of scholars will have an opportunity afforded them of entering the Government schools of science in London and Dublin, and at the same time will be supported by Government, but these are only the best men. It is not necessary that the teacher should be certificated, except inasmuch as his own recompense is concerned, and any five persons may form a committee for the introduction of these benefits to any district of the country. We hope that these liberal measures will be successful in improving the standard of scientific instruction throughout the country.

STATISTICAL SOCIETY.—At the 34th annual meeting the following gentlemen were appointed officers for 1868-9:—*President:* The Right Hon. W. E. Gladstone, M.P. *Council:* H. W. Acland, M.D., F.R.S.; Walter Bagehot, M.A.; Major-General Balfour, C.B.; Thomas Graham Balfour, M.D., F.R.S.; R. Dudley Baxter, M.A.; Lord Belper; Sir John Boileau, Bart., F.R.S.; Samuel Brown; William Camps, M.D.; Hyde Clarke, D.C.L.; Leonard Henry Courtney; William Farr, M.D., D.C.L., F.R.S.; William Augustus Guy, M.B., F.R.S.; James Thomas Hammick; Frederick Hendriks; James Heywood, M.A., F.R.S.; William Barwick Hodge; Right Hon. Lord Houghton; Francis Jourdan; John Lambert; Leone Levi; Sir John Lubbock, Bart., F.R.S.; William Golden Lumley, LL.M.; James Ranald Martin, C.B., F.R.S.; William Newmarch, F.R.S.; Frederick Purdy; Rev. J. E. T. Rogers, M.A.; Alderman Salomans, M.P.; Col. W. H. Sykes, M.P., F.R.S.; Jacob Waley, M.A. *Treasurer:* James Thomas Hammick. *Honorary Secretaries:* William Augustus Guy, M.B., F.R.S.; William Golden Lumley, LL.M.; Frederick Purdy.

SUCCESSFUL PROSECUTION UNDER THE APOTHECARIES' ACT.—At the Rochester County Court on Tuesday, March 10, Mr. Gibson, of Dartford, appeared as solicitor in an action of the "Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London," plaintiffs, and J. Francis Staines, of Strood, Kent, defendant. The action was brought to recover the sum of £20, for that the defendant had attended, advised, and supplied medicines to and for the use of divers persons, without having obtained such certificate to practise as an Act passed in the 55th year of the reign of his late Majesty King George the Third directed, contrary to the statute in such case made and provided, whereby the defendant for his said offence forfeited the sum of £20. Mr. Gibson said Staines had paid the penalty and certain expenses into court late the day before, and by this means had acknowledged himself convicted of the offence with which he was charged. He now applied to his Honour for plaintiffs' costs, which, together with and for other legal reasons he explained, he pressed his Honour to allow on the highest scale, for that the defendant's (Staines's) conduct had been that of a barefaced impostor, who had been practising as a pretended Medical man for the past twelve months under very aggravated circumstances. The usual costs were allowed. He was practising under cover of another man's name, having the word "Staines" painted over his window, and "Mr. Cahalan, Surgeon, etc.," on his door.

FORMATION OF AN ARMY MEDICO-CHIRURGICAL SOCIETY FOR PORTSMOUTH.—A Society under the above title was opened at Portsmouth, on the 11th inst., with the sanction of the Major-General commanding the division, and under the patronage of the Director-General of the Army Medical Department. The opening meeting was attended by Lieutenant-General Sir George Buller, his staff, and several other military officers. The address was delivered by Dr. C. A. Gordon, C.B., Deputy Inspector-General of Hospitals, who, after reading a letter from the Director-General accepting the invitation to become patron of the Society, and promising to afford it all the support and encouragement in his power, delivered a long and most interesting address, giving an elaborate narrative of the early development and progress of Medical science. He reminded his audience that not until 1739 were barracks erected in this country for the accommodation of soldiers. Prior to that date the men lived in billets, chiefly in beer-houses and livery stables, being there lodged in garrets, lumber rooms, or back sheds fit for no other purpose, absolutely without means of preserving personal cleanliness, and destitute of those conveniences which are no less essential to bodily health than they are to morality. Such being the conditions, it will hardly seem credible to us of the present day that when, in 1720, the first proposal to establish barracks for the troops was made, it was instantly opposed; the people of London declaring that they wanted "no red-coated nurses." Perhaps, therefore, it is not to be wondered at that the buildings erected, after nineteen years of discussion, and, as we are informed, "angry suspicion in the public mind," were described by Dr. Brocklesby as "low and ill-ventilated," calculated rather to generate than cure disease, and sweeping off the men like a perpetual pestilence. In 1791 John Bell, of the 26th Regiment, introduced into Hospitals a scale of diet suited to the requirements of sick men, instead of the salt pork and beef which prior to that time had been the food allowed to the soldier whether at his ordinary duties or prostrated with dysentery. He published a work on "the causes which produce, and the means of preventing, disease in the West Indies," the title indicating the importance he attached to hygiene, and to him, in a letter addressed to Earl Spencer in 1798, is due the first advocacy of one great school for military Surgery. In that communication he entered into various details in regard to the subjects which, according to his views, should be taught in such a school. These were anatomy, military Surgery, military Medicine, Medical geography, including climates, seasons, the coasts of various countries, the manner of conducting soldiers on foreign expeditions, the care of their health, the choice of encampments, the forming of Hospitals on shore, how to convert churches and public buildings to this purpose, how to attend an army in the field, how to lay wounded in besieged towns, and how to carry them off the field in a retreating army. He would, moreover, have taught what he called military economics, as diet, clothing, exercise, general Medicine, and all methods of preventing disease. Surely it must

be admitted that this army Medical officer fully appreciated the importance of preventive Medicine, or hygiene, as this branch of service is now more generally termed. On the subject of barrack construction in tropical regions Dr. Robert Jackson, with special reference to the West Indies, thus expressed himself in 1791:—"Barracks should be raised from the ground on brick pillars to a height of three feet, and thoroughly ventilated beneath. They should consist of only one story, and have a roof lofty and double; a piazza, ten or twelve feet in breadth, furnished with *jalousies* painted green, should extend along their front and rear. The barrack-room should contain twelve men, and there should be a room for a non-commissioned officer at the end of the rear balcony." Here, then, we find enumerated the very principles which, after an interval of sixty years, were reproduced, but without the name of the military Surgeon who first propounded them being so much as mentioned. Among many other considerations which had reference to the efficiency of the army and well-being of the individual soldier that this eminent Surgeon and estimable man devoted some of his attention to, was that of the demeanour of officers towards their men. It was he who first advocated the appointment of health officers to armies in the field. "As the health of troops," so he observed, "is a matter of the greatest importance to the success of war, health officers may be justly considered to be an important part of an army." Dr. Gordon next proceeded to mention the labours and fame of military Surgeons of the present century—Guthrie, Hennen, Millingen, Marshall, Burke, etc. The latter was the first principal Medical officer of the army who was sent to India, to whose oft-repeated representations are due the first improvements in the hygienic conditions of the soldier in that country that were sanctioned—whether referring to accommodation, food, clothing, recreation, moral advancement, measures for the repression of vice and crime, or the numerous other matters that have reference to his physical as well as moral well-being; and Dr. McLeod, his immediate successor, who most ably, and in some respects successfully, continued the good work that Dr. Burke had begun. It may well be said that to the labours of those two Medical officers the soldier is indebted for enjoying whatever advantages service in India now offers to him. To Larrey, Europe and the civilised world are indebted for an organised system of transport for wounded; and you have doubtless read that when on one occasion the sick under his care were perishing for want of necessary sustenance, he, on his own responsibility, ordered the slaughter of the officers' chargers to furnish soup for his patients; how Napoleon, under whom he served, applauded the act, and, when the official connexion had ceased, described this army Surgeon as having been the most upright public servant he had ever met. Of the numerous and important services of the late Sir James McGrigor I can only hope to give a very faint sketch. His name is prominently mentioned in connexion with his successful administration while in charge of the force sent from India to Egypt under Sir David Baird; then with the excellent report of that expedition which he published; and for more than forty years afterwards there was not an improvement in the condition of the soldier but had connected with it the name of this distinguished army Medical officer. In January, 1812, he arrived at Lisbon and assumed charge of the Duke of Wellington's army; nor was it long before that great commander discovered the high qualities of his principal Medical officer, to whom he gave his entire confidence, communicating with him daily, and acquainting him of all his intended operations. The results of this confidence, and the mutual co-operation which it engendered, are so important, and at the same time so suggestive, that I would crave attention to some of them. He began by dispersing the great numbers of soldiers and officers who, on the plea of being under treatment at the general Hospital at Lisbon, are said to have preferred the life in that luxurious city to their duties with the army; he instituted field and regimental Hospitals. But of his many qualifications for the position which he held the greatest was the readiness with which he made arrangements to meet events that were about to occur; thus, when Lord Wellington announced to him his intended movement on Badajoz, Sir James McGrigor made arrangements whereby every regiment and division was at once supplied with every kind of stores, medicines, instruments, and appliances that were likely to be necessary, and, in addition to these measures, established a depot at Elvas for such further supply as might be required. Another great quality of this army Medical officer was the accuracy of the estimates he was wont to form of the numbers of men who, from time to time, might be expected to return to the ranks after treatment in Hospital on account of wounds or disease; and we have numerous proofs that in his manner of conducting duties with the Medical officers under him he secured their personal good feeling and hearty co-operation. And what were the results that arose from the confidence with which he was treated by his commanding officer, and the heartiness with which good feeling towards him personally induced the other Surgeons throughout that army to second his exertions? We have them recorded at page 331 of his autobiography, and I will give you the words *verbatim*. "It was said with much truth by an eminent individual that he thought the extraordinary exertions of the Medical officers of the army might be said to have decided the day at Vittoria, for their exertions had undoubtedly added a full division to the strength of Lord Wellington's army, and without those 4000 or 5000 men it is more than doubtful if his lordship, with all his unrivalled talents, could have gained the day." The eminent individual here alluded to is Napier, the historian of the Peninsular war. We would endeavour, as far as in us lies, to preserve intact, and add to, that purely Professional knowledge without which it is impossible to make headway, either in military or civil life. We would, by continued attention to the rules, orders, and usages of the army, by careful study of the influences that affect masses, by the cultivation of good understanding among ourselves, and of confidential intercourse with our military brethren, endeavour to fulfil the great object for which we alike strain—namely, the efficiency of that portion of the British army with which we are more immediately associated." The General expressed his approval of the object of the Society, and thanked Dr. Gordon for the address he had delivered. He was astonished that this excellent project had not been thought of and set on foot before, and felt no misgiving as to its usefulness and its continued success. The room in which they had met was scarcely worthy of the object of such a Society as this, and he would use every endeavour to obtain such a place as would be acceptable to members for future meetings, and he would give to the Society his support in every possible way.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr Hutchinson's "Notes on Paris Hospitals" will be continued next week.

B S- is thanked. We are already supplied.

A Constant Subscriber.—Certainly not in private practice.

H. R.—Robbins, chemist, 372, Oxford street.

A Constant Subscriber, M.D. Lond.—Dr B might have come on the emergency to save life, and have resigned the patient on Dr A.'s return.

Consanguinity.—A correspondent asks the following question:—"If first cousins are healthy and intermarry, will their offspring suffer as a consequence of their relationship, or will such union in any way contribute to disease?"

M.—Births in Workhouse Infirmaries and Deaths of Parturient Women in London, 1865.—According to a return presented to the House of Commons in August, 1866, the total number of births in the thirty-nine workhouses of the metropolis during 1865 was 2728. The total number of women who died in childbirth was 16, or 5·8 per thousand. There were thirty workhouses in which no death occurred; and it is noted that one death occurred from Cæsarian section, and one from phthisis.

On the Value of Fish as an Article of Diet.—A correspondent of unusual experience upon the present condition of Orissa (notorious for its late appalling famine), communicates to the *Spectator* the following singular statement in connexion with the starving poor:—"The coast-people, who perished in the largest proportion of all, had an abundant supply of fish; but, without vegetable food, it fails to sustain nature, and they died as complete victims of starvation as those who had no food at all—in fact, the famine was most sore among them." The writer observes that this is "a singular fact for physiologists;" and unquestionably, if it is a fact, it is a very singular one. Can any of our Indian readers throw any light upon the subject?

Dr. Clive.—The first enlargement of the privileges of the Hon. East India Company in Bengal was through the instrumentality of Mr. Surgeon Broughton, about 1645. He was appointed Surgeon to the Emperor, and his Professional skill procured him much credit at the Mogul's court.

Electro-Magnetism

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE

SIR,—Will any of your Medical or other readers kindly answer for me the three following questions?—

1. Who first took out a patent for a medico-electrical machine?
2. Who first did so for an electric telegraph? And
3. Was a coil, two, or five needle instrument specified in the patent?

Bath. I am, &c. T. H. P.

Returning the Inverted Uterus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE

SIR,—The other day, in the Obstetrical Society of London, there was a discussion on inversion of the uterus. Dr. Protheroe Smith said that he had been able to effect retrocession of the organ after it had been inverted for thirteen months by means of continuous pressure with a wooden hemisphere. Had he first tried incising the cervix? It seems to me that, the greatest obstacle to the retrocession being in the contracted cervix, multiple incisions thereof would have been the more rational mode of treatment. By these the rigid state of the cervix would have been overcome, and the uterus easily reduced without any danger from inflammation, which is exceedingly apt to follow all forcible methods of reduction.

This mode of treatment is not new. It is not, indeed, to be met with in Murphy—who, by the bye, is a very timid obstetrician—but Wasseige, the learned Professor of Midwifery in the University of Liege, says that it is the sole legitimate, as it is the most effectual plan.

Wemyss, Fife, March Lam, &c. W. Peall, M.D.

COMMUNICATIONS have been received from—

Mr G. T. A. Seale; Mr John Lawson; Mr A. G. Brown; Dr Fayrer; Dr Gervis, Dr Higginbottom; A. L. M.; B.S.; H. R.; Dr. C. Hilton Fagge; Dr Nettleham; T. H. P.; Dr Theiles Fox, Dr John Imray; A Firm of Glasgow; Mr Norman Macleod; A Constant Subscriber; Dr William Winter, Mr H. B. Condy, Mr. Beckeley Hill; Mr R. Bousfield; Dr W. Peall; Mr W. Wesley; Mr William Allingham; Mr. H. Sellevant; Mr J. J. Dear; Dr. Cames; Mr G. W. Callender; One of the Aggrieved; Dr. Gordon; Mr J. C. Steele; Mr E. Bellamy; Dr. Lionel S. Beale; Dr. Barnes; Dr. J. Braxton Hicks; Mr. J. Chatto; Dr. A. O. Speedy; Dr. Day; Mr. J. Hutchinson.

BOOKS RECEIVED—

Steele's Statistical Tables—Ruler on the Human Eye—Venereal Disease Report—Devonshire Hospital Report—Report of Glasgow Royal Infirmary—Wood's Chapters on Man—Report of the New York Infirmary—Wilson's Ophthalmoscopy—Transactions of the Ethnological Society, vol. 6—Ormerod's Natural History of Wasps—Tyndall's Faraday as a Discoverer—Morton Cattle Trade—Crane on the Sanitary Condition of Leicester—Rimmel on the Paris Exhibition.

NEWSPAPERS RECEIVED—

Printers' Journal, No. 83—North British Daily Mail—Hampshire Telegraph—Medical Press and Circular.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 14, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Mar. 14.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Mar. 14.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126645	40·1	2288	1441	1309	56·3	32·5	44·7	0·36	56
Bristol (City)	167487	35·7	136	75	187	57·4	31·9	44·3	0·36	56
Birmingham (Boro')	352296	42·6	281	171	152	56·0	29·8	44·0	1·02	103
Liverpool (Borough)	500676	98·6	412	290	291	57·5	34·6	44·3	0·32	32
Manchester (City)	356385	81·8	285	208	†197	58·0	33·5	44·1	0·59	60
Salford (Borough)	117102	22·7	129	59	50	55·5	32·1	44·0	0·64	65
Sheffield (Borough)	232362	10·2	208	122	103	57·1	33·0	43·4	0·58	59
Bradford (Borough)	108019	16·4	103	54	56	..	..	..	..	..
Leeds (Borough)	230746	11·0	209	120	123	62·5	27·5	43·9	0·38	38
Hull (Borough)	108269	30·4	81	50	52	60·0	30·0	41·8	0·31	31
Newcastle-on-Tyne, &c.	127701	23·9	99	68	59	56·0	34·0	43·7	0·13	13
Edinburgh (City)	177039	40·0	110	85	99	51·7	34	42·5	0·21	20
Glasgow (City)	449058	88·9	359	262	266	58·0	30·0	44·3	0·79	80
Dublin (City and some suburbs)	319955	32·8	170	*157	150	57·5	32·8	45·5	0·28	28
Total of 14 large Towns	6391080	34·7	4951	3163	2994	62·0	27·5	44·0	0·47	47
					Week ending Mar. 7.	Week ending Mar. 7.				
Vienna (City)	(1863) 560000	..	..	..	..	..	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·756 in. The barometrical reading decreased from 29·18 in at the beginning of the week to 28·82 in. by 5 A.M. on Sunday, March 8; increased to 29·51 in. by 9 A.M. on Monday, decreased to 29·29 in. by 9 A.M. on Tuesday; increased to 29·41 in. by 9 P.M. on the same day; decreased to 29·11 in. by 9 P.M. on Wednesday; and increased to 30·10 in. by the end of the week.

The general direction of the wind was S.W. and S.S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861, at this distant period, however, since the last census it is probable that the estimate may in some instances be considerably above the truth.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the limits of the towns.

‡ The mean temperature at Greenwich during the same week was 40·2

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 14, 1868.

BIRTHS.

Births of Boys, 1172; Girls, 1116; Total, 2288.
Average of 10 corresponding weeks, 1858-67, 2252·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	665	644	1309
Average of the ten years 1858-67	746·1	727·4	1473·5
Average corrected to increased population..	..	..	1621
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	9	1	1	11	6	2	..
North ..	618,210	3	6	6	2	9	13	5	2
Central	378,058	1	2	1	1	10	1	..	..
East ..	571,158	1	9	2	1	7	7	2	..
South ..	773,175	5	10	2	3	17	9	5	..
Total ..	2,803,989	11	36	12	8	54	36	14	2

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·736 in.
Mean temperature	44·7
Highest point of thermometer	56·3
Lowest point of thermometer	33·5
Mean dew-point temperature	39·4
General direction of wind	S.W. & S.S.W.
Whole amount of rain in the week	0·36

APPOINTMENTS FOR THE WEEK.

March 21. Saturday (this day).

Operations at St. Bartholomew's, 1 p.m.; St. Thomas's, 2½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

Metropolitan Association of Medical Officers of Health, 7½ p.m. Dr Letheby, "On the Cholera Epidemic of 1866 contrasted with former Epidemics of the Disease, and an Examination of the Question whether the Water-supply had any Connexion with the Disease."

Royal Institution, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

23. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

24. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Ethnological Society of London, 8 p.m. Meeting.

Royal Institution, 3 p.m. Dr M. Foster, "On the Development of Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Christie, "Case of Absence of Corpus Callosum." Mr. Callender, "On Non-Uniting Fractures."

25. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Hunterian Society, 8 p.m. Mr Bryant, "On Some Cases of Inflammation of the Breast simulating Cancer."

Royal College of Physicians of London, 5 p.m. Lumleian Lectures—Dr. Guy, "The Factors of the Unsound Mind, with Special Reference to the Plea of Insanity in Criminal Cases."

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. Meeting.

26. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Royal Institution, 3 p.m. Dr. M. Foster, "On the Development of Animals."

27. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Meeting.

Royal College of Physicians of London, 5 p.m. Lumleian Lectures—Dr. Guy, "The Factors of the Unsound Mind, with Special Reference to the Plea of Insanity in Criminal Cases."

Royal College of Surgeons, 4 p.m. Prof. Huxley, "On the Anatomy and Physiology of Invertebrate Animals."

Royal Institution, 8 p.m. Dr. Carpenter, "On the Unconscious Action of the Brain."

Royal London Ophthalmic Hospital, Moorfields, 8½ p.m. Lecture by Mr Hutchinson, "On the Opathalmoscope in Relation to General Medicine."

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

Lesions of the Motor Tract.

(*Continued from page 282.*)

Having shown you how disease of the motor tract paralyses the body below, and that the site of this disease can be discovered by the special nerves which are affected, I will now briefly allude to the paralysis of these nerves when diseased at a distance from their centres.

As regards the first or olfactory nerve, this, if diseased, is in connexion generally with caries of the cranium, and the resulting symptom would be a loss of smell, preceded perhaps by what the patient would call a bad smell, an altogether subjective sensation.

Affection of the optic nerves would necessarily change the condition of the retina, and thus the ophthalmoscope has done much to indicate morbid processes going on within the brain. It is remarkable, however, in what a great variety of diseases of the brain amaurosis or blindness may be a symptom, not only where a tumour presses on the optic tracts, but when situated in the cerebellum and other parts. In these cases the ophthalmoscope has generally shown an atrophy of the optic disc, whilst in the amaurosis attendant on inflammation of the brain the appearance of the disc has shown that the optic nerve and retina have participated in the process. It is remarkable in what a large number of brain affections amaurosis is present, but on what exact changes these depend, according to the teachings of the ophthalmoscope, I cannot at present inform you, as I am only a learner with yourselves.

Little, too, can be said positively as to the interpretation of alteration in the size of the pupils. Their movements depending upon different causes, you may see how their condition may be frequently deranged. You know that, the circular fibres of the iris being supplied by the third nerve, a paralysis of this nerve will necessitate a dilatation of the pupil; and you know how late experiments have shown that the radiating fibres are supplied with motor filaments, which run into the cervical sympathetic; and thus how pressure on this nerve, as is seen in cases of tumours of the neck, will cause contraction of the pupil. It has been found that irritation of the upper part of the spinal cord and upper thoracic nerves will also influence the pupils through these same nerves, and also any affection of the first division of the fifth pair through the same channel. The exact nature of the nervous filaments which supply the radiating fibres of the iris has not yet been satisfactorily determined. Apart from these very definite and well-ascertained causes which influence the pupil, it is observed that they become altered in size under a great variety of circumstances. In those cases where there are well-marked cerebral symptoms and affection of the cranial nerves, it is generally supposed that the third nerve is at fault, although there is little proof. In the general paralysis of the insane, in locomotor ataxy, the pupils are, as a rule, diminished and unequal in size; and the same condition may be observed in some other chronic diseases affecting the cerebro-spinal system. In various acute diseases of the brain the pupils are altered, but I am not aware that any definite lesion can be necessarily associated with the condition. In cases of pressure on the brain from effused blood, the pupil is often larger on one side than the other; and I have seen a case of chronic hydrocephalus in which the pupil of the side on which the patient lay was always more dilated than the other. But although a difference in the size of the pupils will do little more than denote cerebral trouble, an extreme condition of dilatation or contraction always indicates a very serious affection of the brain. For instance, in ventricular effusion the pupils become, as a rule, widely dilated. This fact you should well bear in mind, because, on visiting a child suffering from head disease, you may be informed by the mother that it is in a "nice sleep," but when you raise the eyelids you find the pupils widely dilated. You know that in sleep the pupils are contracted, and so remarkable is this circumstance that, if you place the child before the window, their size remains unaltered, but immediately you awake it the pupils expand, although the light is still shining upon them. At the same time remember that a contraction of the pupil is an equally unfavourable sign in many cerebral disorders, and more especially in apoplexy. In those fatal cases where blood has burst out into the ventricles, or diffused itself over the base of the brain, the pupils are often found minutely contracted, just as they are in cases of effusion into the pons. It is said that the state of the pupils will give information as to the nature of the cerebral trouble when a man is brought in insensible. Certainly a well-marked change in the pupils will always indicate something serious, but a negative condition may exist in many serious lesions. Thus I do not know that you can tell concussion by the pupils, nor drunkenness by the pupils. In uræmic coma I have observed the condition of the pupils over and over again, and should say that they are not affected. I have repeatedly seen cases brought into the accident ward where injuries to the brain had occurred with various amounts of effusion of blood, and the pupils were at first contracted and afterwards became dilated, showing that some slight change will affect them although the main lesion remains as before. You must not only observe the size of the pupil, but whether the iris can still be stimulated by the influence of light upon the retina. In recent injury or acute disease, if there be immobility of the pupil when the light of a candle is thrown upon the eye, it generally is an evidence of some affection of the brain in which the optic tracts are implicated. You must please remember the sympathy which exists between the two eyes, and how the perfect susceptibility of the one will influence the other, and thus, therefore, the necessity of examining each eye separately.

As regards paralysis of the third nerve, this you may constantly witness in the wards of the Hospital, the symptoms being what you might expect from your knowledge of its anatomy—an inability to move the eye except outwards, a dilatation of the pupil, and ptosis. I remember a case where there was no ptosis, showing the lower branch of the third nerve was only affected, but the pupil was dilated.

I do not remember to have seen the fourth nerve solely paralysed.

The fifth nerve is sometimes paralysed from disease within the cranium, as I have more than once seen from carcinoma or syphiloma involving the nerve. You would expect loss of sensation over half of the face, as far back as the ear, including the eye and tongue, and also loss of power over the masticatory muscles which the motor branch supplies, including paralysis of tensor palati, anterior belly of digastricus and mylo-hyoid muscles. There is a loss of taste and smell in part. There is also ulceration of the cornea. The latter fact opens up a large question which I shall again refer to when speaking of the spinal cord—the influence of the nerves on nutrition. There are many clinical facts, supported by direct experiments on animals, to show that nerve supply is all-important in the due maintenance of the integrity of the tissues, whether this be due to their power of controlling the calibre of the blood-vessels, or by the supply of a more direct chemical force derived immediately from the nerve centres. There are those physiologists and pathologists who would make all growth and tissue change dependent on a nerve influence, whilst there are others who see nothing but cell production and chemical changes in process after the manner of oxidation. Neither opinion can be absolutely correct, seeing that cell growth, good blood supply, and nerve distribution, are all united together in the tissues before us, and an harmonious working must be going on amongst them. At present, therefore, I will only say that, although paralysis of the fifth nerve will produce inflammation of the eye and ulceration of the cornea, yet that if the eyelid be closed to protect it from the irritants, of whose presence it is no longer sensible, the ulcer will often rapidly heal. This I had a good opportunity of seeing in a patient of Dr. Barlow's, two or three years ago.

The sixth nerve is occasionally paralysed with other muscles.

The seventh nerve may be affected at its root, and thus both facial and auditory may be paralysed; or the former may be affected alone, but such instances are comparatively rare. Facial paralysis occurring alone seldom has a central origin. In the course of the nerve, paralysis may arise from disease in the temporal bone, or from tumours in the parotid outside. Several such cases have come before my notice; only lately I saw an infant, three months old, who had discharge from the ear, and shortly afterwards a falling of the right side of the face. In cases of fracture through the base of the skull you may witness the same. The commonest cases are those which appear to have a superficial origin, and thus are styled cases

of peripheral paralysis. As these often arise after direct exposure to cold, they are ascribed to this cause or to rheumatism. The face falls, and is dragged up on the other side, preventing the patient spitting or whistling. The ala of the nose does not expand, the orbicularis palpebrarum cannot act, and the lower eyelid falls with a constant overflow of tears. The condition of mouth is best seen if the patient be made to laugh, and the state of the eye you will never forget if you have seen a patient with facial paralysis asleep. Of late years, since greater attention has been directed to the symptoms of nerve diseases, some further facts have been observed in cases of paralysis of the seventh nerve. An example illustrative of this was published by the late Dr. Bazire. It is that the tongue and palate are sometimes paralysed, as well as the hearing somewhat affected. The paralysis of the palate is seen by muscular contraction failing when the patient is directed to swallow, and thus you will observe one side drawn up or arched whilst the other remains relaxed or in its normal straight line; at the same time, it is said that the tongue may be slightly drawn to one side. The explanation given is that the chorda tympani nerve sends a supply to the stylo-glossus and genio-hyo-glossus, whose want of action produces the result. If this be so, it shows, it is said, that the facial nerve is affected after it is joined by the petrosal nerve. You know that Meckel's ganglion in the spheno-palatine fossa, gives off the Vidian nerve, which, running backwards, divides so that the petrosal enters the hiatus Fallopii and joins the portio dura; subsequently there comes off from the latter a nerve called the chorda tympani, which joins the gustatory and proceeds to the submaxillary ganglion. I am not aware that it has been proved that this petrosal nerve and the chorda tympani are the same nerve; and, if so, I believe there is also no proof that it sends fibres to the tongue. This is one of those cases in which Waller experimented according to his method. He showed that if a nerve were divided its branches wasted—that they in a week or two underwent a fatty degeneration. Thus, if two nerves went to a muscle, he would divide one, and then examine the muscle, and discover what portions retained healthy nerve, and which the altered structure. In the case I mentioned the other day—the question of a supply to the buccinator by the third division of the fifth—I apprehend he would divide the nerve and then examine the muscle. The discovery or otherwise of changed nerve fibre would prove the point at issue. Now, in the case before us, referring to the supply to the tongue by the facial, Waller did experiment; he divided the facial nerve, and a fortnight afterwards examined the muscular tissue of the tongue, but discovered no change in it. He therefore concluded that the chorda tympani did not proceed to the tongue, but ceased at the submaxillary ganglion. I have mentioned the supposed fact of paralysis of tongue and palate because I have lately had an opportunity of observing that students at examinations have given an answer in correspondence with this, showing that this has been taught—viz., that a lesion of the facial nerve after the petrosal has joined, it will cause paralysis of the parts I name. It was also said by Dr. Bazire that hearing became more acute—which was scarcely explicable on the supposition of paralysis of the tensor tympani muscle.

(To be continued.)

THE FAMINE IN ALGERIA.—According to a letter from a correspondent at Setif, this is committing terrible ravages amongst the indigenous inhabitants, while the Europeans are suffering from an unexampled rise in the price of provisions, induced in some measure by the means of transport having become obstructed by severe snowstorms. The natives are dying on every side, or are seeking to prolong life by picking up garbage. Last year it was the cholera, and now the famine; and perhaps, when the warmer weather comes, the plague will follow, seeing that the Arabs bury their numerous dead very imperfectly or not at all. The Administration seems to be doing all it can, but the calamity is evidently beyond its powers of effectual aid. The prices which Europeans have to pay for necessaries tell terribly on the resources of those who are poor, which is the case with many. For example, 15 fr. is paid per hundredweight for wood, which should cost 4 or 5 fr.; and 40 fr. for charcoal, in place of 10 or 12; bread is 65 centimes the kilogramme, in place of 20; wine has doubled its price; potatoes are selling for 60 fr. the hundredweight; and as for meat, it is either of wretched quality and unwholesome, or so excessively dear as only to be obtainable by the rich.

ORATION FOR 1868,

DELIVERED BY

J. BRAXTON HICKS, M.D., F.R.S.,

BEFORE THE HUNTERIAN SOCIETY, ON FEBRUARY 12.

(Concluded from page 312.)

THIS brings me to the consideration of an obstacle which belongs, not to mental deficiency, but to the weakness of our race. I allude to the difficulty of obtaining sufficient data or information. This want is much felt in our Profession, especially by those who, living by it, have not sufficient time to pursue their investigations. If you look around at the scientific men of the age, you will find that almost every one follows science as an amateur, having other, and generally very pressing, occupations. There are only a few who can devote their whole time to it; one might count them off on one's fingers.

In a number of instances the observations we may make have to remain for a longer or shorter time unfinished, waiting the completion of sufficient investigations; and they are therefore kept secret more or less. There is no one we can find to assist, or whom we dare trust. Single-handed we must work, and thus the facts sought for, to a single individual, are perhaps so rare that a long time elapses before an honest mind can feel it has sufficient data to undertake to make any promulgation of the subject. And even then the observations may lie dormant some time, failing to attract attention, and another may take it up in an isolated manner after many years, who may be more successful in attracting notice.

Or perhaps—and who can say how often?—the flash of light has died out with the discoverer. How many truths may have been buried in oblivion for the want of a second depository? Dr. Marshall Hall, not long before his death, complained that he had years' hard work prepared in his brain; but it never saw light. How many others could say the same?

Alone and unassisted perhaps for years have improvements slumbered, waiting a friendly help to arouse it. What numbers of discoveries, and their consequent advantages, have been lost to humanity for the want of transmission! And this is true in all branches of science and art. Look at the ordinary arts; how each artificer keeps the secret of his trade, of his improvements in it rigidly to himself, no one assisting in developing it, or in extending its principle. Look at many trades binding over their workmen to secresy.

Picture to yourself, on the other hand, all these restrictions removed, and every one anxious to bring forward, as soon as found out, each and every advance. With what an elastic bound would art spring from her present chains! An excellent example was seen in photography after the removal of the patents which confined it to one or two early modes.

It is true that the liberal profession and arts have repudiated this retention of secrets, but yet even in these, discoveries slumber for many years for want of mutual help, or for the want of a depository wherein to record discovery in a crude form.

It is not my intention here to indicate the mode in which such a depository might be formed wherein original discoveries could be lodged in an imperfect state to prevent their being utterly lost; but I am anxious to make some remarks as to the manner in which mutual and combined help might be carried out.

Let me instance a case as example. We are all acquainted with the danger arising from the reception of the poison of scarlatina by a pregnant and puerperal woman. And yet we possess, so far as I am aware, no accurate information on the subject—at least, I have not found any monogram or any collection of facts as to how much danger exists, or what effects are produced, or what variations the disease under these conditions may assume. And yet nothing, perhaps, is so important to the lying-in woman as this knowledge, particularly as it involves the question of a large portion of the cases of puerperal fever. Be this as it may, it would take but little time to collect a mass of information which would serve to clear up the many important points on which we at present are imperfectly informed, and which, single-handed, no one, however industrious, could expect to bring together.

The same remarks apply to the facts connected with albumen in the urine. No doubt each of you can call to mind similar instances on other subjects.

What is the difficulty, then, that stands in our way to prevent these facts being gleaned? The machinery is ready to hand. Let our societies, each one of them in their particular sphere,

gather information from each member; the answers could be arranged and published with or without an analysis, but without any comments. Material will be thus ready for any one to make use of. Of course rules for the detail working will be wanted, but these can readily be arranged. It would, however, be very undesirable that any *ex-cathedra* expression of opinion should be made by the committee appointed to carry out the inquiry; or if it were believed that the information thus gathered might be too crude for an accurate basis, then a number of gentlemen might be named, who were conversant with the subject, to carry out the inquiry more carefully and more minutely.

The comparison of the results in this country might be made with those of other countries, and thus modifications of a disease might be shown, and its value ascertained. It will, I think, be agreed that combination of this kind would hasten the attainment of our knowledge infinitely more quickly, and give us a much broader view of the subject than when we work solitarily, and even jealously.

There is another influence which greatly retards our advance; and this is the tendency in most of us, if not in all, to believe we have attained the maximum, or nearly so, of knowledge in any subject, and this is more particularly the case in those matters which have been much followed. The constant desire in the human mind to find a resting-place whereon to set its foot leads it to often fancy it has reached the pinnacle of truth, when, indeed, it has only made a few steps upwards; and this tendency increases as the age of each one increases. The mind becomes more conservative as it becomes older; teachings received in youth, after long assimilation, have become so firmly rooted that to eradicate them is almost like total disrupture; to substitute others is still more difficult. The effort requires great energy, of which only a few can boast. A notable instance, however, was shown in the late Alexander von Humboldt, who, at the age of eighty, was as fresh to receive new discoveries as in his earlier days. Each of us may boast of being beyond the influence of the habit of thought just alluded to; but if we watch closely, we shall find ourselves now and then napping. And this habit is much fostered by another cause—namely, dogmatic teaching.

I am fully aware that many hold a very contrary opinion—that positive and dogmatic teaching is the quickest mode for the beginner. Possibly this is true, and, indeed, I am quite prepared to agree with the statement to a certain extent, and no harm would arise from it, were all minds so constituted as to be able to throw aside an opinion or practice when it was fairly shown to be without foundation, or if every one would take the trouble to examine for himself whether his learning was really correct. But when a man taught dogmatically goes into practice and reflects for himself, and comes to the conclusion, perhaps late in life, that the things he was taught were not so absolutely correct after all, he loses confidence in all teaching, and becomes a sceptic in his profession.

Thus we have to choose between the advantage of spreading a partial and perhaps incorrect knowledge rapidly and easily, or engrafting a solid basis for the accumulation of it in a slow but more certain way. The former I hold to be obstructive, the latter receptive. The former is more consonant with the desire of the mind above alluded to—namely, that of finding a resting-place; but the other assists progress. The dogmatic form is attractive, and it exalts the teacher, but fossilises the learner. But whether I am right or wrong, the question must be answered—Is it truthful to teach dogmatically? Is our knowledge so complete that we can teach it without any misgiving? If not, then that which is contrary to the truth cannot be correct.

There is another hindrance to advance in the tendency of many to look upon one who makes advance in knowledge or practice as a man of unstable mind. The epithet "safe man" is given to one who is quite the contrary to him; who, careful not to advance anything new himself, makes good use of the brains of his brethren often in the very thing for which the original discoverer is stigmatised as "new-fangled." No doubt we ought to have everything well-proved before it is received, but the tendency to which I allude is a chain of great weight around the necks of the pioneers of our Profession, felt seriously by those who must also live by practising it.

Combine the influence of this tendency with the effects of dogmatic teaching, the natural conservativeness of the mind, and with the preoccupation of time by active practice, and the effect of a dead log will be fully appreciated. If Medical men are not tied down by dogmatic teaching, but are taught to observe and learn for themselves, they will in a great measure manage to distinguish the true man of progress from the "unsafe" man and specious self-assertor.

But a greater weight than this is one which might have hardly been expected to exist in the present century. I mean the incubus of great names. It is one most difficult to throw off. Daily and hourly in our best discoveries it retards our progress. Let me, however, not be misunderstood. To honour with all the honour due to honest work, to intellectual attainments, and to brilliant discoveries, is the duty and pleasure of us all. But if any man of great repute has made statements on any subject which subsequent investigators find to be incorrect, the weight of that name, however great, should not be allowed to depress the balance against facts. And yet it is so constantly. Take, for instance, the great man whose name this Society bears, what authority does every word of his carry; who dares to dispute it is considered bold; and yet, I think, he, were he now living, would not so wish to influence advancement, nor to be a hindrance to independent opinion. Yet an instance may readily be found, and with which many of you are familiar. I mean the anatomy of the placenta. Hunter first described the maternal sinus-system, peculiar, if it exist, to the human being. If you look over the literature of the subject, you will be surprised at the influence of his name. Anatomists seeking to verify it, endeavouring to dovetail it in with other theories; some finding no confirmation of it, but submitting to yield to authority; some opposing it for a time and then yielding; others not venturing for a moment to doubt, but adding discoveries of their own which could not have been true if the other were so. A large number of excellent authorities opposed to his view have availed nothing. Hunter's name, and really but little besides, has carried everything before it. Yet when we look to his own modest description of his reasons for believing in this system, we find no such attempt to insist on it. He states his mode of discovery—namely, by injecting the dead body of a pregnant person through aorta and vena cava with red and yellow wax. The uterus was afterwards opened, and the wax of both colours was found in amongst the villi. But should it be shown that this mode of testing was not trustworthy, that this means of injecting would be sure to break down the delicate walls of the capillaries of the curling arteries, the whole foundation of the system falls too, for this is all the evidence he brings forward. I do not here enter into the argument, but I know that even should it be shown over and over again that the ground for his opinion is fallacious, the majority would say, "But it is not likely Hunter would make a mistake." For of course he who is always right can never be wrong. In our own time it may be remembered what an amount of influence did a recent theory on cholera gain when it was known that one in the highest position in the Profession had written in its favour. But should this really bias our judgments? Ought we to be so indolent as to let others judge for ourselves? We are bound each one to use our own faculties of judging the evidence put forth in proof of any statement, and not take the *ipse dixit* of any man as indisputable. We may not all have power and time to make direct investigations, but we can at any rate measure the value of the deductions if the premises are given us. Let us, then, while we revere the memories of the great men who have departed, or admire those who are still amongst us, not servilely bow to their mere opinions or unsupported statements, but thankfully gather up the corn they have threshed out from the ear, and treasure it up in our common garner.

In our knowledge of diseases I think we have one cause which much hinders advancement. Hitherto it has been the desire of nosologists to sharply define and separate diseases, anxious to increase the species—in fact, doing the same for our diseases as the species-mongers did for botany. This might have been well in the infancy of our knowledge, but I submit the time has arrived when we ought systematically to inquire in what points do diseases agree. The subject is almost infinite. Take the exanthemata alone. What the connexion between scarlatina, diphtheria, erysipelas, puerperal fever with its eruption, and the toxæmia of the Surgical ward and its eruption? Look again at the abrupt separation made by some between typhus and typhoid fever. Does that line exist always in nature strictly defined? Certainly between the two extremes there is a marked difference, but all who look broadly on the subject must, I think, agree that many cases occur which cannot be readily put down to the one or the other: in other words, that the symptoms of both interchange, so that either we must say the patient is suffering

from both, or that the two forms are really only variations of the same disease.

The same remarks apply to malignant disease. Carefully examined, where is the clear line which will separate the benignant from the malignant growth? It is, no doubt, convenient to separate the various principal forms, but no such absolute line exists in reality.

A broad view of disease will help us much to explain many points hitherto obscure, and will help us to treat cases by broad principles rather than by their name.

To strictly limit diseases is to tie Nature down, to endeavour to cramp her, and thus we gain only isolated views, but see her not in her full unity.

The last source of retardation with which I shall detain your attention is that produced by books. Let me consider first the text-books. They may be divided into two classes. The first is the most offending of all; I mean those written with a view to inform the student as to requirements of particular examining boards without the slightest attempt at anything further. Formerly this was in many instances the only knowledge obtained; it was carried into the country, perhaps never to be improved upon by independent thought and observation. And, as then the examiners reflected, for the most part, the knowledge of the previous half-century, it would be scarcely exaggerating to say that by the time the Practitioner thus educated finished his practice he was three-quarters of a century behind his time. To a great extent this obstacle has been removed, for by the appointment of younger examiners and more searching practical examinations this class of text-books has nearly vanished. Now in many of the second class of text-books we find only unavoidable faults. It is impossible for them to keep close up to the current practice of the day. The only way this can be lessened to a minimum is by the author keeping himself constantly informed of the latest literature. It is doubtful whether the majority of text-books are not four or five years behind the literature, and eight or ten behind the floating practice, of the day. Doubtless a well-written text-book is of much value in keeping general knowledge from being very far behindhand; but unfortunately they are looked up to as authoritative guides in after-life, a use for which they were never intended. Very many of them, instead of being compendious treatises, are simply copies of lectures to students, often re-edited without any real addition; so that we may look upon them as "milk for babes" rather than as "strong meat to them that are able to bear it."

Another book deficiency is this. A learned author brings out a work early in life well up to the day. He may frequently re-edit it without an alteration of consequence, or perhaps without the addition of important changes which have in the interim occurred in practice, except to "damn them with faint praise."

And here I may conclude with expressing the want which authors feel of good year-books to recover from chaos the books and papers without end. The New Sydenham Society has endeavoured to supply the want, but is obliged to lessen its labours in this direction. The labour is great, and the remuneration, I am afraid, scanty; but there appears no valid reason why some of our societies, or still more one of our colleges, or both combined, could not organise a permanent staff to give us a list of English and foreign works and papers. It would wonderfully lessen the labours of original investigators, whose already too much occupied time is much reduced by long searching.

These, gentlemen, are some of the hindrances which amongst others appear somewhat prominent in our struggle after truth—some portions of the rock which bars our entrance. But because they they are so many, and because we may doubt whether every portion of ultimate truth can be discovered, shall we sit down with drooping heads, and folded arms, and give up the contest? I need not wait your answer. I know, by what the Society has hitherto done, that rather than yield it will redouble its efforts, and although we ourselves may not feel the benefit of our attempts, nor see the whole of our desires fulfilled, we know that every fragment of God's truth abounds in gold, and that by the honest miner many fragments will be hewn, some with less gold, some with more, but gold in all.

WHAT IS SYPHILISATION?—M. Langlebert gives the following aphoristic reply to this query:—"Syphilisation is the art of giving syphilis to those who have not got it, to recall it in those who no longer have it, and to eternise it in those who have it."—*Presse Belge*, March 15.

ORIGINAL COMMUNICATIONS.

ON THE SEASONAL PREVALENCE OF CHOLERA IN MADRAS.

By W. R. CORNISH,
Surgeon, Madras Army.

(*Concluded from page* 313.)

I AM not at all convinced that the facts, as at present known, enable us to come to any definite conclusion regarding the influence of high temperature. I have long been aware that the maximum of cholera mortality in Calcutta is attained with tolerable regularity in the month of April, and that the minimum of mortality in that town during September corresponds very closely with one of the maximum periods in Madras. In Bombay, as in Madras, there appear to be two periods of the year in which cholera attains its maximum intensity—one in December and January, the other in April. The minimum occurs in August, September, and October. In Madras the diagram shows that the largest mortality occurs in the cold months of February and January, and the second maximum in the hot and moist months of July, August, and September. In the North-West Provinces and the Punjaub, we have the authority of the Bengal Cholera Commission for stating that the intensity of cholera epidemics is coincident with the rainy season, which begins about the middle of June and continues through September.

This period, in fact, corresponds very closely with one of the maximum periods which have been observed by me to occur at Madras and at some other places along the Coromandel coast. There is no doubt that cholera does prevail occasionally in Upper India during the hot season, especially after April. The tendency of the disease to become epidemic at this season is, I suspect, greatly aggravated by the numerous assemblages which take place at the great religious fairs and places of pilgrimage during the dry season of the year. Cholera, however, is not particular to season, when seething masses of humanity are congregated, and the germs of the disorder have full opportunities of development. The disease broke out in some portions of the vast miscellaneous assemblage of Europeans and natives at the Viceroy's durbar at Agra in the end of October, 1866. In all probability the epidemic lingered through the cold season in the North-Western Provinces, and burst out with renewed violence during the great fair at Hurdwar in April of 1867, and has subsequently been diffused throughout Upper India. These circumstances should, I think, make us exceedingly cautious in laying down any general laws with reference to the influence of temperature upon cholera. All that can at present be said in regard to it is that heat and moisture are in many parts of India coincident with the periods of choleraic intensity; while in other parts, as in Madras, Trichinopoly, and a great portion of the tract of country on the eastern side of the ghauts, south of the twelfth degree of latitude, a very marked prevalence of cholera occurs during the period of the year when the temperature is at its lowest.

In the latter localities, moreover, intensely dry heat would appear to have exactly the same effect on cholera as an extreme degree of cold has elsewhere, for in the hottest months the pestilence appears to be incapable of spreading beyond local boundaries. Gardeners in India are practically acquainted with the fact that exposure of plants to the long drought and heat of an Indian summer has an effect precisely similar to the process of "wintering." The leaves fall off, the sap descends to the roots, all the functions of life are suspended, and during this period of repose plants acquire new strength and vigour. The rarefied and heated air of an Indian summer would appear to be incapable of supporting those lower forms of vegetable life, the presence of which seems to be in some way connected with the development of cholera. Of course any irregularity of rainfall in the period of the year which is usually characterised by extreme dryness may bring about the requisite combination of temperature and humidity that is needed for the propagation of the cholera poison; but in ordinary seasons the existence of dry heat is, I think, shown to be antagonistic to the progress of cholera.

A remarkable corroboration of this view of the subject may

be found in the history of the field forces under Sir Hugh Rose and General Whitlock in Central India during the campaign of 1858-9. While the troops were exposed to the excessive heats of one of the hottest seasons on record, not a single case of cholera occurred. Men and animals perished by hundreds from exposure to prolonged high temperature, but there was no epidemic of cholera. Mr. Lowe, the Surgeon of the Sappers and Miners attached to Sir Hugh Rose's force, has recorded the following observations(a) in connexion with this subject:—

"Not only had we the hand of the rebel against us, but nature seemed to begrudge us the two most imperative adjuncts of life—air and water. Air we had, but it was so heated and rarefied that it appeared to blow upon us from a furnace, and was perpetually laden with fine sand and dust, and at all times dried up the skin and produced an insatiable thirst and restlessness most painful to endure. Water, too, we had, but in such scanty quantities and of such unwholesome quality that it only appeared to aggravate our sufferings. . . . . Baggage animals dropped down dead upon the line of march, but there was no decomposition. They appeared to dry up in the sun like mummies. Delirium, paralysis, and death caused by the heat began to thin our ranks. The men feared to handle their muskets and rifles, so intensely heated were the barrels. . . . . It appears that intense heat alone is not sufficient to develope the scourge (of cholera)."

If I am not mistaken, cholera but rarely prevails at Mooltan or in the military stations of Scinde, Aden, and some other of our hottest and driest Indian possessions. The army statistics of these places I have not at hand to refer to in support of this statement, but with regard to all official returns of troops, gaols, etc., I would make this observation—that they must be used with extreme caution in attempting to elucidate the natural laws of epidemic cholera. Troops, both European and native, as well as prisoners in gaols, live under circumstances different from those of the surrounding populations. They may be better protected from the sources of disease, as most frequently happens, or they may, from peculiar circumstances, be placed in greater danger than neighbouring populations. Of the former of these conditions I may instance the case of the European troops and one native regiment in Madras, who, during the epidemic of 1860-61, enjoyed almost a complete immunity, while the general population was suffering greatly; and of the latter it is sufficient to refer to the British troops at Mean Meer in 1861 being more than decimated by cholera, while the inhabitants of the adjoining native town of Lahore escaped the visitation.

The general death register of a district can alone help us in the acquisition of precise knowledge regarding the causes influencing the diffusion of epidemic cholera. It is but a few years since that the necessity of establishing a system of registration was admitted by the Indian Government to be one of the crying wants of the age. The mode in which the work is conducted at present can give no very trustworthy results; but it is so far satisfactory to myself and other labourers in the field of sanitary science that a beginning has really been made, and that a prospect exists of the returns becoming trustworthy, when the people shall have been habituated to the system of keeping parish registers of births and deaths.

While differing with Dr. John Macpherson as to the influence which dry heat exercises in the spread of cholera in India, I may remark that the whole of my experience in regard to the subject of the causation of epidemics leads to the conclusion that a high temperature, combined with humidity of the atmosphere, favours the growth of epidemics, and that a low mean temperature of 60° or less retards their development.

As to the supposed favourable influence of heavy or continuous rain, I am by no means sure that an epidemic can be so checked. I have known cholera to spread on the Malabar coast during the height of the monsoon rains. Notably was this the case in the fatal epidemic of 1865; but on other occasions the diffusion of cholera has apparently been checked on the setting in of the heavy rain of the south-west monsoon. Slight showers of rain at the end of the hot season may always, I think, be regarded as dangerous, as they afford the requisite amount of moisture to the surface soil (in combination with its existing high temperature) to favour the development of the germs of the disease.

95, Park-street, Grosvenor-square.

(a) *Madras Quarterly Journal of Medical Science*, vol. ii.

CASE OF DOUBLE CATARACT.

SCHUFT'S OPERATION—ANTERIOR CHAMBERS WASHED OUT WITH TEPID WATER—GOOD RESULTS.

By ALFRED ROBERTS.

Ellen R., a widow, aged 46, was admitted to the Sydney Infirmary on March 5, 1867, suffering from double lenticular cataract. She states that about twelve months previously the sight began to fail in the left eye. Vision became gradually obscured, and in six months there was almost total blindness. At this time similar symptoms commenced to show themselves in the right eye, and progressed to the same termination; she can now do little more than distinguish night from day. The cataract in both eyes is more or less mottled and whitish, the mottling being greater in the left than in the right lens. The general health is good, but not robust. She was ordered a solution of atropine (gr. ij. ad ℥j.) to be applied night and morning for a few days, to take an occasional mild aperient and a light nutritious diet.

April 23.—The weather has been unfavourable for operating up to the present time, but to-day the left eye was submitted to Schuft's operation under chloroform. The nucleus of the lens having been readily removed with Bowman's spoon, a considerable quantity of soft cortical lens substance was found to be left in the anterior chamber and corneal wound. After removing a small portion of this with the suction curette, Mr. Roberts syringed out the anterior chamber with tepid distilled water which had been provided for the purpose; it was done without difficulty and with the most satisfactory result, by reversing the action of the suction curette, the anterior chamber being left clear, and the corneal wound clean.

27th.—Until to-day the patient has been perfectly free from any untoward symptom, but she now complains of a good deal of pain shooting through the eye and temple. Upon removing the bandage, the sclerotic is found to be vascular, and a piece of lens substance is seen in the anterior chamber.

℞ Hirudines iij. Pil. colocynth. comp. cum hydrarg. statim. Haustus sennæ comp. post tertias horas. Guttæ atropiæ nocte maneque applicandæ.

May 13.—Antiphlogistic treatment has been continued to this date, and the eye is now free from inflammatory action.

℞ Haustus quiniæ c. magn. sulph. ter in die.

17th.—Discharged with good sight, to return in a few weeks to have the right eye operated upon.

June 26.—Readmitted. The left eye looks clear, and bears a strong light, but a fine band or two of thin capsule confuses the sight to some extent.

July 10.—Chloroform administered, and Schuft's operation performed upon the right eye, the anterior chamber being washed out by three introductions of the suction curette.

14th.—Bandage removed. No pain or inflammation.

17th.—Not the slightest untoward symptom since the operation.

18th.—Symptoms of pain and inflammation similar to those which occurred after the first operation, though in a much less degree, came on to-day. Antiphlogistic treatment was ordered as on the former occasion, with the addition of a morphia draught at bedtime.

20th.—Pain less; vascularity reduced; loose fragments of lens substance visible in the anterior chamber. The pain being now apparently neuralgic, the patient was put upon quinine three times a day.

August 12th.—No symptom has occurred since the last date. She can read with ease moderate-sized type without the aid of a lens. The upper three-fifths of the pupil is quite clear, the lower two-fifths being obscured by capsule. Discharged.

Remarks.—My object in publishing the foregoing case is to call the attention of the Profession to the plan I adopted to get rid of the fragments of soft lens substance which usually remain after extraction of the nucleus by the spoon. Disliking the reintroduction of this instrument, and being averse to the frequent use of that useful instrument, the suction curette, I determined to try the effect of washing the fragments away as mentioned in the notes. The immediate results surpassed my anticipations, and the progress of the case during the first few days after each operation satisfies me that the procedure is unproductive of harm, if not actually beneficial. The attack of inflammation from which the patient subsequently suffered on each occasion appears to have arisen from the escape of a small portion of lens substance into the anterior

chamber, which had lodged behind the iris, and was thus unaffected by the stream of water. To avoid this evil, which evidently arose from the inapplicability of the curette to the purpose in view, I have instructed Mr. Weiss to make a syringe which will not only be more easy in manipulation, but will also direct three diverging streams into the posterior or anterior chambers at the will of the operator.

Should this suggestion be new to your readers, as it is to me, I trust that it may be adopted for more extensive trial, the result of which I shall look forward to with great confidence.

117, Castlereagh-street, Sydney.

MESSRS. WANKLYN, CHAPMAN, AND SMITH'S METHOD OF WATER ANALYSIS.

In the accounts of water analysis which have been lately laid before the readers of the *Medical Times and Gazette*, our method is not so fully developed as we should desire; we therefore beg to submit the following account of it to the Medical Profession:—

Our process has for its object the estimation of the nitrogenous organic matters existing in water. It is founded on the fact that, with the exception of urea, almost all forms of nitrogenous organic matter can be boiled with dilute carbonate of soda solution without undergoing decomposition, and that they do undergo decomposition when boiled with potash and permanganate of potash. There are three states in which nitrogen may exist in water—as nitrates and nitrites, as ammonia, and as organic matter. Now, if we have a water with these three kinds of nitrogenous substances dissolved in it, and we distil it with carbonate of soda, all the ammonia distils over, and is found in the distillate; any urea present would be split up into ammonia and carbonic acid, so that we should also obtain the ammonia from urea along with the free ammonia. But this splitting up takes place slowly, so that, by noticing in what part of the distillation the ammonia makes its appearance, we can tell whether there is urea present or not; also we may estimate the ammonia without distillation. If we do so, the difference between the amount so estimated and the amount found by distillation gives us the amount due to urea and kindred substances.

Now, if to the water which has been boiled with carbonate of soda, and is therefore free from ammonia, we add permanganate of potash and potash, we get a further supply of ammonia, which owes its origin to decomposition of nitrogenous organic matter. The nitrates remain unattacked. We have now only to measure the ammonia evolved by this latter part of the process, and we obtain a measure of the organic nitrogenous matters present. The ammonia is estimated by Nessler's test. This test is a solution of iodide of mercury in caustic potash containing iodide of potassium. In the whole range of chemistry, we have no test which approaches this for delicacy. It enables us to detect $\frac{1}{10000}$ of a grain of ammonia in 1000 grains of water, or one part in 10,000,000 of water. Perhaps this statement will be more intelligible if put thus—We can detect one grain in 143 gallons, or almost twenty-three cubic feet of water. Nor is this the limit; for by distilling we can concentrate the ammonia, and can therefore detect much smaller quantities than those here mentioned.

Our process has been applied to a very large number of waters, both by us and by other chemists, and has, we believe, never been found to give a good character to a bad water, nor to slander any water that is known to be good. On the other hand, we can at once detect the difference in quality between the water of a river before and after it has passed through a town, even though no other change in the quality of the water can be observed.

Though much criticism of one kind or another has been launched against our method, no one, we believe, has ventured to state that it is not delicate, that it is not easy, or that it does not give constant results. Nor has any person ever stated that a water which has passed successfully through the ordeal of this method is impure as regards nitrogenous organic matter.

London Institution.

His Excellency Sir Robert Napier, G.C.S.I., Commander-in-Chief in Abyssinia, has been pleased to appoint Robinson Boustead, Esq., F.R.C.S.E., Surgeon Bombay Army, the Sanitary Officer to the Abyssinian field force in Abyssinia.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MEDICAL CHARITIES OF LEEDS.

Resuming our notices of the work going on in the provincial Hospitals, we this time commence by giving some account of what is doing at Leeds. This town has long been famous from a Medical point of view; great names are traditional in the place. One of the consequences of this celebrity, more than local, is the unusual prosperity of the school, for the untiring zeal of the teachers, ever desirous of keeping up the ancient reputation of the place, renders it one of the most important of the provincial schools in England. If one finds a flourishing school, the Medical charities are sure not to be neglected. In accordance with this rule, we find that those of Leeds are in a state of high perfection. A Hospital the most magnificent in England is approaching completion, but is to be devoted to the purposes of an art exhibition before it receives its future inmates. A Dispensary recently opened is replete with every convenience and means of aiding the sick; and a Medical School, only opened the other year by Mr. Paget, also contains every modern appliance and means of teaching, especially a rapidly improving museum of comparative anatomy, whose specimens have been chiefly prepared or got together by Mr. Wheelhouse. Besides these, there is now in course of erection, in a beautiful spot not far from the town, a convalescent Hospital, to be built and fitted up after the most approved plans, at the sole expense of one liberal and large-hearted townsman, Mr. Smith, the well-known banker.

Leeds, although now much improved, has been for many years pre-eminently an unhealthy town—a very nest of fever—vividly contrasting in this respect with one which might be expected to be in a worse condition—viz., Birmingham, where fever very seldom prevails. This may be due to various causes, but more especially to deficient drainage, the works now going on being retarded, greatly to the regret of the excellent and efficient Officer of Health, Dr. Robinson, owing to the present unfortunate dispute as to the relative merits of dry-earth conservancy and water sewerage. Another unfortunate circumstance is the plan of building adopted in the town, almost all the houses being erected on the horrid back-to-back system, which effectually precludes anything like efficient ventilation. To provide for this rifeness of fever, there are two charities—one the Dispensary already alluded to; the other a fever Hospital, now a building of some date, and standing in the outskirts of the town. It consists of a single long pavilion, two stories high, and subdivided into small apartments capable of receiving one or two patients. There are day rooms for convalescents. A great part of the work done by the resident Medical officers of the Dispensary is also among fever cases. One of these gentlemen, an old and distinguished pupil of King's College, assured us that a peculiar variety of fever prevailed among the poorer classes, allied to typhoid, but more ephemeral, and not so well marked as that disease ordinarily is.

The old Infirmary, now in its hundredth year, is respectable for one thing only—the good work which has been done in its wards. Now, however, it may almost be looked upon as a thing of the past, when the saying *de mortuis nil nisi bonum* will apply. We may, however, without in the slightest degree belying it, say that its wards are old, narrow, badly ventilated, and much overcrowded, while for out-patients there is actually no accommodation. Still, in these wards there is much worth seeing and noting. Nor do we find pyæmia common in the Hospital, although erysipelas is not rare. A greater contrast, however, between the old building and the new one could scarcely be conceived, and nothing better shows how much we have advanced in hygienic knowledge than a comparison between these two, which stand at no great distance from each other. We shall defer our account of the new Hospital, however, until the wards are opened.

The great aim in the Leeds Infirmary seems to be to secure accuracy in everything that tends to improve clinical investigation, and there is no doubt of the fact that this careful clinical teaching tends to give the school the high character it possesses. Of course it is not to be concluded that the pathological groundwork of Medicine and Surgery is overlooked or underestimated; but the tendency is to bedside rather than to dead-house work.

To aid in the investigation of disease, all modern appliances are called in. The ophthalmoscope especially is extensively used, chiefly by Dr. Allbutt and Mr. Teale, both of whom are known to be admirable ophthalmoscopic investigators. Nor is it with regard to optical derangements or ocular lesions alone that information is sought in this way, the apparatus being used for the purpose of obtaining some knowledge of the general bodily or cerebral conditions. The papers published by the two gentlemen just named have been in this way of great value. Thus, in meningitis, both acute and chronic, the ophthalmoscope leads one to think both more common than we have imagined. Dr. Allbutt has seen cases of obscure pain in the head, and other doubtful cerebral symptoms, clear up under a gentle course of mercury, when changes of vascularity had been seen in the optic disc, which, however, gradually recovered their normal state. It also induces the belief that many children recover from meningitis. Thus Dr. Allbutt has now three cases under his care where there were very marked changes in the disc, constituting what would be called stages of optic neuritis, and which have recovered under cod-liver oil and iodide of iron. Had it not been for the ophthalmoscope, no one could have asserted that these cases were really instances of meningitis. He has also a boy, aged 6, now under his care, who was brought to him six weeks ago with symptoms of general weakness and mal-nutrition. There was found strangulation of the papillæ, and head symptoms were prognosed. These came on *three weeks after;* vomiting, strabismus, etc. The patient had then made good way with oil and iodide of iron. The patient will probably get well. So, again, the temperature of the body is always investigated, usually by Dr. Allbutt's most excellent little self-registering thermometer. There is one caution which might be given in connexion with the use of this thermometer, which is now being extensively employed throughout the country. To admit of portability, its tube is made as short as possible; consequently, if it be brought in contact with any medium of a rather high temperature, say above 120° Fahr., the mercury has not room to expand, and the bulb gives way. We give this caution as, unthinkingly, many men use them for higher temperatures than they can bear, but the slightest forethought may guard against such an accident.

From certain thermometrical observations made by Mr. Teale, he has arrived at the conclusion that in many instances disease may be recognised by local changes in temperature, as, for instance, when it is suspected that a joint is inflamed, the comparison of its temperature with that of the healthy one on the other side may lead to a correct diagnosis. But as the local variations are sometimes slight, although occasionally amounting to 4°, 5°, 6°, or even more, the ordinary thermometers fastened to the joint by strips of adhesive plaster are not sufficiently delicate to detect them readily; accordingly a thermo-electric pile capable of registering very minute variations has been constructed, and, from what we have seen, is likely to lead to highly important results. The speedy detection of the disease enables it to be treated in a more tractable stage than ordinary, when the subcutaneous injection of morphia is found to have a wonderful effect on the inflamed joint.

There is no special ophthalmic ward or Surgeon, but the patients of this class are distributed among all the officers of the institution. Mr. Teale has, however, paid much attention to the subject, and his plan of ascertaining and permanently recording the extent of the field of vision is very ingenious. He places the patient opposite a black board marked by a couple of concentric circles with two diameters cutting each other at right angles; on a little slip of paper he has a similar arrangement of lines. He then, by moving about a bright point on this black board, the eye of the patient being kept fixed on the centre of the circles, ascertains the exact outline of the field of vision, marks it on the board, and thereafter transfers it to paper. One most interesting record of this kind we saw, the great peculiarity of the case being a tendency on the part of the field of vision to assume a changed outline at different times. The case came under the care of Von Graefe, who, corroborating Mr. Teale's diagnosis, pronounced it to be one of retinal dropsy.

There is nothing more striking in the Surgery of manufacturing districts than the immense number of children distorted by burns. Labour is highly paid for, and the little things are left by their mothers either in the charge of nobody or of somebody not much better, if not worse, than nobody. Hence all sorts of accidents are continually happening; the infants come into Hospital horribly burnt, and, if they survive, the subsequent contraction of the cicatrix gives rise to dreadful deformity. The late Mr. Teale, as well as his son, Mr. T. P. Teale, set themselves at work to remedy these distortions by means of plastic operations, and the amount of success which they have achieved in this direction is well shown by a valuable volume of photographs contained in the library of the school, contrasting the conditions of the patients operated on before and after treatment. We are not, however, sure that this plan of operating gives results equal to what we have elsewhere seen produced by elastic tension, for unfortunately the frequent occurrence of such cases is not limited to Leeds.

It is curious, that go where you will through the provinces, you will almost invariably find two modes of amputating the thigh rarely met with in our London Hospitals. These are by Teale's and Carden's methods; the former when the limb is to be removed somewhat high up, the latter when low down. As might be expected, we saw some admirable specimens of Teale's operation at Leeds, where complete and exact apposition had secured splendid stumps. In performing this operation great care must be taken to make the rectangular flaps in exact accordance with the rules laid down; otherwise the result will be disappointing. In Carden's operation the flaps are mostly of skin. A mode of amputating limbs, pointed out to us by Mr. Samuel Hey, is worth bearing in mind. Some men are still fond of the old circular operations, but in certain positions, as low down in the leg or forearm, the rolling back of tissues having a smaller capacity on parts of greater dimensions, as for instance, the ankle compared with the calf, must give rise to considerable pressure on, and it may be even death of, the stretched tissues. Mr. Hey, therefore, recommends two longitudinal incisions along the side of the arm or leg, immediately after the circular cut has been made, thereby converting the circular into a flap operation, but securing better cover for the bones than in the ordinary flap amputations. We saw some excellent stumps the results of this plan of treatment.

Another *modus operandi*, rather uncommon elsewhere, but a favourite at Leeds, is, in opening a circumscribed abscess of bone, as in the head of the tibia, to use instead of a trephine a carpenter's auger, a much more powerful instrument. The same plan is adopted under other circumstances when any opening in bone is required, as for the removal of sequestra, etc. The results are excellent. In dealing with fractures the tendency is to leave them as much as possible to the curative powers of nature. For a considerable period after they come into the Hospital nothing is done beyond keeping the bones in proper position by means of pillows; at the proper time the limbs are encased in starch bandages. There is also a tendency to this mode of treatment—*i.e.*, to leave the joints alone as much as possible—in many other provincial Hospitals. Carbolic acid is much used in the ordinary way as a lotion here, but we saw no fractures treated on Lister's method, although we believe there have been such.

Some little time ago Mr. Nunneley proposed to employ metallic compressors for the arrest of hæmorrhage after operations. Each vessel was to be seized and held by a little pair of spring forceps until all bleeding had ceased. The plan was tried in several cases, but does not seem to have produced an unusually good result. This well-known Surgeon is also a great advocate for the reduction of dislocations by manipulation instead of by sheer strength, in which we cordially concur with him. The consequence is that this mode of reduction is in Leeds generally attempted before anything else is done.

Mr. Nunneley has also acquired considerable reputation by several operations for the removal of the whole tongue attended with success. Unfortunately we did not see any of these cases, but Mr. Nunneley's mode of operating is as follows. A sharp-pointed curved needle about four inches long, armed with a double portion of the wire rope of an écraseur, which should be attached to it by a string, is to be introduced below the chin in the median line, so that it comes out in the floor of the mouth close to the frænum; the needle is to be cut off by dividing the string, and the loop of the rope pushed over the tongue and fixed in an appropriate position, from which it is to be prevented from slipping by the introduction of harelip pins made to project from the back part of the tongue. By gradually tightening the rope the whole organ is removable without much hæmorrhage or subsequent discomfort. The raw surface ordinarily heals with surprising quickness.

The clinical teaching is performed by all the Surgeons, and to secure proper attendance the students are divided into four groups, one for each Surgeon, and a register of their appear-

ances kept. After having studied so many months under one Surgeon they are transferred to another, and so on. This plan is also adopted at some of our metropolitan Hospitals, and ought, we think, to be extended to them all. Looking over the last year's report of this institution, we observe an improvement in one rather important point, effected by the present House-Surgeon, Mr. Bradley. At one time it was the custom to group all amputations of the thigh together, making no distinction between the primary and the secondary operations. Now, as Leeds is surrounded by manufacturing towns and railroads, a considerable number of amputations for injury become necessary; for instance, five took place in 1866, whilst the operations for disease were ten in number. Of the former all died, of the latter five survived. The statistics of the Hospital were vitiated by the former method of registry.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, MARCH 28, 1868.

STOPGAP LEGISLATION.

Any one who reads the daily papers must be struck with little facts which turn up from time to time, and which may well raise doubts as to the soundness of some late movements of the Legislature.

First of all, let us call attention to the uproar made by poor ratepayers against the ratepaying clauses of the Reform Bill. It seems from the report of a public meeting at Hackney that the landords of tenements in low districts, who have hitherto paid the rates themselves, refuse to deduct the amount from the rents now that the rates have to be paid by the tenants. The result of this is that the occupier of a house at 5s. per week, or £13 per annum, is forced to pay 11s. 8d. per quarter additional in the shape of rates. Let us just notice, by the bye, that the quack remedy—equalisation of poor's rates—really means the endowment of the owners of poor tenements at the East at the expense of the industrious ratepayers of the West-end. The owners of these artisans' dwellings at Hackney, who already draw an extortionate profit in the shape of rent, first of all succeed in getting their own rates lessened by making the West bear part of the burden, and then shift the remainder to the backs of their own tenants, and quietly pocket the amount they used to pay as rates.

Well, by this ratepaying clause, and the landlords' action thereon, we are assured by Mr. Edmond Beales, M.A., that "hundreds of families are reduced to beggary." Thus we see that to hundreds of ratepayers 11s. 8d. per quarter is an extra charge which reduces them to beggary; and that they have neither the spirit nor the means to secure a more equitable tenure of their dwellings.

"But," continues Mr. Beales, this "trickery and subterfuge" are depriving the people of their "rights." Let us just glance at a few of these "rights" which are under discussion at the present instant.

First is the right to get drunk on Sundays. We have no right, it is said, to shut the doors of a gin-shop on Sundays against Bill Sykes unless the doors of his club are closed against Mr. Thomas Hughes, M.P. We confess we see a very great difference. Mr. Hughes is a ratepayer, not a rate-eater. We have the misfortune to live near a public-house, whose flaring gaslights on a Sunday evening show it to be the rendezvous of the poor of the neighbourhood. But those people who think it hard to be hindered from getting drunk at their own expense on Sunday are not ashamed to come to be cured of the consequences at the public expense on the Monday.

Every Dispensary is crowded on Monday with applications for relief from the effects of Sunday debauchery. They have a "right" to relief in medicine, attendance, and comforts at the expense of the ratepayer; but the ratepayer has no "rights" over them.

The struggling Medical Practitioner is conscious that the attic in which his children sleep is too close; he would like to dismiss the lodger from the first-floor, and give his children breathing space; but in comes the collector and sweeps off his little hoard of savings. For the new Metropolitan Poor-law Hospitals are to be paid for, and it is not right that a patient should have less than 1000 cubic feet of air—that is to say, the ratepayer's own children must lie three in an attic seven feet high, eleven long, and eight broad; but two of such attics knocked into one would not suffice to accommodate one nymph who has come under the Contagious Diseases Act. These poor things want a good deal of air, which the ratepayers ought to give.

The Medical ratepayer may not be able to afford his wife and daughters so long an autumn trip to the sea as their health requires; but he sees the journeyman tailor going off in excursion vans every Monday in summer, with the blessed conviction that if, during the slack season, work be scarce, every Briton has a right to be supported by the ratepayers.

The Medical ratepayer works every day and all day long—and all night too, if need be. But his rent is raised, and the price of houses enhanced by the artisan, who claims the right to work only for so few hours, and at such a rate, as his trades' union may dictate. But the trades'-unionist, when sick or destitute, has his rights over the pocket of the ratepayer.

There are other "rights" which the rate-eater claims a the expense of the ratepayer. For instance, an Irishwoman requires her children to be treated for small-pox or scarlet fever at home in the midst of a crowded lodging-house, and refuses to allow them to be sent to a Hospital. Of course the parish Doctor must attend at the ratepayers' expense, and if wine or food be needed it is supplied as well to these people, who claim a right to infect a whole neighbourhood.

That "everything necessary shall be done for curing the sick poor" is right; but, adds Lord Devon, "these sick poor have to be supported by the ratepayers, many of whom are often poor themselves," and justice demands that what is for show or symmetry ought not to be extorted. Cleanly and efficient management and good discipline cost less in a workhouse than dirt and disorder; but palatial Hospitals are a blunder on all grounds. Much as may be made of the shortcomings of workhouses, of chairs without backs, of dirty towels, one thing must be remembered—viz., that the most costly Hospitals cannot show such a low mortality as some of the slovenly sheds and outbuildings which do duty for workhouses.

THE NEW KNAPSACK.

We are glad to find, from a War-office report which we have been permitted to see, that the new knapsack or valise for the army is a great success. It was tried very fully during the summer, and again, after alterations had been made in the details of the fittings, at the end of the year. In the report referred to, the opinions of the commanding officers, and in some

instances of the men, of the sixteen corps in which it was tried are given, and the strongest testimony is borne to its comfort and efficiency. As now finally recommended, this new equipment is of an extreme simplicity; it will fit any man, and can be adjusted and put on and off with great facility. It consists simply of a pair of slings, made broad over the shoulders, crossing behind like a pair of braces, and supporting a bag or valise which rests in part on the sacrum. In front the slings also support the pouches with ammunition, and by the most simple means the weights are distributed and carried on the strongest parts of the body. The chest and arms are entirely free from compression, and, if the plan be finally adopted, the infantry soldier will no longer be in danger of injury to his heart or lungs from the pressure of his accoutrements. The appearance of the equipment has been greatly improved; it has now a smart look, and the evident ease and freedom of motion which it gives are much more in accordance with our ideas of how a soldier should be equipped than the present box which is now carried by straps round the arms, and greatly confines his movements. Some additional trials on a large scale are, we believe, contemplated by the Duke of Cambridge, but there is now little doubt that a few more months will see the army relieved from the present inconvenient and antiquated equipment.

THE WEEK.

TOPICS OF THE DAY.

The memorial on the subject of quarantine addressed to the Lord President of the Privy Council, which we publish in another column, will, we hope, induce the Government to adopt the proposal of the memorialists, and employ a Royal Commission to take evidence and report on the whole question. Twenty years ago, when cholera was on its way from the East, our own, with several other European Governments, refused to enforce measures of rigorous exclusion; but since that time there can be no doubt that a change has taken place in Medical and public opinion. The doctrine of the influence of contagion in the spread of disease has gained ground within the last few years. The members of the Cholera Conference which met at Constantinople have declared strongly in favour of quarantine, and it has never been practised more rigorously than at present along the shores of the Mediterranean. So much difference of opinion exists at home on the subject, and the interests at stake, both on the score of commerce and of public health, are so enormous, that it is most desirable that, as far as the present state of science will permit, a definite conclusion on the subject should be arrived at. We know of no better mode of proceeding for this end than by Royal Commission, where different scientific opinions would be fairly represented and the best evidence obtained from all quarters.

A similar movement to that which we noticed last week in the University of Cambridge for the admission of non-collegiate students has been going on at Oxford. The congregation of the University of Oxford have accepted a proposal introduced by the Hebdomadal Council to admit students to the University unconnected with any college or hall, and they have affirmed by a large majority that this class of students shall not necessarily be limited to men of small means. At Cambridge the report of the Syndicate is undergoing discussion in the Senate. One of the chief objections raised to non-collegiate education is that no provision can be made for insuring anything beyond merely secular training. This objection, however, as was shown in the debate by the Rev. the Master of St. John's, comes rather late in the day, seeing that it is competent to any one properly qualified to open an hostel where he alone would be responsible for the religious education or non-education of the students.

The young man Holmes, who murdered the boy at Winscombe "because he felt he must do it," has been tried and acquitted on the ground of insanity. There was ample Medical evidence that he was a person of very weak intellect, and imperfect development of mind and body. Mr. Parsons, a Surgeon, who attended him in 1865, deposed that he was then suffering from melancholy, that he was mentally deficient, and that he thought him incapable of resisting any impulse. Dr. Woodford, who had examined him since the murder, gave similar evidence, as also did Dr. Crawford. One point in the case yields striking confirmation of the truth of what has been frequently affirmed as to the harm done to persons of weak intellect by the publication of the details of crimes of this kind. Holmes told Dr. Woodford that he had no motive for the crime, but he had read the account of the Todmorden murder, and that had induced him to commit the act.

The answer given by the Premier to the very influential deputation which waited on him for the purpose of obtaining the exemption of public charities from parochial taxation leads to the hope that our Hospitals and other charities may be freed from a burden fixed on them by the decision of the House of Lords in the Mersey Docks case. Previously to that decision, from the time of the suppression of the monasteries and the consequent introduction of a Poor Law, charitable institutions have been freed from parochial taxation. In answer to the deputation, Mr. Disraeli said that the question had been under the consideration of Lord Derby's government, but had been postponed in consequence of the late Premier's illness. On his own part, he promised "that the statements which had been made that day should be considered in a spirit adequate to the occasion and to the importance of that assemblage."

In the course of the hearing of the case of Sympson *v.* Rudgard, to which we drew attention last week, a bit of Medical evidence given by Dr. Hillier elicited a spark of forensic wit from the presiding judge, Mr. Justice Montague Smith. Dr. Hillier was asked, "Is there anything with regard to first children which makes them more subject to this (idiocy)?" Dr. Hillier: "It is a fact that the proportion of idiots among first children is much larger than among later children." The Judge: "That shows the wisdom of the Legislature with regard to succession." We commend his Lordship's view of the matter to Messrs. Mill and Bright.

A number of the Surgeons and Assistant-Surgeons of the volunteer service are desirous of obtaining a proper organisation and representation of their service at the approaching Easter review, the annual meeting at Wimbledon, and on similar occasions. The grounds of complaint on the part of the volunteer Medical officers are, that their service is not organised as a service; that no means are taken for providing or officering on any fixed system field Hospitals, when bodies of volunteers act together; and they state, in illustration, that at the volunteer camp at Wimbledon, one volunteer Assistant-Surgeon only is allowed by the National Rifle Association to do duty in the camp, and he is placed under the superintendence and direction of a Surgeon-Major of the regular army. A circular addressed to the volunteer Medical officers has been issued by Dr. John Murray, of the London Scottish Volunteer Rifles, and a meeting is to be held on Tuesday next, at 4.15, at the Grosvenor Hotel, when Mr. Spencer Smith, of St. Mary's Hospital and the Civil Service Volunteer Rifle Corps, will preside.

A case was heard at the Thames Police-court, last week, in which one James Campbell, who described himself on his bills as Member of the Royal College of Physicians and Licentiate of the Apothecaries' Company, but who had in reality no diploma whatever, with his assistant, William Almond, were charged with receiving a quantity of paper, knowing it to be stolen. The prisoners were remanded. We notice the case as illustrative of the impudent manner in which Medical titles are assumed, in spite of Clause XL. of the Medical Act, and also because the name of Mr. W. P. Dukes,

*

a qualified Practitioner, appears in connexion with it. We elsewhere publish a letter from Mr. Dukes on the subject, and we may add that the magistrate, in adjudicating the case, said, "he did not impute any blame to Mr. Dukes."

The French Academy of Sciences have elected Sir Roderick Murchison one of its eight foreign members, in the place of Professor Faraday.

Should the natural history departments of the British Museum be removed to South Kensington—an event which we fear is too likely to happen—an effort is to be made to get them placed under the superintendence of a director, who shall be immediately responsible to a Minister of the Crown, and to remove them from the control of the present trustees. A deputation from the British Association for the Advancement of Science, which included Professor Huxley, Dr. Hooker, and Mr. Busk, had an interview recently on the subject with the Premier. The great objection to the removal of these collections to the fashionable end of town is that they are at once placed out of the reach of the very classes for whose instruction they are intended.

The third exhibition of national portraits is to open on Easter Monday. We believe that Medicine will be fairly represented. The pictures exhibited are to be chiefly those of eminent persons of the present century, but there will also be a supplement of previously omitted portraits.

Professor Hughes Bennett has published, in the current number of the *Edinburgh Medical Journal*, the lecture on the atmospheric-germ theory to which our Edinburgh correspondent recently drew attention. Dr. Bennett is a follower of M. Pouchet, and has himself performed some very careful experiments on vegetable infusions exposed to air deprived, by passing through sulphuric acid, liquor potassæ, etc., of all germs. He finds that if air is rarefied by passing through a boiling fluid, it greatly affects the result. Air passed through the same fluid after it has been allowed to cool is much more fitted for the production of animal and vegetable life. This he attributes to the expansion of the air. He combats the germ theory of disease, and he asserts his belief that animal and vegetable infusoria found in organic fluids during fermentation originate in oleo-albuminous molecules, which, floating on the surface of the fluid, form the pellicle or proligerous matter. The lecture concludes with an eloquent peroration on St. Paul's doctrine, "That which thou sowest is not quickened unless it die," which, according to Dr. Bennett, contains a deep philosophy consistent with all kinds of development—religious, moral, political, and physiological.

We noticed in our news columns last week that the Senate of the University of Edinburgh had passed a resolution declining to unite with the University Court in opposing the admission of the St. Andrews Medical graduates to the franchise of their own University. We hope that the Edinburgh University Court, who, we hear, are a body of eight gentlemen who act independently of the Senate and Council of the University, will not persevere in what will be generally considered a narrow and undignified policy.

We have to correct an error which occurred in our remarks upon the possible and probable candidates for the seats in the Council of the College of Surgeons. The name of Mr. Birkett was mentioned by a mistake, for which we feel we owe that gentleman an apology. Mr. Birkett already fills the office of Councillor, to which he was elected last year. Our notice should have contained the name of Mr. Erichsen, who, in the event of his candidature, will undoubtedly receive a large amount of support.

ARMY ESTIMATES.

Whatever may be the ultimate decision of the authorities on the question of the unification of the Army Medical Department into a distinct branch, as one of the scientific corps, the transference, in the Army Estimates for the coming year, of the charges for Medical officers from vote 1 for the general staff of the army to vote 7 for Hospital establishments is at least a step in that direction.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

In passing to the consideration of the class *Arachnida*, it will be interesting to compare the composition of a typical arachnidan like the scorpion with that of a typical crustacean like the lobster. The body of the scorpion is composed of a quadrate cephalo-thorax, succeeded by a series of somites, apparently only twelve in number, if looked at from the upper surface, but if regarded from the under surface there are sixteen *behind* the mouth. There are distinct tergal and sternal portions of the anterior somites *joined by membranes*, so that the body of the scorpion is more flexible than that of the lobster. The number of somites *behind* the mouth is the same as the number *behind* the mouth in the lobster. In the scorpion the telson is converted into a stinging organ. The limbs borne by the somites are very different in character from those of the lobster. Those which formed the two pairs of maxillæ in the lobster, are converted in the scorpion into locomotive legs. The two next pairs of appendages are also locomotive, and to the succeeding somites there are no true limbs. One distinctive character applies to all the Arachnida—they *never have more* than four pairs of locomotive limbs. The chelæ or claws of the scorpion are *not* homologous with the chelæ of the lobster. They are modifications of the mandibular palpæ, as in the Limulus. No arachnidan masticates: they are all suctorial. The scorpion possesses another pair of organs attached to the anterior extremity; these are the pincer-like antennæ, in front of the labrum. The same modification of structure is seen in the Limulus; so that many of these peculiarities of structure are found amongst the Crustacea.

The Arachnida differ from the Crustacea in breathing air and in never having more than one pair of antennary organs. They also never have stalked eyes. There is, however, the same total number of somites—viz., twenty—in the lobster and the scorpion.

As to the internal organisation of the scorpion, and first as to the alimentary canal. The oral aperture of the scorpion had long been misunderstood. It is excessively small, like a pin's point, and is situated behind the large *labrum;* it leads into a remarkable pharynx. This is a minute, almost microscopic pouch, the two sides of which are compressed; a gullet, wonderfully small, delicate, and transparent, leads from it. It has two closely approximated elastic walls; attached to these walls are certain muscles, which originate from two horse-shoe inward processes of the chitinous integument. Altogether it forms a curious kind of suction pump. In considering the action of this mouth and gullet, we must remember that these animals are very sluggish; they in general lie concealed under large stones, and, having seized their prey—a passing insect, or something of the sort—they probably wound it with their sting, and then, having made a small hole in its body, they apply the mouth to this hole. The pump then comes into operation. The muscles attached to its sides contract, and thus form a partial vacuum; then the muscles relax, and as the body of the prey is held close against the mouth all outward passage from the gullet is closed; the reaction of the elastic walls therefore drives the fluid into the delicate gullet. A similar apparatus is found in the spider and in all the more highly organised Arachnida. The alimentary tube, without any considerable dilatation, runs through the whole axis of the body, and ends in an anus. In its course it receives the ducts of salivary and hepatic glands.

Contrasting with the simplicity and delicacy of the alimentary canal, the *circulatory* organs are marvellously developed. The heart is very large, and is situated in the middle

line of the back; it consists of eight chambers, furnished with valves; an aorta passes backwards and forwards from it, and gives off branches to the different organs. It has as complete a vascular system as any arthropod.

The *respiratory* organs are also well developed. It is in this class that we meet with the first trace of true lungs. Four pairs of apertures, or *stigmata*, lead into a corresponding number of sacs, in which there is a membrane folded on itself, something like an accordion. Vertical muscular fibres pass from the sternal to the tergal regions, and when they contract they compress the segments and drive out the air; then, when they relax, the natural elasticity of the parts causes the air-sacs to dilate, and fresh air rushes in. The blood passes from the aortic vessels into venous sinuses, which are between and surround the pulmonary sacs, so that the fluid is readily aerated. The *nervous system* has nothing in it remarkable or peculiar; it consists of a chain of ganglia, which are somewhat concentrated in the thorax. As to the *organs of sense*, all the Arachnida have what are, to all appearance, simple eyes. In the scorpion there are two large ones in the middle of the cephalo-thorax, and six or eight smaller ones on each side. The cornea, which is thickened inwards so as to form a lens, is a continuation of the chitinous integument. A nerve spreads out at the back part, and between this and the cornea is a transparent substance, which is ordinarily regarded as a *vitreous humour*. But recent investigators think that this is a compound eye, like that of the lobster, for by hardening this so-called vitreous humour, it appears to be made up of a number of bodies comparable to the rods and cones in the eye of the lobster; these are imbedded in pigment and connected with the ends of the nerve. If this very interesting account be true, the characters of the eye of the Arachnida will be entirely changed.

The reproductive process is unlike that in Arthropoda generally. The generative organs consist of longitudinal tubes joined by transverse ones, and opening by ducts at the genital aperture. The males possess penes. The scorpion is viviparous, and its young undergo no metamorphosis.

THE DISPOSAL OF STILLBORN CHILDREN.

The disclosures made at the inquest held the other day in the City as to the mode in which undertakers dispose of stillborn children, or of those whom after death their parents hand over to the undertaker for disposal, suggest rather serious reflections as to the possibility of getting rid of those who have been murdered. The facts then brought forward, especially the discovery of several infant skeletons beneath a stone in a cellar belonging to an undertaker along with the body of the infant on whom the inquest was held, forcibly show that a registry ought to be kept of the deaths of all infants stillborn or otherwise, as well as of their funerals. As matters now stand, stillborn children are too frequently handed over to undertakers, who, for a small sum, undertake to bury them. This is most frequently done by stuffing them in beneath the feet of an adult, or in the way indicated by the inquest referred to—in other words, wherever they can be stowed away. It is not very long since a collection of mummies or skeletons was discovered between the gallery floor and ceiling of a City church, having been placed there by the sexton to save trouble. Again, no year passes by without the discovery of a certain number of dead infants in our parks or squares, most of which prove to have been stillborn, and which have been cast away by the parents, or nurse, or undertaker, to save expense and trouble. One of the seven corporal acts of mercy is the burial of the dead. If some benevolent persons cannot be found to give Christian burial to baptised children and decent burial to the stillborn, it would be an act of economy for the public authorities to bury such children gratis. For mere burial of a stillborn costs 5s.; burial of a baptised child, 7s. 6d.; but then if the body is thrown away, the inquest, Medical witness, post-mortem, and jury cost nearly five pounds!

SIR J. Y. SIMPSON ON THE PYRAMIDS.

It is characteristic of the brilliant and diversified gifts of the great Northern Professor that he should have taken in hand the demolition of a curious notion about the Great Pyramid of Egypt which has been promulgated by Professor Piazzi Smyth, and has found favour with many religious persons. That notion is, that the Pyramid was constructed under Divine guidance to show to all time a correct standard of weight and measure, and that the coffer contained in the central chamber is an inspired measure of capacity, and the base of the Pyramid an inspired measure of length, having a definite relation to the earth's polar axis. Sir James Simpson shows, in a paper read before the Royal Society of Edinburgh, that the Pyramid has all the characters of the huge sepulchral monuments scattered over the earth; that the coffer in its King's Chamber was a sarcophagus; that it contained a body till despoiled by the Caliph El Manoon about 1000 years ago; that it is irregular in form; incapable of being exactly measured, and hence no standard of measure. In fact, any one who desires a treat in seeing how a thorough "craze" is melted away before common sense should read Professor Simpson's paper. The kind of argument of Professor Piazzi Smyth to show that the Pyramid was built by Noah is one which we thought peculiar to the Medical Profession:—Noah was a preacher of righteousness; a just system of weights and measures is righteous; *ergo*, Noah built the Pyramid!

THE EPIDEMIC IN THE MAURITIUS.

Late papers from the Mauritius give by no means a cheerful view of the state of affairs in that unfortunate island. The fever has increased in Port Louis, and numbers among its victims a large proportion of the better classes. The deaths in that town amount to twenty-three per day, which, in an estimated population of 60,000, would give an annual death-rate of 140 per 1000. In the country districts the mortality has been less, and no cases are reported from the north of the island, where the fever was so virulent last year. The disease has, however, extended to the south, and to a limited extent to Savanne and Grand Port. The mortality at Port Louis in January, as compared with the two previous years, was as follows:—

1866.	1867.	1868.
364	571	829

and in February, from 1st to 14th, the latest date of intelligence, 457 deaths occurred, showing an increasing tendency over the previous month. At Flacq, Grand Port, and Savanne, a similar increase of the death-rate has occurred. At Pamplemousses a considerable reduction appears to have taken place, the deaths in January having been 250, and only 16 in the half-month from February 1 to 14. In the other districts the mortality continues at much the same rate as in January; but, taking the whole island, a decided increase is observable, the deaths in January having been 1791, and from February 1st to 14th 1012. In most of the ships in the harbour there is fever, and, notwithstanding all the precautions taken, there is much sickness among the military. There is much distress among the middle classes; resources diminish, and sickness is in most families, with the inevitable expenses. House property has seriously deteriorated in value; taxation has increased; and commerce, except in the absolute necessaries of life, is almost at a standstill. The prospects of the crops, however, are said to be good, and it is hoped that, if they escape hurricanes, the season's harvest will be the most abundant on record. The General Board of Health have been considering the advisability of a complete underground drainage of the town. The intramural cemeteries have been closed against all interments, except in ground previously purchased or in vaults

already constructed. A better system of Medical relief for the poor is about to be organised, in combination with the Poor Relief Committee, who, however, are largely in debt, and their resources for this year will only cover the expenditure for the ordinary poor, so that the Board of Health will probably have to assume the whole responsibility of finding the necessary funds, leaving open the question of the repayment of advances.

THE AMERICAN ARMY REPORT ON CHOLERA, 1867.

We have received, by favour of the Surgeon-General, a copy of the report on the cholera of 1867 as it affected the army of the United States. The report, like those of the Army Medical Department on this side of the Atlantic, reflects the greatest credit on the authors, and is full of points of interest. Out of a total mean strength of 12,780 men in the localities attacked, there were 2708 cases of cholera reported, and 1207 deaths. A mean force of 9083 *whites* gave 1749 cases and 706 deaths; whilst a mean force of 3697 *blacks* gave 959 cases and 501 deaths. There is no doubt but that the disease was propagated from place to place by infected persons, and that quarantine, when it could be put in force, was a bar to its propagation; yet that the influence of "localising causes" was most intense in attracting, aggravating, and perpetuating the disease. First amongst such causes was impure drinking water. At New Orleans the disease was checked by supplying the troops with rain or distilled water. The report is full of suggestions for the purification of water, first amongst which is the addition of the permanganate of potash; but where this cannot be had it is recommended to add solution of perchloride of iron to the water, then enough carbonate of soda to precipitate the iron, and to allow time for the sediment to subside. The manner in which the earth infected with filth keeps up the disease, and the danger of a sandy soil on a rock bottom, are well shown in the account of the epidemic at Hart's Island. Buildings may become so infected as to be poisonous, spite of the most liberal use of every disinfectant known. A steamer crowded with sick troops emitted ammoniacal vapours that could be smelled a hundred yards off. Tonics, astringents, opiates, and stimulants were the chief medicines used for prevention and (except opiates) for cure. Chloroform is well spoken of, from its power of causing bile to be eliminated by the kidneys, as suggested by Dr. H. Osborne.

URIC ACID DEPOSITS.

The question of the origin of uric acid deposits has been so long involved in obscurity that we hasten to lay before our readers a short sketch of a theory recently propounded, and which we think in entire accordance with the facts of practice and the conditions of theory. In a paper which was laid before the Royal Academy of Munich, Herr Franz Hofmann has given an explanation of the deposition of uric acid which is at once reasonable and simple. The urine, he says, may acquire a deposit of uric acid or urates on cooling, and this is said to be due either to the cooling of the secretion below the temperature of the body, or because of the presence of an excess of the uric acid. The first cause must be very rare, because the deposit does not appear till some time after the change of temperature, and because reheating does not dissolve it. The second cause he states is never present. The quantity of uric acid formed by a healthy man ranges in the day from 4 decigrammes to 2 grammes, and it never exceeds this. He has collected the urine of arthritic patients, and, seeing it full of deposit, expected to find a large proportion of uric acid, and yet a quantitative analysis proved that the quantity present was almost too small for estimation. Uric acid cannot be excreted as such by the kidneys, for it is insoluble in the urine, and in freshly voided urine it exists only in the form of urates. Scherer long ago expressed the belief that the uric acid was set free from its combinations by the action of lactic acid, which he thought was abundantly present in the fluids of the body. But Pettenkofer sought for this substance in vain, and in its stead found creatinine. Again, Baron Liebig, in his famous memoir, asserts that lactic acid is absent from urine, and demonstrates that the acid reaction of the secretion is due to the presence of acid phosphates. Herr Hofmann has observed that in neutralising urine less and less alkali is required according as the time since voiding increases. He is therefore led to the interesting conclusion that the uric acid deposited is owing to the decomposition of the urates by the acid phosphate of soda; and he alleges that if equal quantities of solutions of these two salts be added together it will be found that uric acid will be set free by decomposition of the urate, and the liquid from having been acid will become alkaline. Under ordinary circumstances, then, the deposition of uric acid takes place subsequent to the expulsion of the urine; but should the acid phosphates of soda be in excess, the uric acid may then be precipitated before the secretion is voided, and may thus give rise to gravel and calculi. This may also occur through too great concentration of urine. The first cause operates when an excessively albuminous diet containing phosphorus is employed; the second may be brought about by violent exercise, catarrhal affections, and the diaphoresis which succeeds the inflammatory state.

INSPECTOR-GENERAL MOUAT ON THE "CUBIC SPACE" CONTROVERSY, AND THE TREATMENT OF WOUNDS.

Years ago it was settled by Bence Jones that for Hospital wholesomeness, ventilation, and not mere space, was the requisite. The sick may do well in small space with ventilation; they cannot do well in the largest space without it. Spite of this, some too enthusiastic sanitary reformers are always ready with their cry for "cubic space," and charitable funds are taxed to build needlessly large Hospitals. Perhaps the following bit from Inspector-General Mouat's report on the New Zealand War may convince some of our philanthropists that something more than mere space is requisite to keep down Hospital mortality:—

"Much of the success which has attended the treatment of wounds during the war has been owing to the care taken to allow plenty of fresh air to such cases. The huts were most thoroughly ventilated, not by any designed system, but by the warping of the boards permitting the perflation of air in all directions. The number of wounded placed in a hut was kept low, so that each man had 670 cubic feet of air allowed him, and, when placed in marquees, 598 cubic feet. These proportions may seem very small when compared with the allowance made in civil Hospitals. . . . . The men treated in the general field Hospital huts in the Crimea had only 260 cubic feet of air each; in our field Hospital at Queen's Redoubt we allowed to each wounded man in huts 670 cubic feet. The hygienic condition of the Hospital was excellent, and at no time was there perceptible about it any of that peculiar Hospital odour which indicates an impure atmosphere, and from the presence of which Hospital poisoning arises. The general measures resorted to to preserve the buildings untainted were of the simplest kind—open doors and windows, so as to admit fresh air (the coolness thus caused was counteracted by allowing extra blankets to patients), the use of large pans of powdered charcoal placed near and on the beds of patients having extensive wounds with much suppuration; the instant removal of all foul dressings and of the discharges from patients. The use of a solution of 'Condy's Disinfecting Fluid' was followed by excellent results. Wounds bathed with this lost their fetid smell, and this powerfully contributed to keep the air in the wards wholesome. Great attention was paid to keeping the hands of both Medical officers and orderlies from carrying disease from one patient to another by frequent washing. It may excite a contemptuous smile to dwell on such trifling things, and to argue that owing to the [illegible] such matters has proved influence resulted favouring health and diminishing mortality; but the fact remains that from first to last, in the Hospital at Queen's Redoubt, none of the complications so common in

military Hospitals in the field were seen. No case of pyæmia, of erysipelas, of Hospital gangrene, or of tetanus, or secondary hæmorrhage occurred. The most formidable wounds healed readily, and some injuries, reckoned elsewhere the despair of Surgery, did well there. It is true that circumstances were in every other way favourable for restoration to health of the wounded. The men were usually when admitted in most perfect health and condition; they had suffered no hardships to speak of in the short interval between their removal from the field and their reception. Hospital materials of every kind were abundant, and more than all, there is something peculiarly healthy in the New Zealand climate. During the war there was one place at which, for a short time, wounds did not do so well—at Tauranga. Here the wounds were inclined to take an unhealthy action—the flaps of stumps sloughed, secondary hæmorrhage appeared, and the men generally did badly. The cause was evident, and, as it admitted of prompt remedy, Tauranga became as healthy as any other Hospital. The wounded had been placed in a very comfortable house, where plastered walls and ceilings effectually prevented the irregular ventilation which was so beneficial in its effects at Queen's Redoubt Hospital. The house acquired the sickly Hospital smell, which was ineradicable; disinfectants did no good, and yet the cubic space allowed to each patient was not less than 800 feet. The patients were most of them removed from this house, placed in marquees, and at once everything was changed; the most unpromising wounds did well, and no more satisfactory cures could have been achieved anywhere. . . . . The general treatment of wounds may be summed up as consisting in hygienic precautions, simplicity of dressings, abstinence from any interference made in deference to anticipated evil consequences, and dietetic prescriptions, having in view the most recent opinions on such matters; not the former ones, in which everything was voted to be an inflammation requiring to be subdued by starvation. The proper and liberal use of wine has been followed by most encouraging results."

FROM ABROAD. — M. CLAUDE BERNARD ON EXPERIMENTAL PHYSIOLOGY IN FRANCE—COW-POCK IN PARIS.

M. Claude Bernard, in his eloquent "Report on the Progress of General Physiology in France" during the last quarter of a century, urges upon the authorities the giving greater facilities for the study of experimental physiology, which, in fact, is the only physiology of the future. He shows that while France may be said to have originated this branch of study under Magendie, she is now surpassed in its pursuit by the German *savants*, not from any want of the "physiological genius" requisite for its successful cultivation, but from the absence of the necessary material means. His is, indeed, but another form of the demand for the institution of scientific laboratories urged by M. Lorain, to which we have recently adverted, but of course rendered much more weighty, coming from one in so eminent a position.

"By its importance physiology," he says, "well deserves that interest and protection should be accorded to it, for it certainly is destined to become the science of most utility to mankind, as furnishing the scientific basis in agriculture, hygiene, Medicine, etc. Physiological science is necessarily a very difficult science, exacting very complex modes of study. It requires not only similar or analogous instruments to those employed by the chemist and the physicist, but has to resort to dissections and vivisections, and needs laboratories suitable for researches on living beings. France has had the glory of giving birth to the men who have most powerfully contributed to the foundation of modern physiology, and to impel it on the brilliant career it is now pursuing. Nevertheless, it is not with us that the teaching and culture of physiology have assumed their highest development. The best conditions of its progress must be looked for elsewhere. Abroad there have long existed numerous special laboratories, well supported and provided with every necessary means of study. There investigations are multiplied, scientific evolution proceeding with a sure and rapid stride. In fact, mere ideas do not suffice in experimental science, and for their due development means of working and numerous labourers are essential."

The progress of the development of physiology, he goes on to observe, has not only been retarded by these material obstacles, but by others of a scientific character. Its independent existence as a science has been tardily acknowledged, and is not even now generally admitted, so that it has been too often regarded as a mere dependence on human or comparative anatomy or a branch of general physics and chemistry. To this day "its name remains uninscribed on any of the sections of the Academy of Sciences, and its teaching has been neglected and regarded as a kind of superfœtation." Surely the time has arrived when it must be regarded even in France as a distinct science, having its own special problems and requiring its special means of study and instruction. The material obstacles which experimental physiology meets with in France are only the natural consequence of the slight scientific importance that has been accorded to it. As a proof of how the discouragement which has so long prevailed has prevented men of superior minds entering on the pursuit of physiological science, M. Bernard relates the following interesting anecdote:—

"It is now about forty years that a young physiologist arrived in Paris. In spite of his youth, he had already become known by researches in experimental physiology of the first order, and everything promised a brilliant future in the new direction of experimental physiology such as it had been conceived by Lavoisier and Laplace. But on considering the condition of the teaching of physiology as compared with that of the other sciences, and seeing how thankless a career, leading to no end, he was about to engage in, M. Dumas altered his mind and became a chemist. This was the only motive which determined him, as he has since often told me when I have asked him how he came to prefer chemistry to a science which he acquired distinction in at so early a period, and which he has always continued to like so much."

Reverting to his own personal recollections, M. Bernard recalls the times when Magendie was subjected to all kinds of difficulties and oppositions, and which he, as his assistant, had ample opportunity of observing. His own career did not commence in a very promising manner.

"When, some twenty-five years since, I entered upon the career of experimental physiology, I found myself subjected to all the annoyances which were the fate of experimenters. At that time it required to be sustained by a true love for physiology, and to possess patience and courage, often very considerable, in order to keep one's position. As soon as an experimenting physiologist was discovered he was denounced, voted as abominable by his neighbours, and subjected to the pursuits of the police."

Strangely enough, on one occasion M. Bernard found his best protector was a police commissaire. Having introduced a silver tube into the stomach of a dog, in order to demonstrate to Dieffenbach, who then happened to be at Paris, Blondlot's experiments on the gastric juice, the brute escaped from the room in which he was confined, carrying the tube still projecting from the stomach. A few days afterwards the experimenter was sent for by a police commissaire, who, showing him a dog, demanded whether he was the person who had introduced the instrument into his abdomen. He replied in the affirmative, adding that he was delighted to recover the silver canula, which he had given up as lost. This threw the commissaire into a passion, who demanded how he had dared to take his dog as the object of his experiments. He explained to him that the dog had been bought from persons who were supposed to be authorised by the police to sell unclaimed dogs, and that the animal would do very well. In fact, M. Bernard went daily to see the dog until the wound was healed, and so ingratiated himself in the favour of the commissaire and his family that he found him for several years after a most efficient protector against all denunciations and interruptions of his investigations.

The great wants at present in France are well-provided laboratories, and the facilitating the views of young men who feel disposed to pursue a physiological career. At present investigators do not possess sufficient aid, and many useful researches have to be omitted or abandoned.

M. Depaul, the Director of Vaccination at the Académie de Médecine, and who is so firm a believer in the syphilitic deterioration of our present supplies of lymph, has had for him the good luck to meet with a new source within the very walls of Paris itself. Early in the present month it was intimated to him that spontaneous cow-pock had appeared in a cow kept in a stable in one of the Paris streets; and on repairing there he found seven or eight completely developed pustules on the udder. The exact date of their origin could not be ascertained, and they were already old and covered with crusts. However, by raising the crusts by means of a lancet and rubbing a glass plate or two over the wound, he collected some mingled blood and serosity, with which he vaccinated three children by six punctures the same day. Seven days afterwards one of these children exhibited six magnificent pustules, from which other children were vaccinated. These pustules were far finer than those which result from ordinary vaccination. The second child only had one pustule, which was extremely developed. The third child has not been seen again. No variola existed in the house where the cow was, but there were numerous cases of the disease in various parts of Paris at the time.

PARLIAMENTARY.—THE MASTER OF LAMBETH WORKHOUSE—GAGGING IN THE NAVY—MORTALITY IN THE 86TH REGIMENT—SCIENTIFIC EDUCATION FOR THE INDUSTRIAL CLASSES—THE TANCRED CHARITIES.

On Friday, March 20, in the House of Commons,

In answer to Mr. Percy Wyndham, Sir M. Beach, as Secretary to the Poor-law Board, gave explanations as to the share of the Poor-law Board in the recent appointment of Mr. Catch, the master of Lambeth Workhouse. It appeared that Mr. Catch had been requested by the Board to resign the office of master at St. Mary's, Newington, in consequence of an inquiry into his conduct which was conducted by Mr. Farnall. Sir M. Beach, however, said that no grave offence which would unfit him for office had been proved against him at that inquiry. Mr. Catch had been excluded from office for eighteen months, and the Poor-law, believing he had committed no serious offence, had confirmed the election of the Lambeth guardians. Sir M. Beach, however, said he should not oppose the production of papers on the subject.

On Monday, March 23,

In reply to Mr. Serjeant Gaselee, Mr. Corry detailed the circumstances relating in the death of George Addison, a seaman of the *Favourite*, which took place very soon after the punishment of gagging. It appeared that the man came on board drunk, and was very noisy. The senior lieutenant ordered him to be gagged, an operation which was performed at 6 55. He was confined in the steerage, and was visited several times. The gag was applied about a quarter of an hour. At 8.30 the Assistant-Surgeon was sent for, but on his arrival he found the man dead. He was the subject of heart disease, and the Surgeon of the ship certified his death as due to the disease, but that it was accelerated by drunkenness and the application of the gag. An inquest and court-martial had been held, the latter upon the first lieutenant and master-at-arms. Both were acquitted. Mr. Corry added: "I was entirely ignorant of the fact that 'gagging' was practised in the navy, and on my attention being drawn to the subject, an Admiralty order was issued prohibiting the practice for the future, and ordering that men, when noisy and violent, should be confined in cells."

Mr. Otway asked the Secretary of State for War whether he had received further information respecting the mortality in the 86th Regiment, lately landed in the Mauritius, and whether he had taken, or intended to take, any steps for the removal of that regiment during the epidemic in that island.

Sir J. Pakington had hoped to have received the official despatches from the Mauritius this morning, but up to the hour at which he had come down to the House they had not arrived. The question was one entirely for the decision of the Commander-in-Chief, but doubtless a very strict inquiry would be made into the whole of the circumstances connected with the case. He could not, however, conceal his apprehension that in allowing the troops to land when they did a very serious error had been committed.

On Tuesday, on the motion of Mr. Samuelson, a Select Committee was appointed to inquire into the provisions for giving instruction in theoretical and applied science to the industrial classes.

On Wednesday a considerable time was occupied in the discussion of a Bill introduced by Mr. Beresford Hope to regulate the Tancred Charities—property left by Mr. Tancred, of Whixley, Yorkshire, for the foundation of studentships in law, divinity, and Medicine at the Universities, and for the support of a certain number of pensioners. The Bill was opposed by Mr. Shaw-Lefevre and others, and on a division it was thrown out by 83 to 69.

NOTES OF A SHORT VISIT TO THE PARIS HOSPITALS AND MUSEUMS.

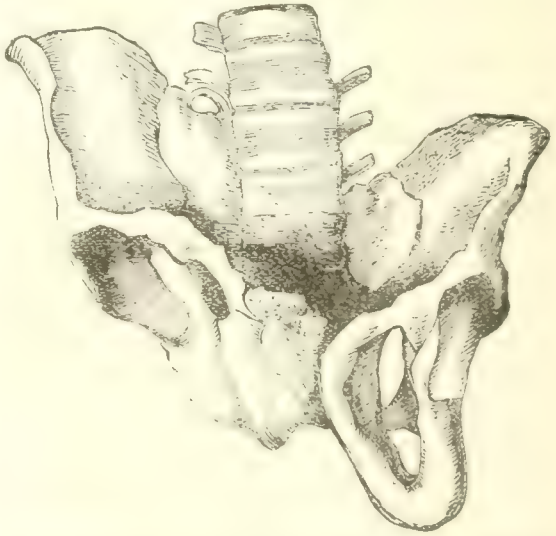
By JONATHAN HUTCHINSON, F.R.C.S.,
Surgeon to the London Hospital.

(Concluded from page 271.)

The Dupuytren Museum—Fractures of Ribs—Fractures of the Pelvis—Detachments of Epiphyses: Rarity of Specimens—Description of a Specimen of Detachment of Upper Epiphysis of Humerus—Colles's Fracture of Radius: Paucity of Recent Specimens—Reference to Specimens—Placard Announcements of Lectures: Numerous Courses on Diseases of the Eye—Puericulture.

THERE are more and better specimens of fractures of the ribs than I have ever seen in any other museum, but none of them call for special notice.

Amongst the fractures of the pelvis, nearly all of which are recent and from patients who died from the accident, there is one which is most remarkable, and doubtless unique (13 F, presented by M. Veillemier). It is the pelvis of a patient who recovered after a vertical fracture through the right side of the sacrum (through the foramina) and through both rami of the os pubis, and with permanent displacement of almost the whole innominate bone and part of sacrum nearly two inches upwards. Bony union is complete, and the pelvis presents a most extraordinary want of symmetry. This case should be kept in mind in dealing with cases of doubtful diagnosis with unusual deformity about the hip.(a)



I could find in the whole Museum but one specimen described as a detachment of epiphysis. There are several others not so described, which are doubtful. Thus No. 109 (Dupuytren) is a plaster cast stated to show the character of the deformity after fracture of lower part of radius. It looks

like the arm of a young person, and more like the deformity of detached epiphysis than that of Colles's fracture. So again in No. 108 G (presented by M. Lize, of Mans), although described, and correctly so, as a fracture of the lower part of the radius, the line of lesion observes very accurately that of epiphysal union, and the bone looks like that of a young person. The age is not mentioned, but probably it is from a patient just about the age when union becomes perfect.

The one definite specimen referred to shows a complete detachment of the upper epiphysis of the humerus. It is stated to be from *un jeune enfant*, but the exact age is not given, probably from 12 to 14. I was much pleased to find that it confirmed the description which I have given as to the important fact that in these accidents the periosteum (very thick at this part) is stripped off from the end of the shaft of the bone, and remains attached to the epiphysis. To this fact we owe it that these injuries rarely involve the adjacent joint,(b) that they leave more muscles attached to the epiphysis itself than the anatomist would expect, and, lastly, that they endanger necrosis of the denuded extremity of the shaft. No specimen could possibly illustrate these statements better than the one referred to. The French usually surpass us in the care with which they preserve the relations of parts in their preparations, and in this instance, instead of having a bare macerated bone, we have the scapula, clavicle, etc., with the detached head of humerus left *in situ*. From the humeral head there depends an empty sleeve of periosteal structures, half an inch long at all parts, and much more at others. We owe this valuable specimen to M. Champion, of Bar-sur-Ornian.

Those who are acquainted with the extent of discussion which has taken place as to the exact nature and position of the fracture of the lower part of the radius known as Colles's, will be astonished at the paucity of materials which our museums contain. Colles, at the time he described it, proceeded solely upon his knowledge of symptoms in the living, having never dissected a specimen. I was much disappointed at Dublin last summer to find that the museums contained exceedingly few recent specimens, especially as very definite statements have come from the Dublin school. In the Dupuytren Museum I find only six specimens. Recent specimens are so infrequent, that I will briefly mention those that are here.

No. 108 A is from a woman who died of cholera on the twentieth day after her accident, and was presented by M. Béraud in 1849. It shows a transverse fracture of the lower part of the radius, the line of fracture being about an inch and a half above the joint, but higher on the outer than on the inner side. The description states that there is a longitudinal fissure in the posterior surface of the upper fragment. The upper fragment would appear to have been somewhat impacted in the lower one. Union is in progress.

No. 108 B, presented by M. Jobert de Lamballe, shows a fracture of the lower third of the shaft passing very obliquely to within an inch and a half of the joint. It can scarcely rank as a fracture of the carpal end (Colles's).

No. 108, also presented by M. Jobert de Lamballe, is designated as "transverse fracture of the lower extremity of the left radius, with displacement of the lower fragment backwards." There does not now appear to be much displacement. The carpal fragment is somewhat crushed, and the styloid process together with its shoulder broken off. No impaction.

No. 108 D, again presented by the same industrious Surgeon, is described as "fracture of the lower extremity of the right radius, transverse, and with penetration." The line of detachment gapes in front, the lower end of the upper fragment projecting forwards. It looks exactly like a cleanly detached epiphysis; but as there is no information as to the patient's age, I must not venture an opinion.

No. 108 E, still presented by M. de Lamballe, "fracture par pénétration de l'extrémité inférieure du radius gauche, cal au 12ième jour." In this specimen, the line of fracture is oblique, and the lower fragment is much comminuted. There is not at present any penetration.

No. 108 G is designated "Fracture de la partie inférieure du radius." It is not in either catalogue, being a recent addition. The line of detachment observes almost exactly that of epiphysal junction. I should conjecture that it is the bone of a young person, just at the period when consolidation was about to be completed. Its surfaces do not show any cartilage.

No. 108 F, presented by Jobert de Lamballe, shows a comminuted fracture of the carpal extremity of the radius. The patient died on the tenth day. The styloid process and its base are detached by a line of fracture which runs obliquely upwards. At right angles with this a transverse fracture crosses the carpal end of the bone about the third of an inch above the joint. There is no displacement of this lower fragment, and no disruption of the soft structures between it and the ulna.

Thus it will be seen that the data accessible here do not support the statements of those who assert that the line of fracture observes, as a rule, any one direction, or that the kind of displacement is uniform. They show that comminution of the lower fragment is not infrequent, and lend no support to the belief that impaction is an ordinary cause of difficulty in reduction. They also suggest the possibility that some of the supposed examples of accurately transverse fractures may have been detached epiphyses, but upon this I must not insist.

Announcements of Lectures, etc.—It is worth the stranger's while just to look over the numerous placards posted in the yard of the Ecole Pratique (close to the Musée Dupuytren). The French have gone further than we in the art *d'afficher*, and it extends to Medical as well as to general matters. The stage curtain at some of the best theatres is covered with advertisements, and at every Hospital large handbills announce the several courses of lectures. An immense board near the Museum door displays, however, the largest collection that I have seen, and a glance at it may give a good idea of the activity of Medical teaching here. With feelings of envy the English Surgeon may notice no fewer than seven courses of lectures on the Eye and its diseases, and amongst the lecturers the names of Sichel (father and son), Meyer, Richet, Galezowski, and Giraud Teulon. He would be hard set in London to find one single course on this subject likely to be at all complete or in detail. Two lecturers, Dr. Rochard and Dr. Camille Miot, announce courses on the Eye and Ear together. Most other specialties are also well represented. One of the placards introduced me to a new science. M. le Dr. Caron will give on Sundays, at two o'clock, a course of lectures on PUERICULTURE, chiefly concerning himself with the "*alimentation des nouveau-nés*." It is only right that I should add, in connexion with the day on which these lectures are given, that they are public and gratuitous.

(To be continued.)

(b) Since writing the above, I have found a detailed account of the case. The boy was aged 11, and the injury was occasioned by his arm being caught in a wheel. The skin was much torn, and there was a wound in the axilla so deep that the bone could be touched. No fracture was detected. Inflammation about the injured parts followed, and the boy died on the twenty-second day. Neither muscles, artery, nor nerves were torn. The epiphysis was completely and cleanly detached, and with a displacement of several lines. The capsular ligament and synovial membrane were opened in part.

ABYSSINIA.

A CORRESPONDENT writing from the Camp, Senafé, Sunday, March 1, says:—

I am afraid I must only write you a very shabby letter this time. I have just received orders to go on with my field Hospital at once to the front, and I have not now a moment to spare. Sir Robert Napier is at Antalo to-day, and it is expected that he will push on to Magdala, which is only 140 miles off, without delay; if so, he should soon have the prisoners in his hands, and the only difficulty will then be to obtain those with King Theodore himself. Many are very sanguine that we shall be out of the country before the rains commence in June, but, of course, it will much depend on the movements of the enemy. So far the country is friendly and supplying all it can. It is a fearfully difficult place for an army to operate in, on account of the want of roads, supplies, etc., and I think, so far, the chief has done wonders in pushing on so well, though he is, I believe, a good deal abused by the English papers. Dr. Currie is here, and also Martin, his secretary. I think they will be much liked by everybody, and I hope, as far as the Medical Department goes, all will be well. It promises well, so far. Very little sickness amongst the men, though, of course, we cannot tell how the rains will affect us. A depot Hospital has been set going just in time to be very useful indeed for the sick who are left behind.

Another correspondent, writing from Senafé, February 21, 1868, says:—

I received your letter the day after my arrival here, and was

very glad to do so, having had little or no intelligence by letters since I left England. The management of the post-office has been very defective. I got very tired of Camp Zoolla before I left, and was very seedy besides; so much so that for a week I went on board one of the Hospital ships, not as a patient, but for the advantage of fresh air and better food. To add to my discomfiture, I have been annoyed by my servants. The first, a German, took French leave, and a little of my kit; the second, a Pole, refused to go to Senafé; and now I have none at all except the Hospital servants. Zoolla is a very unhealthy place. Almost every Medical officer has been more or less seedy. The causes of this unhealthy state are not difficult to seek, and are, without doubt, the high temperature with moisture, the nasty exhalations from the shore, the drinking water, at the same time, being occasionally brackish. The ration, although good in most respects, is not adapted for delicate stomachs, the meat being tough, whilst the tea tastes like an infusion of sloe leaves. The water has been repeatedly deficient, not only for the animals, but also for the men. How the animals have been suffering you may have heard already. Many of the native followers at first fared not much better. When the native general Hospital was opened there were not tents for a fourth of the number of sick, most of whom were suffering from ulcers, diarrhœa, dysentery, or fever. The Land Transport Corps has been very bad, although in saying so I don't mean that the officers composing it have not done their very best, which I suppose they did, with a heterogeneous rabble of all the scoundrels in the East.

A few days after the arrival of the chief there was an evident change in the aspect of affairs. All his doings, which I can form an idea of, have been very judicious—such as limiting the supply of water to officers, the sending away of such sick as were not likely to be efficient in a month, the keeping tents vacant for men and officers *en route* to Senafé, and, most important of all, the hastening up of supplies to this place, and getting rid of the host of natives, who may be compared to a lot of horses in the stable of a needy gentleman—they eat their heads off, and do little or nothing to pay for their feed.

February 22.—I will now endeavour to give you a sketch of my journey from Zoolla to this place. On February 9, I received the "order" to march to Senafé the following day with the establishment and equipment of the 3rd Depot Hospital. I immediately got on shore, and everything went on smoothly till the following morning, when my servant, the Pole, refused to go. He could not walk, forsooth! Happily for me, the camels were not available till the following day, when we started for Koomaylie about 2 o'clock p.m. The party consisted of an Assistant-Surgeon, myself, two hospital assistants, eighteen hospital servants, sixty-seven doolie-bearers, fourteen camels, and seven drivers. An Assistant-Surgeon of the Indian service, with his servant, horse, and two camels, also accompanied us. We had not well left camp before a camel having baggage broke down, being overloaded. One or two more breakdowns, and we got into Koomaylie about 9 o'clock p.m. The camels were ordered for the following day at 10 o'clock a.m., but it was 12 noon before they came, and 2 o'clock p.m. before we got away, and they all broke down, or lay down, shortly after 6, when we were about five miles from Goorroo. The night was pitch dark, and I was led in by the hand. Another man following me leading my horse. We passed through what appeared to me two or three miles of camels and bullocks, often through passages through which the horse could only walk, and such that, if I could have foreseen the risk, I should have preferred staying the night in the pass. However, I dreaded the rain, and could not anticipate that it would clear up in a few hours when the others came, the camels coming in on the morning. We, of course, remained a day at Gooroo, and the following morning we left for Undelwells, leaving behind two camels which were unable to move. We got to Undelwells, sending back for the camels, and this detained us another day there. On leaving for the next station we managed to get the weak camels relieved of their loads, and we got into Raraguddy without mishap. But we were not equally lucky with the last march, for two camels (the weak ones) broke down, and are, I believe, permanently disabled. I will say no more of the difficulties of our journey further than that our apothecary got sick on the way, and had to be accommodated on the back of my horse or carried in a dandie.

Having no more occasion to grumble, I begin a new line, and in doing so must tell you that I would rather have undergone a great deal of hardship than have missed seeing the whole pass, for such it is from Koomaylie to Senafé. I have read no description of it, and do not feel myself competent to give one, at least beyond a few characteristics. Fancy a narrow road in a winding ravine sloping up on each side to a greater or less extent from the perpendicular to the height of from 400 to 600 feet. The rocks present every appearance—at one time they are nearly perpendicular and almost polished; at another time they are irregular and rugged, as if violently rent asunder; often, too, they present round irregular masses, and there are deep fissures, often of four or five inches wide, into which granite has been run. Deep gorges are also seen every few hundred yards. I believe the *Times* correspondent speaks of the "granite rocks," but I have only seen them once. There are often to be seen rounded masses of elevations, which one would presume to be granite, but which on nearer inspection prove to be sandstone. As far as my knowledge of the subject (more bookish than practical) goes, the rocks appear to me to be composed of basalt, metamorphic slate, and trap, with sandstone and conglomerate boulders. The shapes presented are often fantastic, resembling a fort or an old turreted castle. Near our camp here there is a rock not unlike Gibraltar.

The pass on each side is beautifully dotted with trees or shrubs the whole way. There are many spiny shrubs, as the mimosa, the Abyssinian acacia, and one not unlike the sloe. By the roadside one meets everywhere a kind of fir resembling the juniper, with a never-failing parasite, often so large as to mask its character. The latter has smooth ovate green leaves. There is also a tree with leaves resembling the holm oak, one or two related to the apple, and the wild fig is not unfrequent. The aloe is very frequent after Undelwells, and, on getting past Raraguddy, a cactus of from five to ten feet, with upright stem and branches like a fir, is met with. The juniper is frequently seen about here, the wild olive, and what appears to be lavender. We passed a great variety of birds on our route—ravens, hawks, kites, rooks, partridges, vultures, etc. The small birds are very beautiful in shape and plumage. We saw deer several times; the coney, what Huxley would call the Hyrax, twice. With regard to the monkeys, I met two droves of them; the first was about half a mile from Undelwells, two men being present with me. They seem to have shied at us, and one half of them went up one side of the ravine, and the other half skirted along the other, whilst about half a dozen of them were plucky enough to climb some trees in a recess at the bottom of the pass, and began eating the leaves. From their hairy covered scalps I deemed them to be the capuchins. The others were of various sizes, the largest being the dog-faced baboon, with hair and mane like a lion, nude posteriors, and dog-like face. The young ones were often mounted on the backs of the older. The second drove I met while all alone, and it consisted of such a number of ugly brutes that I halted and waited till some of our party came up.

As to the different stations on the route, I must endeavour to give you some idea. You will have seen a picture of Koomaylie in the *Illustrated*, which, though inadequate for the place, will give you a better idea of it than any description of mine. As for the other stations, they seem to have been made where there was any appearance of level ground skirting the sides of the ravine, and consequently they often occupy detached portions of the road. This, with the supply of water in the neighbourhood, has determined their position. With regard to all the stations, the water was excellent, clear, cold, and agreeable to the taste—thanks to Lieutenant Le Mesurier and his pumps (Norton's tubular wells). It was perhaps hard at all the stations, at one particularly, as I was told from sulphate of lime. An Assistant-Surgeon is placed at each station, who attends to the few sick, is sanitary officer for the camp and part of the road, and in more than one instance postmaster. They have each a small Hospital equipment.

The natives, all the way, are a wretched race, clothed in skins, using water which a mule would refuse. They improve a little towards Senafé, and occasionally an athletic fellow, with a spear and shield hung over his back, and a sword of the shape of a reaping hook, is met with. The sword, I am told, is thrown at a distance, and I have heard a story of their wonderful prowess in that way which I do not believe; but I will reserve Senafé and the natives for a future occasion, and dismiss them in the meantime by informing you what is their idea of a steam engine at Zoolla—viz., "We are such a clever people that we have actually caught the devil, and shut him up in an iron box and made him work."

I have hardly got my Hospital opened. There is only one patient as yet, but we expect sixteen from the 4th Regiment to-night, as that corps will advance to-morrow. Dr. Currie

is on his way up, and is detained at Undelwells, Martin, his assistant, having got sick there. I consider Currie to be a model P.M.O. He is quiet, clear-headed, and practical.

February 24.—The Hospital is now opened, and there are now twenty-two patients in it; and, what with taking cases, writing letters, signing indents, and looking after the pitching of tents, I am kept pretty busy. Dr. Currie has not come yet, but is expected to-day or to-morrow.

GOVERNMENT AND VOLUNTARY PATIENTS IN LOCK HOSPITALS.

(*From a Correspondent.*)

As the mechanist, by the action of some hidden lever or eccentric, can reverse or arrest the movement of a steam-engine, so can the reasoner, by supplying an overlooked or omitted fact, similarly affect a train of argument. Unless the premises be correct, their labour is but lost that reason. Unless the facts be fully stated, the logician talketh but in vain.

We have been led into the above reflections by the perusal of a paper, by Mr. Lane, in the *British Medical Journal* of the 15th ult., in which he contrasts the nature of the ailments and the length of time necessary for the cure respectively of those women who are sent to the Lock Hospital by the Medical inspectors under the Contagious Diseases Act, and of those who present themselves at that institution of their own accord as "ordinary patients."

Mr. Lane tabulates the patients under each of these classes, showing the

	Proportion per cent. of admitted cases.		Average number of days in Hospital.	
	Ordinary patients.	Government patients.	Ordinary patients.	Government patients.
Syphilis . . .	80	41·5	53	41
Gonorrhœa . .	20	58·5	36	23

Further Analysis of the Syphilitic Cases.

	Proportion per cent.		Average number of days in Hospital	
	Ordinary patients.	Government patients.	Ordinary patients.	Government patients.
Recent primary sores	41·5	57·1	49	37
Chronic ulceration .	4·5	10·9	55	69
Secondary disease .	40	26·2	56	37
Tertiary disease .	14	5·8	52	55

Mr. Lane's conclusion from the above tables is that "venereal diseases in women subjected to compulsory inspection are so far less severe than in women applying voluntarily, that they require only an average of thirty-one days' Hospital treatment for their cure, whereas the latter require the much longer period of fifty days." And that it may be affirmed, then, that a system of compulsory inspection of women known to be prostitutes, associated, as it must necessarily be, with adequate provision for their seclusion and treatment when found to be diseased, is of the greatest advantage to the unfortunate women themselves; that the early treatment which it necessitates has a most beneficial influence on the character and duration of their disease; that it saves many from local mutilation and many from permanent loss of health."

Now the missing fact which we propose to supply in this chain of reasoning is, as we are informed, that the Medical inspectors under the Contagious Diseases Act are directed only to send such women to Hospital as may be labouring under syphilis in its more directly communicable forms, and hence the preponderance among the "Government patients" of gonorrhœa, recent primary sores, and chronic ulceration, and the smaller proportion of secondary and tertiary disease; as such cases, unless attended by uterine or vaginal discharges, are not, in the present state of our knowledge, considered to be so directly communicable as those in which such discharges coexist.

With this additional fact before us, we are bound to consider the differences in the nature of the cases of the two classes of patients in the Lock Hospital.

We are quite ready to admit the beneficial tendency of the Contagious Diseases Act, and shall be glad to see it brought into fuller operation, so as to apply to the civil population; but we desire to be judicious in our advocacy, and not hastily to attribute solely to it results in which an extrinsic cause has been an important agent.

REVIEWS.

NAQUET'S PRINCIPLES OF CHEMISTRY.

Principles of Chemistry founded on Modern Theories. By Mons. A. Naquet, Professeur Agrégé à la Faculté de Médecine; Ex-Professeur à l'Institut de Palerme; Membre du Conseil de Perfectionnement de Palerme. Translated from the second edition by William Cortis, Student, Guy's Hospital. Revised by Thomas Stevenson, M.D., Lecturer on Experimental Philosophy and Demonstrator of Practical Chemistry at Guy's Hospital, and Examiner in Forensic Medicine at the University of London. London: Renshaw. 1868. 8vo. Pp. xxviii. and 848.

Principes de Chimie fondée sur les Théories Modernes. Par A. Naquet. Two vols. 12mo. 1867. Pp. 443 and 629. Paris: F. Savy. London: Williams and Norgate.

Equivalents, Atomes, Molécules. Thèse présentée et soutenue par Edouard Grimaux, Docteur en Médecine; Pharmacien de 1re classe, etc. (Concours pour l'Agrégation, Section de Chimie). 1866. 8vo. Pp. 109. Paris: Savy. London: Williams and Norgate.

If our author, in the preface to his first edition, had not told us that he trusted that his book would become a classical work for students of Medicine, we should have felt much difficulty in deciding for what special class of readers M. Naquet's "Principles" are intended. There can, however, be no doubt that his work has met with a singularly favourable reception. It originally appeared in 1864 (when we venture to say that not one of our readers out of a thousand had ever heard his name), in the humble form of a small duodecimo volume, and at a cost of six francs. Its sale was so rapid that in less than three years a second edition was called for, which appeared in two small portable and handy volumes, and now it has been deemed worthy of translation into English—an honour that, so far as we recollect, has not been conferred on more than two or three French chemical works during the last half-century.

A careful study of the "Principles of Chemistry" induces us to believe that in its aim it more nearly resembles what Dr. Odling's "Manual of Chemistry, Descriptive and Theoretical," will be when completed, than any other English treatise.

Rejecting, except in their purely chemical relations, the subjects which fall under the head of chemical physics, M. Naquet divides his work into three parts, which are respectively devoted to (1) "General Remarks;" (2) "The Study of Simple Bodies and of their Principal Compounds;" and (3) "Organic Chemistry." In this article we shall almost exclusively confine our remarks to the first and third of these parts.

The first part is mainly devoted to the consideration of such points as Equivalents; the Atomic Theory; Molecular Weights and Atomic Weights; Notation and Formulæ; Radicles and their Atomicity; Molecular Types; Salts, Acids, and Bases; Composition of Salts; Nomenclature; Solubility; Polymorphism, Allotropy, and Isomerism; and Classification.

We may, at the outset, remark that our readers must not be misled by the phrase on the title-page, "founded on modern theories," into the idea that they will here find views of a more advanced nature than they will meet with at home in the writings of Brodie, Frankland, Hofmann (if we may venture to call him ours by adoption), Miller, Odling, Roscoe, Williamson, and the whole band of contributors to that splendid contribution to chemical science, Watts's "Dictionary of Chemistry." Indeed, many of the subjects included in the first part are, as we cannot help thinking, better treated by some of our English chemists than by M. Naquet. For example, the differences which are now recognised as existing in the terms *equivalents* or *equivalent bodies* and *atomic weights* are not, in our opinion, so clearly shown as by Professor Miller, in his last edition. In so bulky a volume as the English translation we might have expected to find some brief historical details regarding the origin and probable fate of the atomic theory. We are merely told that "Dalton was the first who conceived the idea of explaining combinations by the hypothesis of atoms in juxtaposition" (p. 13). A paragraph or two on the history of the atomic theory would have given an interest to the subject which mere scientific details, however accurate, never yield. Every student should at least know that previous to the years 1804-8, when Dalton re-

vived (a) the atomic hypothesis with the view of accounting for the phenomena of chemical combination in definite and multiple proportions, the ultimate analysis of two bodies only gave us the percentage proportions of the different elements in each without in any way further showing any other relation between them. Thus olefiant gas and marsh gas, when examined by Dalton, were found to contain nothing but carbon and hydrogen. He then determined their centesimal composition in the ordinary manner; but he did not stop here, as any contemporary chemist would have done. He found that the ratio of hydrogen to carbon is exactly twice as great in marsh gas as in olefiant gas, the weight of carbon to that of hydrogen being as 6 to 1 in the latter and 6 to 2 in the former gas—or, in other words, that a given quantity of carbon unites with either one or two proportions of hydrogen to form the two different gases. Proceeding on the same plan with other bodies, he found that the quantity of hydrogen which unites with six parts of carbon to form olefiant gas unites with eight parts of oxygen to form water; hence the atom of oxygen was supposed to have eight times the weight of the atom of hydrogen. (b) "The crowning point of Dalton's theory," says Dr. Odling in his Memoir on Atomic Weights, "was reached when he discovered that the numbers which expressed the respective combining proportions of carbon and oxygen with one part of hydrogen also expressed the proportions in which they combine with one another. Thus the ratio of carbon to oxygen in carbonic oxide gas was found to be as 6 to 8, whereas in carbonic anhydride (or dry carbonic acid) it was as 6 to *twice* 8." Such was the origin, some sixty years since, of Dalton's celebrated theory, which, when it was promulgated, sufficed to explain all the facts of chemistry that were then known, converted as by a single stroke a mass of isolated and unconnected facts into one harmonious whole, and raised to the dignity of a science what had previously been a mere experimental art. At that time chemists were acquainted with comparatively few compounds, and in these oxygen was of such preponderating importance that, as Professor Anderson, of Glasgow, in his address (as President) to the Chemical Section of the British Association last autumn, observed, the science might have been almost termed the "chemistry of oxygen." Oxygen is, however, now deposed from its high place, and is supplanted by carbon to such a degree that Kekulé, one of our most distinguished living chemists, has actually proposed for organic chemistry the name of the science of the carbon-compounds. Facts have gradually accumulated, mainly in connexion with organic chemistry, which do not admit of explanation on the Daltonian theory, and the time has come when we must either totally abandon it, or must so completely modify it as to render it substantially a new theory. Sir B. Brodie has already gone so far, as many of our readers doubtless know, as to have attempted to express the exact facts of chemistry by a method of *symbols* in which the idea of an atom has no place. It is much to be regretted that Dr. Stevenson did not add occasional notes on this and various other points in which M. Naquet's work is more or less behindhand. Our author's account of the methods of determining molecular and atomic weights leaves nothing to be desired, except that here also we should have been glad of a few remarks either by the author or editor on the history of the mode of determining the latter. Berzelius, whose results in this department are incomparably more fruitful than those of any other chemist, is positively not mentioned; and Cannizzaro, whose researches on this point in connexion with specific heat have led to the doubling of the atomic weights of most of the metals, shares a similar fate. Surely the reasons for fixing the atomic weights of carbon and oxygen at 12 and 16, instead of at 6 and 8, might at least have been given. No clue is afforded by which a student can tell why the composition of water is represented in most works by HO, but in the most recent books by H_2O; or why nitric acid should be represented in one book as NO_2HO, and in another by HNO_3. On these points we may refer our readers to Dr. Odling's "Memoir on Atomic Weights," (c) and to Dr. Grimaux's excellent thesis on "Equivalents, Atoms, and Molecules," which is dedicated "*à mon ami A. Naquet*," and forms a very useful supplement to his friend's work. M. Naquet's section on "Notation, Formulæ, and Chemical Equations" is (we think unwisely) separated from that on "Nomenclature." Without any reference to the dualistic theory, we have the following rule for the symbolical representation of a compound molecule:—"We have merely to write the symbols of the different constituent elements side by side and to place above each an exponent figure which indicates the number of its atoms present. In writing by symbols it has been agreed to place first that one of the different components which is the most electro-positive." We regret to find no reference to the methods of determining the rational formulæ of compounds—a subject that is admirably discussed in the article on that subject in "Watt's Dictionary." A history of the rise and progress of chemical nomenclature would form a very interesting chapter in the records of science. The well-known salt commonly known as sulphate of potash has at different times been described as *vitriol of potash*, *vitriolised tartar*, *vitriolated nitre*, *sal de duobus*, *arcanum duplicatum*, *sal duplicatum*, *panacea duplicata*, *sal polychreston Glauberi*, and *alkali vegetabile vitriolatum*, the last being the name given to it by Bergman at the close of the last century. In our own days it has passed from sulphate of potash to *sulphate of potassium*, and lastly to *potassium sulphate* and *potassic sulphate*. It is much to be regretted that the editor had not the courage to translate (d) M. Naquet's old-fashioned nomenclature into the chemical phraseology adopted, with slight variations, by all our leading English chemists, and taught in all our recent chemical text-books. The subject of atomicity is succinctly but clearly laid down; the student would, however, do well to study Hofmann's "Modern Chemistry" before he ventures on the more severe matter that M. Naquet sets before him. The same remark may be applied to the section on the "Theory of Types," in accordance with which his whole work is constructed. In connexion with this subject we may incidentally remark that the most satisfactory essay that we ever met with on this subject is contained in the second volume of Gorup-Besanez's "Chemistry," and has, we believe, been reprinted in a separate form.

(a) We use the term provisionally, because the author's statement that Dalton was the first [illegible] Newton held the [illegible] We have [illegible] that, for unexplained reasons, [illegible] both the Daltonian Gases or Weights, and Henry's "Law of [illegible]

(b) [illegible] in which [illegible] and [illegible] Proceeding on the [illegible]

(c) [illegible] so far as they refer to the doubling of the atomic weight of oxygen, may be found in the article "Chemistry," in part 125, p. 461, of "Chambers's [illegible]

(d) [illegible] that [illegible] met in [illegible] potash, etc.

GENERAL CORRESPONDENCE.

MR. KNAGGS AND THE ST. PANCRAS GUARDIANS.

Letter from Mr. S. H. Knaggs.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has just been called to a paragraph in your journal, March 14, which would make it appear that I had been guilty of neglecting a poor woman in her labour. Allow me to state that the Medical officers of St. Pancras are not employed nor expected to attend midwifery (excepting instrumental cases, for which, however, they receive no remuneration), there being regularly appointed midwives for the purpose.

The case in question was attended by a local Practitioner who, I am told, received a fee, and afterwards referred the case to the parish authorities, whereupon an order was given on me instead of upon the midwife and relieving officer. This order was issued at 10.30 a.m., January 29, but was not presented till after 3 o'clock. On my visit next day, I found that the woman (a strong healthy one) had had an excellent time, and was going on unusually well, and I offered either to admit her to the house as soon as she could be removed, or to give an order for nourishment on the fourth day; she did

not accept either, and a month afterwards I was summoned before the Board and dismissed.

I have performed my duties for three years and a half, and although I have at various times been remonstrated with for ordering the necessary nourishment for the poor, this is the first and only charge which has been brought against me.

The paragraph, too, would indicate that I had violated the order of the Poor-law Board, but unfortunately I have nothing to do with that body, for on the passing of Mr. Gathorne Hardy's Act the Medical officers were reappointed temporarily under the old contract; otherwise I might have appealed against the unjust decision. I am, &c. S. H. Knaggs.

5, Upper Craven-place, Highgate-road, March 21.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 10, 1868.

Mr. Samuel Solly, F.R.S., President, in the Chair.

A paper was read by Mr. J. W. Hulke on

A CASE OF EXCISION OF THE WRIST BY LISTER'S METHOD.

The author briefly pointed out the differences of Lister's method of excising the wrist from the common methods by lateral incision, or by a single cut across the back of the joint, and then narrates a case where he successfully employed it. The patient, a groom, had disease of the left wrist, of several months' duration. After other plans of treatment had failed, the author removed all the carpal bones, and the ends of the radius and ulna, as also those of the metacarpal bones, by Lister's method, and the patient recovered such a useful hand that he became coachman to a nobleman, and drove a brougham in town.

The President communicated a paper, by Mr. J. F. West,

ON EXCISION OF THE WRIST-JOINT.

This paper on excision of the wrist-joint gives an account of three cases in which that operation has been performed at the Queen's Hospital, Birmingham, with marked success, and is accompanied by photographs showing the state of the parts some months after the operation. The history of the operation was briefly recited, particular attention being called to Professor Lister's memoir on the subject, by which the cases suitable for operation are more clearly defined, and many minute yet important points in the treatment of the cases subsequent to the operation are made out. Mr. West insisted on the importance of early removal of all the carious portions of bone, but the retention of those parts, either of the radius and ulna or of the carpal bones, which appeared free from disease; he also advocated free separation of the thumb from the rest of the hand during the treatment of the case, so as to counteract the tendency to inversion of the thumb which always follows excision of the wrist; and, further, the early use of passive motion of the fingers, with a view to prevent their becoming stiff and useless. In the first and third cases the whole of the bones entering into the formation of the wrist-joint were removed; in the second, a carious fragment of radius, extending for about an inch above the joint, was alone removed. The patient recovered in each case with a hand having considerable strength and mobility, after a variable period of time, extending from three months to two years.

Sir W. Fergusson said he was much gratified that these papers had been so well received, as it indicated that the resection of joints was coming into favour. These operations had now almost reached their utmost development, as almost every joint had been now resected. Excision of the wrist had given him much thought, and had seemed to him almost less satisfactory than that of any other joint. Still Mr. Hulke's case showed how admirable the result might be. One thing of value had to be noticed in both papers. Neither gentleman had dealt with the joint impatiently; neither jumped to conclusions when the sinuses did not heal, but each sought for the root of the mischief in further disease of the bone; he did not rashly amputate, but removed the diseased structures, and the wound healed. Thirteen months was spoken of as a period to be waited; he might say that three times that term was not too much. As to the operation, he thought he might claim the priority of its performance in London; and he decidedly preferred the radial and ulnar incisions. He avoided cutting the tendons; and if in certain cases he made an incision on the back of the wrist, he carefully cut between them. He was anxious for information as to results even in cases where the tendons had been cut across. He would also remark that Surgery, like history, repeated itself. Thirty years ago, Sir Philip Crampton brought forward the handwriting of a soldier after resection of the elbow as a proof of the great success of the operation; and here we had Mr. West doing the very same thing after excision of the wrist.

Mr. Henry Lee said that allusion had been made to Mr. Holmes's opinions as to the value of this operation; and as his colleague was absent, he thought himself bound to state that since the appearance of Lister's paper they had been greatly modified. He himself had removed the joint by a transverse incision, and the result was satisfactory, as the patient possessed both extension and flexion. He thought that after the bones were removed, the extremities were perhaps kept too far apart.

Mr. Birkett was indebted for the papers, but thought we probably wanted to know more about unsuccessful cases. He would therefore set the example. The practice at Guy's was to remove all dead bone, which they were sure to reach by following the sinuses. In one case narrated there was said to be great difficulty in removing the carious bone; he had not found it thus, as the bones had probably been further gone. His case was a complete failure, perhaps from the age of the patient. The constitution was not strong enough, and they had to amputate.

Mr. Callender said that whilst it was the desire of every Surgeon to do his best for his patients, he must be influenced by age and constitution. St. Bartholomew's was situated in the middle of a large printing district, so that many patients were brought in with injuries to their hands. The boys recovered wonderfully; but, on the other hand, he thought that compound dislocation of the wrist in advanced life was a most formidable injury. The surroundings must all be considered, as success probably depended on careful selection. He would remark, with regard to Lister's operation, that it required great care in details.

Mr. Hulke and Mr. West replied.

At the conclusion of the meeting Dr. J. D. Hill exhibited a patient on whom excision of the elbow-joint had been successfully performed, for a compound fracture of the olecranon process of the ulna.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, March 4, 1868.

Dr. Braxton Hicks, Vice-President, in the Chair.

The following gentlemen were elected Fellows:—Mr. W. F. Butt; Dr. R. Dyce, Aberdeen; Dr. James Ellis; Dr. R. Fegan, Charlton; Dr. A. Godwin; Mr. G. A. Kenyon; Mr. J. R. Lynch; Dr. J. Nicholls, Chelmsford; Dr. G. J. Sealey, Weybridge; and Dr. C. W. Turner.

Dr. Murray exhibited, for Professor Byford, of Chicago,

A NEW PELVIMETER.

The instrument is a modification of Baudelocque's callipers, and by its aid the different diameters of the pelvis can easily and accurately be taken.

Dr. Meadows exhibited, for Dr. Tanner,

TWO OVARIAN CYSTS,

which had been removed by ovariotomy, and although they were believed to constitute the right and left ovaries, yet the patient had menstruated regularly up to the time of their removal, the last period having ceased about a week before the operation.

A discussion ensued, in which Dr. Barnes, Dr. Hewitt, Dr. Tyler Smith, Dr. Snow Beck, Mr. Chambers, and Dr. Murray took part. It was generally considered either that a portion of one of the ovaries must still remain and be in a healthy state, or that the cysts removed and exhibited were really cysts of the broad ligament, separate and distinct from the ovaries themselves. Dr. Meadows was requested kindly to watch the case, and report if menstruation again took place.

Dr. Aveling, of Sheffield, exhibited a

NEW FORM OF SHORT FORCEPS,

the peculiarity being that the handles were much curved

backwards, by which modification they were more out of the way of the operator, and a better grasp was obtainable.

Dr. Murray communicated for Mr. E. Ashbury a

CASE OF RUPTURE OF THE UTERUS OCCURRING DURING LABOUR.

This was the patient's third confinement, and the two preceding ones had been easy and natural. She had been in labour but a few hours when the accident happened. The labour had been without complication, and the only difference between her condition on the present occasion and in her previous confinements was that there was now a much greater abdominal enlargement than existed then. The rent in the uterus was transverse, about four inches in length, situated laterally, and not far from the fundus. The edges of the laceration were inverted, and at the seat of rupture the walls were very much thinned. The author considered the cause of rupture to be over-distension of the uterine walls, whereby they had become thinned and weakened, and that possibly degeneration of muscular fibre had also taken place.

Dr. Barnes believed that Dr. Murphy was one of the first to describe a softening or other alteration of the uterine tissues as the cause of rupture. Since then the tissues had been often examined. He himself had carefully examined the tissues in three cases of rupture, and he had found no more degeneration than that normal amount of granular change of the fibre cells which always existed towards the end of pregnancy as a preparation for solution of the tissues about to become superfluous; certainly, then, although degeneration of tissue might sometimes be present, it was not a constant or a necessary condition. He had asked if the child in the case related had been dead some time before the rupture. He had known this to be the cause of rupture. Where the child was long dead it had lost its resiliency and its fitness for being driven through the pelvis, and thus might become as efficient a cause of obstruction as even a narrow pelvis.

Dr. Graily Hewitt thought it likely that the abortion which had occurred had an influence in producing the irregularity in the thickness of the uterine walls in the case related. The undue size of the head was also an important element in the case. As a matter of practice, he believed it very difficult to ascertain in the early part of a labour whether the head was unduly large or not, but it was a matter of some moment with reference to cases such as this. The rupture of the uterus which occurred in this instance could hardly have been anticipated, and it would appear that the treatment adopted was most prompt and appropriate.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, March 21.

Mr. Liddle in the Chair.

Dr. Letheby read a paper on

THE CHOLERA EPIDEMIC OF 1866 CONTRASTED WITH FORMER EPIDEMICS,

embracing an examination of the question whether in London the water supply had any connexion with the disease. Dr. Letheby's paper is almost identical with the report on the cholera epidemic of 1866 which he presented to the City Commissioners of Sewers in January last. After tracing the routes by which cholera in its successive visitations was introduced into this country, Dr. Letheby gave copious statistics of the disease, and then proceeded to discuss the special characteristics of localisation observable in the epidemic of 1866 in the districts of East London. In reference to the theory that such localisation was the result of the distribution of water charged with choleraic matter to the infected districts, the following are the conclusions to which Dr. Letheby has come: —1. That there is no proof whatever of choleraic pollution of the water. 2. That there was no coincidence of time in the appearance of the disease in the several districts supplied with the suspected water. 3. That numerous districts receiving the same water, but situated at high level, or placed beyond the cholera field, were entirely exempt from the disease. 4. That, even in the very heart of the cholera field, there were places receiving and using the suspected water with impunity. 5. That other places not supplied with the water, but situated within the infected area, suffered equally with the neighbourhood. Dr. Letheby, however, does not wish it to be thought that choleraic matter diffused through water will not produce disease, there being abundant evidence to show that it is often a prolific source of disease; but he is desirous that no "hasty or ingenious hypothesis without solid foundation should take possession of the public mind;" that there should be "a calm, full, and candid examination of the facts;" that the phenomena should be studied "in a philosophical spirit;" and that "the tests of sound induction" should be applied to them.

The discussion was opened by the Chairman calling on Mr. J. N. Radcliffe, who expressed his surprise that Dr. Letheby, in stating the conclusion which had been arrived at by himself and others relative to the influence of the East London water supply, had either passed over the facts which led to that conclusion, or had treated them as assumptions merely. Entering upon the inquiry as to the causes of the outbreak in East London, he had to start from the hypothesis that the causation, whatever it might be, lay not in the water of the district, for there was the official declaration of the engineer of the Company, which had received the widest publicity, to the effect that not a drop of unfiltered water had been delivered to the consumers. So the elements of soil, meteorology, and sanitary condition were all thoroughly investigated; and it was only when, one by one, these proved irreconcilable with the extraordinary localisation of the outbreak, that the water hypothesis was followed up, and found to be the only ascertainable condition which might become capable of propagating cholera common to the whole area of the outbreak comprised, as that was within the limits of one specific source of supply. Mr. Radcliffe disputed the accuracy of Dr. Letheby's assertion, that Stamford-hill and some other places remaining unaffected received water during the outbreak from the same source—namely, Old Ford—as did the immediate area of infection. He further took exception to the confusion of dates as to the real beginning of the epidemic, to the ascription of a "current" to what at Limehouse is virtually a "locked stream," and to the statement that, as a precursor to the last epidemic, there was no cholera in India, the fact being that there was a serious outbreak in Bombay antecedent to the one at Mecca in 1865. Mr. Radcliffe complimented Mr. Orton, of Limehouse, on the position he occupied as being the only Health Officer who had laboriously and carefully worked out for himself, in his recent report on cholera, the facts within his knowledge bearing upon the question of causation. He could only say that he should feel it his duty to suggest that the hypothesis of Mr. Orton that filth was the cause of the outbreak in East London should be examined and tested by the condition in that respect of other parts of London. But if there were objections to the water theory because of the exceptions to the rule of its operation, he could only say that the exceptions to the filth theory were quite as difficult to understand as the hypothesis itself. Fully admitting that filth plays a very important part in exaggerating the force of an epidemic, the chain of evidence necessary to establish its power of originating such an outbreak as that in East London has yet to be supplied. In seeking to discover the agent of causation of such a disease as cholera, the water hypothesis had been adopted by official writers not as an absolute fact, but as a balance of probabilities.

Mr. Orton reiterated the statements contained in his recent Report. He was convinced that the water supply had nothing whatever to do either with the bringing about or the exaggeration of cholera in East London; he believed rather that the water of the East London Company, as supplied from Old Ford, was a source of exemption from the disease.

Mr. Hawksley, C.E., as the result of his experience of cholera in many parts of the world, was convinced that water had nothing to do with the generation or propagation of cholera, except in the extreme cases of well pollution which were sometimes heard of. When cholera was so fatal in the towns of the Black Country that the people were driven to encamp out in the fields, their excreta were all discharged into the River Tame, and, after a run of about twenty miles, the water was pumped direct from this river for the supply of Birmingham, yet not one case of cholera occurred in that town. At the same period Coventry had a supply of beautiful water from deep wells, but cholera was very fatal there. Nottingham had good water, yet suffered badly from cholera; Leicester had no drainage; the water was derived from the gravel soil, and there was no cholera. Mr. Hawksley cited other instances in illustration of his view that cholera was a mysterious agent, settling down like a cloud upon this place, passing over another, decimating a third, and so on. His

notion was that the incubative stage of cholera being about a fortnight, that was the reason why places divided by distances occupying more than a fortnight's journey escaped infection one from the other, whilst increased rapidity of communication favoured the diffusion of the disease.

At this stage (the length of time occupied in reading the paper having thrown the discussion late into the evening) it was agreed that further consideration of the subject should be adjourned to the next monthly meeting of the Association.

OBITUARY.

ROBERT GRAY MAYNE, M.D., LL D., LEEDS.

With sincere regret we have to announce the demise of Dr. R. G. Mayne, on the morning of March 15, at the comparatively premature age of threescore years. He, it appears, had been complaining periodically during a considerable portion of the last fifteen or twenty years of his lifetime: faintings, and other more suggestive nervous symptoms, amounting occasionally to epileptoid attacks, of increasing intensity, had, for a considerable period, afforded cause of painful solicitude to those interested in his welfare. Though naturally of a healthy and hardy constitution, being descended from an especially robust race, it is now the opinion of those who best knew him that an unwise course of literary task-work he had for a long time enjoined on himself had laid the foundation of organic cerebral disease. He had been out attending numerous patients on March 14, and looked as if in his usual bodily condition until a late hour in the evening of that day, when he spoke as to a sensation of tightness in his chest, became very restless and anxious, and expressed a desire for venesection, a warm bath, etc. Through his urgent persuasion the warm bath was had recourse to by the domestics, but it proved worse than useless. Mr. Samuel Hey was then called in; but, on his arrival, he declared his patient to be all but pulseless, and the case utterly hopeless. The influence of the bath, by embarrassing the circulation, seems to have fatally accelerated the termination of the case.

The name of Dr. R. G. Mayne, we feel assured, has already become familiar to every member of the Profession at home and abroad. Indeed, his title to the especial regard of all scientific men, in every country, has been generally acknowledged. His "Expository Lexicon" and his "Medical Vocabulary" are works than which none better deserve the title of "indispensable" for scientific inquirers, or contain a more reliable fund of information derived from great research. The "Expository Lexicon" contains 50,000 scientific terms, ancient and modern, and it is especially rich in the terms used in Medicine and the allied sciences.

Dr. R. G. Mayne was the fourth son of William Mayne, Esq. (a gentleman of high reputation and considerable property), of Greenhead, county of Lanark, N.B., by Jane, youngest daughter of the Rev. Andrew Gray, incumbent of the parish of Strathblane, Stirlingshire. For many generations Dr. Mayne's progenitors had been either in the army or were clergymen of the Established Church. The Grays, of his mother's family, were of Norman descent.

Dr. Mayne studied chiefly in the University of Edinburgh, and partly under the late brothers, Messrs. Lizars; he was also a pupil of Mr. Syme, previous to that eminent Surgeon and teacher accepting the position of Professor in the said University. Whilst on the Continent, he graduated at Leyden with great *éclat*, in the year 1838, having taken a Surgical diploma at Glasgow the year before. For his literary accomplishments, and more particularly by reason of his great work already spoken of, he had the degree of LL.D. conferred upon him fourteen months ago. Dr. Mayne was a man of extensive acquirements, an admirable scholar, and was possessed of many attractive qualities. He was generally respected, and has left an extensive circle to mourn his absence. Dr. Mayne was never married.

Russian Association for the Advancement of Science.—It is one of the encouraging signs of the progress now making in Russia that a body similar in its objects to the British, German, French, and Italian Associations has recently held its first meeting at St. Petersburg. At present it has but six sections—anatomy and physiology, zoology, botany, mineralogy and geology, physics and chemistry, and astronomy and mathematics. It was attended by 600 persons, 400 of whom were actual members, and wound up its highly interesting meetings with a banquet.

NEW REMEDIES.

ARNETT'S QUININE ALE.

(*Lewis Arnett and Co., Manchester-street, London, W.*)

From the earliest period of modern pharmacy it has been customary to use beer as a vehicle for various tonics besides the usual hops; and in dispensatories, English and foreign, we find formulæ for preparing various *cerevisiæ*, medicated with bitter herbs, indigenous and foreign, including cinchona amongst the latter. Some of these have never attained any popularity in this country; but the progress of science seems to promise a change in this respect, since both malt liquors and tonics have undergone considerable improvement in the last half century. Modern ale is purer, drier, better brewed, and freer from indigestible gout-generating elements; and tonics are presented in the definite form of alkaloids, free from extraneous admixture, and in a state in which the dose is capable of being regulated to a nicety. The ale before us is a good ale, well brewed and wholesome; and the one grain of quinine per pint which it contains is attested by the permanent bitterness it leaves on the tongue. There is much to be said in favour of administering tonics with food; and any one who wants good beer, and at the same time a stomachic dose of quinine, will do well to try the ale of Messrs. Arnett.

NEW BOOKS, WITH SHORT CRITIQUES.

Pennsylvania Hospital Reports. Vol. I. 1868. Philadelphia: Lindsay and Blakiston. Pp. 420.

*** We confess to being a little disappointed with this, the first volume of American Hospital Reports which has reached us probably, because, from our high estimate of American practice in its higher grades, we were led to expect something unusually good. Notwithstanding this, it must be said that the contents are valuable, but there is scarcely as much experience conveyed as one would have anticipated from the accumulation of a century. Dr. Meigs writes an introduction, which were it not for the respect we bear one who for so long was at the head of American Obstetricians, we should pronounce twaddle. Dr. Agnew writes on Laceration of the Female Perineum, Dr. Hewson on Acupressure, Dr. Norris on the Statistics of Amputation, and Dr. D. Costa on Narcein and on Wry Neck; but we must abstain from entering farther into particulars, hoping to return to the volume at an early period.

Transactions of the Ethnological Society. New Series. Vol. VI.

*** This volume is, as usual, full of interest both to the scientific and general reader. To the former the names of some of the contributors as Dr Mouat, Mr. Crawfurd, Mr Busk, Dr Collingwood, Dr Shortt, Sir John Lubbock, etc., will be sufficient guarantee for the contents.

Chemical Notes for the Lecture Room. By Thomas Wood, Ph.D., F.C.S., Chemical Lecturer at the Brighton College. Second edition. London: Longmans. Pp. 116.

*** This is avowedly a book for cramming chemistry. Such books, if they are to be of *any* service, even of the most doubtful kind, require the most minute accuracy; but whoever uses this volume should take the opinion of a competent teacher thereon.

Lectures on Joint Diseases, delivered at the McGill University Medical College, Montreal, Canada, by Louis Bauer, M.D., M.R.C.S.E., Professor of Anatomy and Clinical Surgery, etc. New York: Wood and Co. Pp. 96.

*** Dr. Bauer's name, as connected with joint diseases, is not unknown to fame, but his opinions are less widely known. He is opposed to the strumous origin of these diseases, and holds that they most frequently follow accidents in childhood. As to treatment, he divides all cases into three classes—those in the first stage, when rest will suffice; those in the second, when the joint ought to be opened; and those in the third, which require excision or amputation.

The Natural and Morbid Changes of the Human Eye and their Treatment. By Charles Bader, Ophthalmic Assistant-Surgeon at Guy's Hospital. London: Trübner and Co. Pp. 305.

*** This work, for which many cognisant of Mr Bader's great ophthalmological talents have long looked forward, has now appeared, both text and plates. The latter, which are contained in a separate portfolio, are accompanied by a small descriptive pamphlet, and may be had apart from the volume itself. As to the letterpress, that it is full and accurate we need scarcely say; but unfortunately the style is rather too abrupt and irregular to be altogether agreeable. Of the plates—ten in number—four are lithographs exhibiting the structure of the eye and the instruments most frequently employed by Ophthalmic Surgeons; whilst six are most beautiful chromo-lithographs representing the ophthalmoscopic conditions of the optic nerve, retina, and choroid. Although drawn on a much smaller scale than Liebreich's famous productions, we are not sure that they do not represent as faithfully, if not more so than these latter do, the ordinary appearances, seeing that they more closely approximate to the size of the inverted image of the optic disc as seen by the common ophthalmoscope. The work cannot fail to be welcome to all ophthalmologists.

Royal College of Surgeons.—Professor Huxley brought his interesting course of lectures on the anatomy and physiology of invertebrate animals to a close yesterday (March 27). On the conclusion of the examinations now about to commence, Professor Le Gros Clark will deliver a course of lectures on the principles of Surgical diagnosis, especially in relation to shock and visceral lesions.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 19, 1868:—

Bartlett, James, Sidmouth, Devon.
Campbell, William, Cecil-road, Hastings, Sussex.
Crunch, William Henry, Burnham Overy, Norfolk.
Jarvis, Nathaniel Howard, Portslade-by-Sea, Sussex.
Jones, Charles, Carnaby-street, Golden-square, W.
Rigby, George Cardwell, Burnley, Lancashire.
Ross, John Harris, 4, Bodley-street, Walworth, S.
Tuck, John, the Clock-house, Ilford, Essex.
Ward, John Bywater, Denison-hall, Leeds.

APPOINTMENTS.

***** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.**

DAVIS, A. G., M.D.—Surgeon to the Royal Isle of Wight Infirmary, Ryde.

GASCOYEN, G. G., F.R.C.S.E.—Re-elected Assistant-Surgeon to St. Mary's Hospital.

M'DOWALL, R. J., M.B., L.R.Q.C.P.I.—Surgeon to Meath Hospital, Dublin.

RICHARDSON, J. ASHTON, M.R.C.S.E.—House-Surgeon to the Hull General Infirmary.

SMITH, H. SPENCER, F.R.C.S.E.—Re-elected Surgeon to St. Mary's Hospital.

[illegible]

NAVAL AND MILITARY APPOINTMENTS.

ANDERSON, J. A., M.D., Staff Assistant-Surgeon 18th Hussars.—Assistant-Surgeon.

[illegible]

BARRY, J., M.D.—Staff Assistant-Surgeon.

[illegible]

CLARKE, T. H. M., M.B.—Staff Assistant-Surgeon.

[illegible]

CORBETT, R. DE LA COUR, M.D.—Staff Assistant-Surgeon.

COTTER, S. K., M.B.—Staff Assistant-Surgeon.

CUTHBERTSON, R. A.—Staff Assistant-Surgeon.

GALLWEY, M. M., M.D.—Staff Assistant-Surgeon.

GUNNING, J. D.—Staff Assistant-Surgeon.

HARE, G.—Staff Assistant-Surgeon.

[illegible]

LEAKE, J. R.—Staff Assistant-Surgeon.

LYONS, F., M.D.—Staff Assistant-Surgeon.

MCEWEN, D., M.B.—Staff Assistant-Surgeon.

[illegible]

[illegible]

MCNAMARA, W. H., M.D.—Staff Assistant-Surgeon.

[illegible]

POLLOCK, C. F., M.B.—Staff Assistant-Surgeon.

RAE, G. R.—Staff Assistant-Surgeon.

[illegible]

SANKEY, G. F.—Staff Assistant-Surgeon.

SCOTT, R. J., M.B.—Staff Assistant-Surgeon.

[illegible]

STEWARD, J. S.—Staff Assistant Surgeon.

WILSON, W. D., M.B.—Staff Assistant Surgeon.

[illegible]

BIRTHS.

BROWN.—On March 20, at 18, Royal-terrace, Weymouth, the wife of A. [illegible], M.D., of a daughter.

[illegible]—On March 21, at Clifton-villa, Victoria Park-road, the wife of Dr. J. C. Byles, of a son.

[illegible]—On March 14, at 72, Grosvenor-hospital, Hyde-park, the wife of J. [illegible], M.D., of a son.

[illegible]—On March 15, at Dublin, the wife of John Erwin, Esq., Deputy Inspector-General of Hospitals, of a daughter.

[illegible]—On March 15, at Stowmarket, the wife of James Dobson, M.D., H.M. Bengal Establishment, of a daughter.

MACKINNON.—On January 21, at Sydum Bowlie, Punjab, the wife of A. [illegible], C. Mackinnon, 1st Hussars, of a daughter.

MASTERS.—On March 23, at Spring-grove, Isleworth, the wife of M. T. Masters, M.D., of a daughter.

[illegible]—On March 18, at Sheerness, the wife of [illegible], Assistant-Surgeon, R.N., of a daughter.

SMITH.—On March 18, at 129, Buckingham Palace-road, the wife of D. [illegible], M.D., of a son.

[illegible]—On March 14, at St. John's-wood, the wife of T. Stevenson, M.D., M.R.C.P., of a son.

WORTS.—On March 21, at Trinity-street, Colchester, the wife of Edwin Worts, L.R.C.P. Lond., M.R.C.S. Eng., of twins, son and daughter.

MARRIAGES.

DRURY—RIGBYE.—On March 17, at the Parish Church, St. Leonard's-on-Sea, J. Drury, M.R.C.S., of Bushey, Herts, to Lavinia Frances, eldest daughter of the late T. H. Rigbye, Esq., and granddaughter of the late Rev. R. Rigbye, of Horrock-hall, Lancashire. No cards.

HUNT—GLAISHER.—On March 7, at the Parish Church, Lewisham, F. E. Hunt, M.R.C.S.E., to Cecilia, only daughter of J. Glaisher, Esq., F.R.S., of the Royal Observatory, Greenwich.

IRELAND—DE BELIN.—On March 19, at Sawston, Cambs., by the Rev. T. Field, vicar of Pampisford, Edward Ireland, Esq., M.R.C.S.E., Linton, Cambs., son of J. G. J. Ireland, Esq., J.P., Kendal, to Louisa Margaret de Belin, youngest daughter of the late Rev. C. J. de Belin, M.A., vicar of Blakesley, Northampton.

DEATHS.

BIDWELL, H., M.D., at Albrighton, near Wolverhampton, on March 13, aged 72.

DAVISON, N. F. S., M.A., M.D., F.R.C.P., at St. Albans, Herts, on March 23, aged 72.

MACKENZIE, G. W., M.R.C.S., L.S.A., at Thetford, Norfolk, on March 21, in his 42nd year.

SMITH, B., M.D., at Port Orolava, Teneriffe, on March 10, aged 64.

TUCKWELL, DAVID GREGORY, third son of the late W. Tuckwell, Esq., Oxford, at Knap-hill, Woking, Surrey, on March 16.

WALSHE, H. C., M.D., Staff Surgeon-Major, late of the Royal Horse Artillery, [illegible].

VACANCIES.

[illegible]—Physician; Apothecary and Secretary.

[illegible]

[illegible]—Physician.

[illegible]—Honorary Medical Officer.

POOR-LAW MEDICAL SERVICE.

******* The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

[illegible]—Mr. B. B. [illegible] has resigned the Stock District; salary £100 per annum.

[illegible]—Mr. Davies has resigned the Pimley District; area [illegible]; salary £[illegible] per annum.

[illegible]—Mr. A. P. Owen has resigned the Margate District; [illegible]; salary £[illegible].

Melksham Union.—Mr. Christopher Tayler has resigned the Second District, [illegible]; salary £[illegible] per annum.

APPOINTMENTS.

Great Ouseburn Union.—John P. Hunt, L.R.C.S. Ire., L.R.C.P. Edin., to the Great Ouseburn District and the Workhouse.

St. Pancras Parish.—John B. Welch, M.B. Lond., M.R.C.S.E., L.S.A., to the Workhouse.

[illegible]—Harrison Murdoch, M.B. Edin., M.C. Edin., to the Aspatria District.

MUNIFICENT PRESENT TO GUY'S HOSPITAL.—We were last Saturday invited to a private view of a collection of ten large drawings exhibited in the rooms of the New Society of Painters in Water Colours, Pall-mall, which have been made for, and presented to, Guy's Hospital by the artist, John Absolon. It rarely falls to our lot to chronicle an act at once so graceful and munificent as this, or one so calculated to confer a benefit more lasting and be continued. When the rich man gives of the abundance of his stores, it must be the result of a kind and benevolent heart—it is, however, a part of his superfluity; but when a man whose time is his living and the heritage of his family, deliberately devotes weeks of that time, one is struck with the grandness of the gift. We believe it to have had its origin on the application to Mr. Absolon to give them a few prints to hang up in one of the wards of Guy's Hospital. The reflection that to a poor fellow lying on his back these would look like mere holes in the wall, at once turned Mr. Absolon's attention to the desirability of having drawings which could be seen from any part of the ward, and he has accordingly executed a series of subjects of a cheering character, which would serve to remind the sufferer of happier hours, and thereby hasten his convalescence. Two leading subjects which occupy central positions in the room are of a religious character—one a Sunday morning in the olden time, a cheerful subject treated in the artist's usual happy style. The second one is a figure of Mercy knocking at the gate, from the "Pilgrim's Progress." The other eight subjects represent haymaking, gleaning, harvesting, the sturdy reaper enjoying his midday meal, Italians at a fountain with lovely lake and mountain scenery; another represents Swiss peasants about to cross a beautiful lake. Burns and

his Highland Mary presents us with a noble Scotch scene. One subject, named "Suspense," is represented by a fisherman's wife looking for her absent husband after a storm. And the last subject, "Taking Toll," shows us a buxom lass with a basket of fowls on her head passing through a stile, for which she has to pay the not unwilling toll of a kiss to a fine handsome youth who has constituted himself gatekeeper. The material in which they are painted is pure water-colour well amalgamated with gum, prepared by Newman, of Soho-square, and is the same medium as the figures on the Egyptian tombs and the cartoons of Raphael were painted with. It is hoped by the painter that the uniform temperature of the air contained in the rooms will tend to preserve them, but it is to be hoped that the authorities of an institution so rich as that of Guy's Hospital will be able to afford them a suitable covering of glass, which will alone preserve their beauty from the effects of London smoke. As works of art, these drawings are of a high class, and must eventually prove a great boon to those poor sufferers who have the good fortune to be placed where they can contemplate them. The Institute of Painters have kindly allowed the gratuitous use of their room for the exhibition of these drawings for three weeks; and we trust such of our readers as can avail themselves of the privilege will take the opportunity of visiting the gallery.

£350 Damages for the Loss of an Eye.—The case of Stedman *v.* Wells came on for hearing in the Under-Sheriff's Court at Shrewsbury, on Thursday, March 19. The plaintiff had been accidentally shot in the right eye by the defendant's gamekeeper, which obliged its excision, the companion organ at the time of the operation and at present suffering from severe sympathetic irritation. The plaintiff is a master bricklayer, aged 53, earning about 25s. per week. The damages were laid at £1000. Counsel on both sides having agreed that the Medical men in the case—viz., Dr. Andrews, of Shrewsbury, Mr. Vose Solomon, Birmingham, on the part of the plaintiff, and Mr. Wood, Shrewsbury, on that of the defendant—should confer together with a view of coming to an agreement as to the proper amount of damages, the case was settled out of court by payment of £350.

The Fever at Terling.—The late weather has been propitious for the abatement of this epidemic, although it will be long before this fatal visitor takes its entire departure. Some old cases are still in an uncertain state, so that it is impossible to foretell how they may end. The *Essex Herald* writes:—"Two deaths have occurred since our last, that of Sophia, wife of James Marshall, a labourer, aged 40. She had been ill nine weeks, with decided typhoid; four of her children had been attacked, three of whom recovered, but the other, a girl aged 12, still lies with little chance of life. The nurse who attended them has also been attacked. The other case, which proved fatal yesterday morning, is that of George Valentine, aged 29, a strong stalwart man up to the time he was attacked. Ten weeks ago his wife and three children were attacked; one of the children, aged 4, died; his wife and the other children have recovered. The following is an analysis of the deaths and the ages of the victims, from the first case on December 14, up to the present time:—Under the age of 5 years, 5; 5 and under 12, 2; 12 and under 20, 10; 20 and under 30, 12; 30 and under 40, 5; 40 and under 50, 4; 50 and under 60, 1; 60 and under 70, 4; 70 and under 80, 2; total 45; males 17; females 28—45."

Medical Attendance in Clubs.—At a numerously attended meeting of the Friendly Societies' Committee, held at the Midland Institute, Birmingham, on Thursday, the 19th inst., at which a large number of club Surgeons were present, it was agreed that the following notice be sent to the Medical journals and to the members of the Medical Profession practising in this town:—"The Committee on Friendly Societies beg to draw the attention of the Medical Profession to the recommendation in the report on club remuneration, passed unanimously in December last, by the Birmingham and Midland Counties Branch of the British Medical Association—'That the officers of friendly societies be recommended to decline to attend clubs any longer for a less sum than 5s. per head per annum.' They also notify the fact that nearly the whole Profession in the town and suburbs of Birmingham, numbering about 170, have assented to the above rate of payment, and have bound themselves not to become candidates for appointments vacated on the question of this rate, or to accept a fresh appointment below that sum. They now invite all Medical men to put these principles into operation by making an immediate application for this remuneration to the clubs with which they are connected, in order that a satisfactory settlement may be effected during the current year.—C. A. Newnham, Chairman. March 19, 1868."

Acute Hydrargyrismus.—M. Ferrand relates a case recently under M. Monneret's care in La Charité. A woman, aged 20, had, two days before her admission, passed five or six hours in a small room, the window of which was open, where her husband was engaged in evaporating mercury, by means of a portable furnace, from some earth which he had deposited in it long ago, supposing it to contain gold. The mercurial vapours by which she was surrounded caused her to cough, and took away her appetite. Not suspecting anything amiss, she slept in the same room, after quitting it for a while, with the window closed. In the night she was seized with dyspnœa, spasmodic cough, and vomiting, and all the next day had cough and anorexia. In the night, about twenty-four hours after the vaporisation, abundant salivation came on, and next day she exhibited acute mercurial stomatitis, this soon being transformed into sanguinolent ulceration. But the appearance of the tongue varied so from day to day that the affection could never have been diagnosed by it alone. On the fifth or sixth day an eruption having some of the appearances of roseola appeared first on the face and neck, and then became general, putting on somewhat different appearances in different parts. The woman was obliged to remain a month in the Hospital, and, before she left it, suffered from deep-seated pains of the limbs.—*Union Méd.*, March 17.

A New Instrument for Drops.—Often as it has been stated that medicines should never be administered by drops, the practice is so convenient that it is not likely to be left off. It may be interesting to mention, however, that M. Lebey, chief pharmacien at the Charenton, has invented a little instrument which enables drops of different fluids to be given of a uniform weight of 5 centigrammes. Whatever the length or breadth of a tube, the weight of a drop depends upon the diameter of its aperture; and in order to obtain the weight of 5 centigrammes for drops, the external orifice of the tube must have a diameter of 3 millimetres.—*Union Méd.*, March 19.

MEMORIAL ON QUARANTINE.

A deputation, consisting of the President of the College of Physicians, the Director-General of the Navy, Sir William Jenner, Drs. Tweedie, Dickson, and Milroy, had an interview with the Duke of Marlborough at the Privy Council Office on the 17th instant, in reference to the subjoined memorial. His Grace expressed much interest in the subject brought before him, alluded to the difficulties surrounding it in consequence of the conflicting views of different Governments, and stated that for some time past the Privy Council had been considering the question of quarantine in respect of the mail steamers from the West Indies when yellow fever occurs on the home voyage. He assured the deputation that their proposal of a Royal Commission would receive his serious attention.

MEMORIAL ON QUARANTINE, ADDRESSED TO THE LORD PRESIDENT OF THE PRIVY COUNCIL.

1. During the last twenty years the subject of quarantine has, on several occasions, engaged the attention of Government and of the public in this country and on the Continent.

2. In 1848, on the approach from the East of the second visitation of epidemic cholera, several of the European Governments, as well as our own, refused to re-adopt the rigorous restrictions which had been imposed on freedom of intercourse in the first visitation of the pestilence in 1831-2. These had signally failed as a means of defence, and they had, moreover, inflicted serious inconvenience and distress, especially upon the poor and working class of the communities.

3. The General Board of Health in this country presented to Parliament, in that year, a report recommending the substitution of sanitary precautions in respect of merchant shipping and of maritime ports, for the ordinary quarantine detention of infected or suspected arrivals.

4. As much difference of opinion continued to prevail throughout Europe respecting the necessity for quarantine, as hitherto carried into effect in regard not only to cholera, but also to yellow fever and the plague—the three diseases against which it is specially directed—the French Government, in 1850, proposed that an International Conference should be held for the examination of the subject by delegates, Medical and consular, from all the leading countries of Europe.

5. The Conference, which consisted of twenty-four members from twelve of the chief states of Europe, was held in Paris in 1851, and continued its sittings for eight months. From the discordance of opinion among the members on various topics which were discussed, the Conference separated without having arrived at unanimous conclusions on several very important points, and the British Government declined to accede to the report agreed upon by the majority of the delegates.

6. At the end of 1852, when yellow fever was prevailing in the West Indies, several of the Royal Mail Steamers suffered from attacks of the disease on the voyage from St. Thomas to Southampton, and, in some instances, had cases on board at the time of their arrival. None of the infected vessels were sent to the "Mother-bank," or were detained in quarantine at Southampton for more than two or three days. The healthy passengers and crew were permitted to land, and the sick and convalescent

were removed to suitable accommodation on shore. No detriment to the public health appears to have followed, either in Southampton or elsewhere.

7. On the occasion of the third European epidemic of cholera in 1854-55, quarantine restrictions were almost everywhere suspended in consequence of the war in Turkey and the Crimea. It remains, therefore, to be ascertained whether this suspension led to a wider dissemination of the disease, and to a greater mortality from it in continental countries.

8. In 1857 in consequence of the outbreak of a malignant fever (which had existed for many weeks before it was officially declared to be the plague), at Benghazi, on the North Coast of Africa between Alexandria and Tunis, freedom of intercommunication throughout the whole of the Mediterranean and the adjoining maritime countries was, for more than two months, interrupted by the quarantine that was generally established. The disease never extended beyond the Arab district where it broke out, and it speedily ceased upon the adoption of simple hygienic measures among the wretched starving population who were affected.

9. The outbreak of cholera at Mecca and other places in Arabia in the early summer of 1865, and the subsequent extension of the pestilence, as the season advanced, to Egypt and thence to Europe, so strongly impressed the public mind in many continental countries that the Emperor of the French deemed it necessary to propose that an International Conference should be assembled, with the special view of determining what measures ought to be adopted to prevent, if possible, the recurrence of a like calamity. The Conference—which consisted of twenty-four delegates, Medical and diplomatic, representing the chief European States—was held at Constantinople on the 3rd January, 1866, and continued its sittings throughout that year.

10. The results of the labours of the Conference are embodied in a voluminous report which has recently been made public. A rigorous and lengthened quarantine is strongly insisted upon as an indispensable measure for the suppression of the disease in future, and, for this purpose, it is recommended that a comprehensive scheme of lazarets and of health-police be instituted at every large commercial port in all maritime countries throughout Europe.

It is manifestly of national importance that the soundness, or otherwise, of these doctrines be duly investigated, as Professional opinion both in this country and abroad is known to be far from being unanimous on the subject.

11. At no former time have quarantine restrictions against epidemic cholera been carried into effect, in the South of Europe, with such extreme rigour, or to so great an extent, as during the last two years and a half; and there appears to be at the present time a marked disposition generally to the re-institution of more stringent external precautions than have, for many years past, been deemed necessary for the protection of public health.

12. In the course of the winter of 1866-67, and again during the last few months, restrictive measures have been ordered by the Government in respect of several of the Royal Mail steamers, arriving at Southampton from the West Indies, so much more rigorous than were adopted, under apparently similar circumstances, in 1852-53, that it is most desirable that the public should be made acquainted with the nature of the proceedings which are in future to be taken, and with the reasons for their adoption.

13. During last session of Parliament, it was officially declared in the House of Commons that quarantine in this country was resorted to not on Medical or public health grounds, but solely on commercial grounds, and to meet the requirements of foreign Governments; by

Lord Robert Montagu, April 4, 1867.
" " " May 3, "
Mr. Cave May 21, "

14. Much of the uncertainty and obscurity which have always surrounded, and which still surround, the quarantine question is owing to the want of authentic evidence as to the working and the results of the system in those places where it has been most rigorously carried into effect.

15. No Committee of either House of the Legislature has examined the subject since 1824; and there has been no publication of official correspondence relating to it since 1843-46, with the exception of a short document in 1860 having reference to the practice of quarantine in Turkey.

16. The detailed evidence respecting the practice of quarantine in Malta and Gibraltar during 1865 and 1866, contained in the recently published reports from the War-office on the visitation of cholera in these colonies, affords a strong argument as to the necessity for a comprehensive investigation of the whole subject.

17. No country is so deeply concerned in the right solution of this difficult question of State Medicine as Great Britain with her colonies. Besides the magnitude of her commercial relations with every part of the world, the interests of her army and navy, scattered as these are over the face of the globe, and liable to be subjected, by the operation of quarantine regulations, to serious inconveniences in moving from one place or station to another, demand such an inquiry at the present time.

18. It is, moreover, confidently believed that the well-considered expression of opinion by this country, after a searching investigation, could not fail to have great influence with most continental states, as well as with all our colonies, and would eventually lead to the adoption of a more judicious system of defence against the introduction of foreign disease than is at present generally relied upon.

19. In view of the above considerations, it is submitted that it is extremely desirable, in the interests of the national welfare, that a thorough examination of the subject of quarantine—in its bearings on public health, commerce, and the military and naval services—should be made by a Royal Commission, which could call for and collect evidence from all suitable sources, and, after mature deliberation, might thus be enabled to adopt such practical conclusions as would serve for safe guidance in future.

S. R. Gladstone, M.P.
Thomas Bazley, M.P.
D. McLaren, M.P.
Russell Gurney, M.P.
Thomas Chambers, M.P.
John Castell, M.P.
H. W. Acland, M.D., F.R.S., Regius Prof. of Med., Oxford.
James Alderson, M.D., F.R.S., President R. Coll. Physicians.
A. Austin, M.D., C.B., F.R.S., Director Gen. Army Med. Department.
G. Burrows, M.D., F.R.S., Physician to the Queen.
James Clark, M.D., F.R.S., Physician in Ordinary to the Queen.
W. [illegible], M.D., F.R.S., Medical Director R. Coll. Physicians.
W. [illegible], M.D., F.R.S., Consulting Physician Fever Hospital.
[illegible], M.D., F.R.S., Consulting Physician Lock Hospital.
J. [illegible], F.R.S., Inspector R. Coll. Surgeons.
W. [illegible], M.D., F.R.S., Physician to the Queen. Privy Purse.
T. G. Logan, M.D., C.B., Director Gen. Army Med. Department.
J. R. Martin, C.B., F.R.S., Phys. to Sec. of State for India.
Gavin Milroy, M.D., Med. Commiss. in Jamaica, 1851, and in Crimea, 1855-6.
E. A. Parkes, M.D., F.R.S., Prof. of Hygiene, R. Victoria Hospital.
R. Partridge, F.R.S., Ex-President R. Coll. Surgeons.
J. Sutherland, M.D., War-office, Mem. of Internat. Conf. on Quarantine, 1851.
A. Tweedie, M.D., F.R.S., Consult. Phys. Fever Hospital.
T. Watson, Bart., M.D., D.C.L., F.R.S., Ex-President R. Coll. Phys.

NOTES, QUERIES, AND REPLIES.

In that questioneth much shall learn much.—*Bacon.*

J. R., Leicester.—From half a guinea to twenty guineas.

A Constant Subscriber.—Lewis, Gower street.

Dr. S., Exeter.—Want of space prevents our saying anything more on the subject at present.

"The Medical Times and Gazette."

We may be excused for quoting the following passage from the private letter of one of our most respected subscribers in the colonies. This unsolicited testimony to the character of our journal will, we hope, appear as well merited to the great body of our readers as it is agreeable to ourselves:—

"I am one of the oldest subscribers to the *Medical Times and Gazette*, for I have received it since its commencement, and I cannot forego this opportunity of expressing my entire approbation of the manner in which that periodical has been conducted. It is a constant source of valuable information on all Medical subjects, practical and general, and the tone of the journal, it seems to me, has invariably tended to raise, not to lower, the status of the Profession. The leading articles are always ably written, clear, condensed, *ad rem*, whatever it may be, and in choice English, which is always pleasant.

The Recent Case at the Thames Police-court.

To the Editor of the Medical Times and Gazette.

Sir,—My name having appeared in a case heard last week at the Thames Police-court (in which some unqualified Practitioners were charged with receiving some stolen paper) in such a manner as though I was in some way connected with them, will you, therefore, do me the favour to publish the facts of the case?

On January 2 the prisoner Holden came under my care suffering from syphilis, he having previously been under Campbell's care, and was in a very deplorable state. I saw him three times a week until March 5, and then no more. He always paid on each visit, and represented himself to me as a paper maker, and led me to believe he was a master, because he said when away from work the men went wrong and spoiled the paper. On February 8 he brought to my house a small parcel of paper; he said, "I have brought you a small parcel of paper if you will accept it: you have been very kind to me." I said, "Thank you; the paper is of no use to me." He then said, "I will leave it." I threw the parcel on the sofa in my consulting-room, and it remained there unopened and untouched until March 18, when I heard Holden was in custody for stealing paper. I gave information, and went to the court and gave in evidence as I have here stated, which had the reporter given in the papers, and not in the way he did, the trouble of writing this would have been saved. Had I held my tongue and said nothing, my name would not have appeared in so unpleasant a way; what I did was with the desire to further the ends of justice. I first knew the man Campbell in August, 1867, when he sent for me to sign a certificate of lunacy for his wife (who is now in an asylum) in conjunction with another Medical man, the usual fee being paid.

182, Brick-lane, March 25. I am, &c. W. P. Dukes.

Testing of Water for Organic Impurities.

To the Editor of the Medical Times and Gazette.

Sir,—You have well said that "the importance of the estimation of the proportion of organic matter in water can hardly be overrated by the student of hygiene," but that, unfortunately, the most recently devised methods of accomplishing this seem hardly calculated to answer the purpose of the sanitarian, whose want is "a physiological method by which to distinguish one class of organic impurity from another." It is daily becoming more certain that the deleterious effects of polluted water depend less on the mere quantity of organic matter present than on the condition in which it exists in such water. A considerable amount of sound organic matter, such as albumen, gelatin, etc., cannot be supposed to be prejudicial to health, whereas a very small proportion of organic compounds in a decomposing state is known to be capable of producing some of the most fatal forms of disease. The physiological value of a water-testing process must depend, then, very little on its worth for the estimation of the total organic matter contained in water. Practical sanitation has, consequently, little to gain from chemical refinements in the exhaustive analysis of water as regards organic matter.

After long study of the subject of water from a sanitary point of view, Dr. Angus Smith, in a paper recently read by him at the Manchester Literary and Philosophical Institution (*Chemical News*, February 7, 1868), has announced his having arrived at the conclusion that the condition in which organic matter exists in water can be estimated sufficiently for sanitary purposes by potassic permanganate. This opinion, which was never doubtful to those who had given practical attention to the subject, would probably long ere this have been universally entertained had it not been for the futile attempts that were made by some chemists to use permanganate volumetrically in the analysis of water. As might have been expected, that substance was found incapable of furnishing a correct estimation of the total organic matter in water. This, which is the only objection that has ever been made to its employment, cannot, however, [illegible] are all that could possibly be desired in a popular water test.

my experience as a lecturer on hygienic subjects at the various institutes throughout Britain, but, as a recent and interesting instance, I may state that having been supplied, through the kindness of Dr. Gimson, with specimens of water from all the wells at Terling, I easily discovered the infected wells by this test alone, and on handing him my results, they were found to be exactly borne out by his experience of the course the epidemic had taken.

In his last quarterly return, the Registrar-General, in the course of his remarks on the necessity of the diffusion among the public of sanitary knowledge, has made allusion to the dangers of polluted water, and the importance of readily detecting organic taint. "People must be taught," he says, "to protect themselves. If wells in the neighbourhood of drains are fraught with danger, the fact should be made familiar to all; and if there be a simple and ready means of detecting pollution in water, that too should be universally known." The permanganate test would seem to me to be precisely "the simple and ready means" which the Registrar-General thinks should be known to all; for, by merely adding a drop or two of Condy's fluid (which is the popular name of solution of potassic permanganate, and which is procurable everywhere) to a certain volume of water, the eye is enabled to estimate the proportion of decomposing matter present from the change of colour that takes place within a very limited period of time.

A few weeks ago, Professor Attfield published, through the medium of the *Times*, a somewhat ingenious extemporary method of recognising pollution in water by means of the sense of smell. But the time required by this method is sometimes so great, and the nose, especially among persons who have not been used to discriminate faint odours by the olfactory organ, is so far inferior to the eye, that were it even much more accurate and reliable than it is, Professor Attfield's test, though well worth knowing as an excellent makeshift in certain exceptional cases, may be set aside as having nothing to recommend it for ordinary occasions.

I am, &c. JOHN D. MUTER.

Richmond-terrace, London, February 21.

COMMUNICATIONS have been received from—

A COUNTRY SURGEON; Mr. G. L. REED; Dr. PARKES; Mr. ROBERT MACPHERSON; Mr. S. EATON; Mr. EDWARD WOOLTON; Mr. T. FOTHERGILL COOKE; Mr. KNAGGS; Mr. C. P. PHILLIPS; Mr. E. HART; Dr. W. HICKMAN; Mr. J. J. RIDGE; Dr. GERVIS; Dr. T. K. CHAMBERS; Mr. P. LE NEVE FOSTER; Mr. TARRELL; J. R.; INQUIRER; Dr. WILKS; Dr. COFFE; Mr. W. E. POOLE; Mr. E. IRELAND; Dr. ELLIS; Dr. W. P. DUKES; Mr. V. SOLOMON; Dr. PHILIP RUSSELL; Dr. PALEY; Dr. W. H. PEARSE; Dr. JOHN MURRAY; Mr. R. BEVERIDGE; Mr. J. HUTCHINSON; Dr. HARLEY; Dr. HUGHLINGS JACKSON; Mr. A. BRUCE; Messrs. WANKLYN and CHAPMAN; Dr. J. BRAXTON HICKS; Mr. T. M. STONE; Mr. J. CHATTO.

NEWSPAPERS RECEIVED—

Chester Courant—Lincolnshire Chronicle—Harrogate Advertiser—Medical Press and Circular.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 21, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Mar. 21.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Mar. 21.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2299	1441	1298	57·8	32·1	44·0	0·07	7
Bristol (City)	167487	35·7	109	75	160	55·3	33·3	44·3	0·27	27
Birmingham (Boro')	352296	47·0	286	171	155	58·0	34·5	44·1	0·30	30
Liverpool (Borough)	500676	98·0	367	290	241	55·9	37·5	45·5	0·50	51
Manchester (City)	366845	81·8	263	208	1210	59·0	30·0	43·8	0·75	76
Salford (Borough)	117162	22·7	101	59	69	59·5	30·0	43·8	0·65	66
Sheffield (Borough)	232362	10·2	190	122	94	59·0	32·5	42·6	0·21	21
Bradford (Borough)	108019	16·4	93	55	40	..	..	..	..	..
Leeds (Borough)	236746	11·0	194	120	115	58	30·5	45·0	0·03	8
Hull (Borough)	108269	30·4	84	50	55	58·0	29·0	42·1	0·17	17
Newcastle-on-Tyne	127701	23·9	113	68	67	57·0	35·0	44·0	0·12	12
Edinburgh (City)	177039	40·0	135	85	95	55·7	34·5	45·5	0·40	40
Glasgow (City)	449868	88·9	351	262	268	55·1	34·6	44·1	0·98	99
Dublin (City and some suburbs)	319985	32·8	161	*157	147	57·5	32·2	46·8	0·17	17
Total of 14 large Towns	6891080	34·7	4743	3163	2954	59·5	29·0	44·3	0·36	36
					Week ending Mar. 14.	Week ending Mar 14.				
Vienna (City)	560000 (1863)	..	..	..	402	..	..	42·6‡	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·896 in. The barometrical reading decreased from 30·10 in. at the beginning of the week to 29·79 in. by 9 a.m. on Tuesday, March 17; increased to 30·15 in. by 9 a.m. on Wednesday; decreased to 29·71 in. by 3 p.m. on Thursday; and increased to 29·93 in. by the end of the week.

The general direction of the wind was S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 44·7°.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 21, 1868.

BIRTHS.

Births of Boys, 1188; Girls, 1111; Total, 2299.
Average of 10 corresponding weeks, 1858-67, 2016·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	685	613	1298
Average of the ten years 1858-67	737·3	716·7	1454·0
Average corrected to increased population	..	..	1599
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	12	2	1	6	5	3	..
North ..	618,210	2	..	8	2	7	12	3	..
Central	378,058	2	5	2	3	8	1	2	..
East ..	571,158	7	8	3	2	9	7	7	..
South ..	773,175	9	6	5	1	16	12	4	..
Total ..	2,803,989	20	31	20	9	46	37	19	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·896 in.
Mean temperature	44·0
Highest point of thermometer	57·8
Lowest point of thermometer	32·1
Mean dew-point temperature	39·2
General direction of wind	S.W.
Whole amount of rain in the week	0·07

APPOINTMENTS FOR THE WEEK.

March 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

30. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. Thos. Hunt, F.R.C.S., "On Alopecia." The President, "A Note on Animal Force," and "On Iodide of Methyl." Mr. Spencer Watson, "On a New Way of Applying Astringents to the Conjunctiva." Mr. De Méric, "On Some Exceptional Modes of the Transmission of Syphilis."

31. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."

April 1. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

OBSTETRICAL SOCIETY OF LONDON (Council Meeting, 7½ p.m.), 8 p.m. Dr. Graily Hewitt, "On Puerperal Fever at the British Lying-in Hospital." Dr. Copeman, Norwich, "On Some of the Difficulties connected with the Diagnosis of Pregnancy." Dr. Mootoosawmy Moodelly, Madras, "Cases of Ovariotomy."

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 p.m. Lumleian Lectures—Dr. Guy, "The Factors of the Unsound Mind, with Special Reference to the Plea of Insanity in Criminal Cases."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 3 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. W. F. Teevan, "Practical Remarks on the Treatment of some of the Diseases of the Genito-Urinary Organs."

ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."

3. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. Prof. Frankland, "On the Water-supply for the Metropolis."

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Practical Evening for the Narration of Cases.

CLERICAL, MEDICAL, AND GENERAL
LIFE ASSURANCE SOCIETY,
13, ST. JAMES'S-SQUARE, LONDON, S.W.

ESTABLISHED 1824.

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The ARCHBISHOP of CANTERBURY.

Vice-Presidents.

The Archbishop of DUBLIN.	The Earl of GALLOWAY.	The Bishop of ELY.
The Duke of MARLBOROUGH.	The Bishop of LINCOLN.	Lord CROFTON.

Directors.

CHAIRMAN—Right Hon. JOHN ROBERT MOWBRAY, M.P.
DEPUTY-CHAIRMEN { WILLIAM BOWMAN, Esq., V.P.R.S. / SIR CHARLES LOCOCK, Bart., F.R.S.

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Actuary and Secretary.
GEORGE CUTCLIFFE, Esq.

Assistant Actuary.
BENJAMIN NEWBATT, Esq.

FINANCIAL RESULTS OF THE SOCIETY'S OPERATIONS.

The **Annual Income**, steadily increasing, exceeds .. £218,000 | The **Bonus added to Policies** at the last Division was £272,682
The **Assurance Fund**, safely invested, is over .. £1,507,000 | The **Total Claims by death** paid amount to £2,369,876

The following are among the distinctive features of the Society:—

CREDIT SYSTEM.—On any Policy for the whole of Life, where the age does not exceed 60, one-half of the Annual Premiums during the first five years may remain on credit, and may either continue as a debt on the Policy, or be paid off at any time.

LOW RATES OF PREMIUM FOR YOUNG LIVES, with early participation in profits.

ENDOWMENT ASSURANCES may be effected, without Profits, by which the sum assured becomes payable on the attainment of a specified age, or at death, whichever event shall first happen.

INVALID LIVES may be assured at rates proportioned to the increased risk.

PROMPT SETTLEMENT OF CLAIMS.—Claims paid *thirty* days after proof of death.

The Reversionary Bonus at the Quinquennial Division in 1867 averaged 45 per cent., and the **Cash Bonus** 26 per cent., on the Premiums paid in the 5 years.

The next Division of Profits will take place in January, 1872, and persons who effect **New Policies before the end of June next** will be entitled at that Division to one year's additional share of Profits over later Entrants.

Tables of Rates and Forms of Proposal can be obtained of any of the Society's Agents, or of
GEORGE CUTCLIFFE, Actuary and Secretary, 13, St. James's-square, London, S.W.

N.B.—A Fee of One Guinea is paid to the Medical Attendants of all persons proposing to Assure.

STAR LIFE ASSURANCE SOCIETY,
48, MOORGATE-STREET, LONDON, E.C.

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DEPUTY-CHAIRMAN—JOHN CHURCHILL, Esq.

THOMAS BALL, Esq.	WILLIAM MERRY, Esq.
A. BEALEY, Esq., M.D.	WILLIAM NEWBURN, Esq.
WALTER GRIFFITH, Esq.	JONATHAN S. PIDGEON, Esq.
THOMAS HOLMES, Esq.	GEO. F. URLING, Esq.
JOHN J. LIDGETT, Esq.	JOHN VANNER, Esq.
SIR FRANCIS LYCETT.	JOSEPH M. WADE, Esq.

Medical Officers.

C. B. RADCLIFFE, M.D., 25, Cavendish-square, W. | S. O. HABERSHON, M.D., 24, Brook-street, W.
W. MOXON, M.D., 6, Finsbury-circus, E.C.

EXTRACTS FROM THE REPORT OF THE DIRECTORS

READ AND ADOPTED AT THE

ANNUAL MEETING OF THE SOCIETY HELD MARCH 2ND, 1868.

WM. McARTHUR, Esq., Sheriff of London and Middlesex, in the Chair.

During the year, 998 Policies have been issued, for the Assurance of **£367,915**, yielding in Annual Premiums **£12,393 5s. 11d.**

The Annual Income on the 31st December last, as shown by the Auditors' Report, was **£155,856 10s. 6d.**

The Directors report the deaths of 142 persons who were assured (with bonus additions) for **£66,959 7s. 7d.**, a sum considerably less than that of the previous year; it is satisfactory also to know that the calculations of the Society provided for 179 deaths; thus again the average is within the prescribed limit.

The total claims paid since the establishment of the Society amount to **£552,160 11s. 7d.**

The balance of Receipts over Disbursements for the year is **£59,509 5s. 6d.**, which, added to the Insurance Fund, shows the large sum of **£745,160 8s. 10d.** as a security for the payment of claims as they arise.

The Directors, in closing their Report, ask the earnest and generous co-operation of their friends. A very little effort on the part of the Policyholders would largely increase the business.

WM. McARTHUR, Chairman.
JESSE HOBSON, Secretary.

Prospectuses, Books of Tables, Forms of Proposal, and any information may be obtained of the Secretary, at the Chief Office, or of the Agents of the Society in almost every Town in the Kingdom.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture X.—Part II.

TURNING CONTINUED.—ARTIFICIAL VERSION BY THE HEAD—REASONS WHY VERSION BY THE BREECH IS COMMONLY PREFERRED—ILLUSTRATIONS OF HEAD-TURNING, OR CORRECTION OF THE PRESENTATION, BEFORE AND DURING LABOUR IN OBLIQUITY OF THE UTERUS AND FŒTUS, SHOULDER PRESENTATION, FOREHEAD AND FACE PRESENTATIONS, DESCENT OF HAND OR UMBILICAL CORD BY THE SIDE OF THE HEAD.

As head-presentation is the type of natural labour, it follows that to obtain a head-presentation is the great end to be contemplated by art. It seems enough to state this proposition to command immediate assent. But in practice it is all but universally contemned. No one will dispute that the chance of a child's life is far better if birth takes place by the head than if by the breech or feet. Yet delivery by the feet is almost invariably practised when turning, or the substitution of a favourable for an unfavourable presentation, has to be accomplished. Why is this?

The answer is not entirely satisfactory. It rests chiefly upon the undoubted fact that in the great majority of instances, at the time when a mal-presentation comes before us, demanding skilled assistance, turning by the feet is the only mode of turning which is practicable. Frequent experience of one order of events is apt so to fill the mind as to exclude the reception of events that are observed but rarely. Many truths in Medicine escape recognition because the mind is preoccupied by dogmas and narrowed by an arbitrary and enslaving empiricism. Many things are not observed because they are not sought for with an intelligent and instructed eye. And then, reasoning in a vicious circle, some men will boldly deny the existence of that which their untrained faculties cannot perceive. They go further: by doggedly and consistently following a practice which arrests Nature in her course, substituting a violent proceeding of their own, they never give Nature a chance of vindicating her own powers, and they consequently never give themselves a chance of learning what those powers are, or of realising the imperfection of their own knowledge. They close the shutters at noon-day and say the sun does not shine.

In the seventeenth and in the beginning of the eighteenth centuries, Velpeau remarks, cephalic turning was hardly ever mentioned unless to be condemned. But if the practice of podalic turning was then so general, it was justified because the forceps was not known. In many cases it is not enough to correct the position—it is also necessary to extract. Without the forceps our predecessors could only extract by the legs. But now, if the head is brought to the brim, the forceps affords a ready means of extraction.

Flamant appears to have been amongst the first to revive the practice of turning by the head; he did it by external manipulation. Osiander and Wigand (1807) investigated the subject with remarkable sagacity and skill. D'Outrepont pursued it; and many other names might be cited. The researches of Wigand, however, contain the germ of all the subsequent inquiries.

Flamant strenuously contended that head-turning was best. In two cases of arm-presentation he raised the breech towards the fundus uteri. The head thus made to descend was seized by the hand. The liquor amnii had long escaped. He worked in these cases entirely by *internal* manipulation. Wigand accomplished the same object by *external* manipulation, saving the children. D'Outrepont had a case of a woman who had lost three children by foot-turning. In her fourth labour she had a shoulder-presentation. There was slight conjugate contraction. The head lay to the right, the feet to the left; the back of the chest was above the brim. He seized the child by the back, placed his right thumb and the right side of four fingers on its left side; then he pushed it to the left and upwards; then he released the back, and seized the neck, whilst he pressed upon the shoulder with his thumb, and the palm and four fingers on the back. The head came over the brim, and the child was safely delivered. In a second case, the breast was on the brim, the head to the left; he pushed up the chest and brought down the head, which entered by the face, and was so delivered. Strong pains prevented his reducing the face to a cranial position. In a third case he was equally successful. D'Outrepont afterwards practised with success Wigand's method of head-turning by external manipulation.

Here is a case of bi-manual and bi-polar head-turning by d'Outrepont. The head lay in the right side. He placed the patient on her left side raised. During each pain he imparted gentle pressure on the side where the head lay, directing it towards the brim; and *at the same time* he pressed with his other hand in the opposite direction upon the fundus where the breech lay. In the intervals of pain, he planted a pillow in the side where the head lay. The head was brought into the pelvis, and a large living child was born.

Professor E. Martin(a) has carefully described the operation, and practised it with great success.

Hohl(b) says turning by the head is much less esteemed than it ought to be, and that it would be more esteemed if more pains were taken to instruct pupils how to do it on the phantom.

Head-turning, or simple rectification of the presentation, may be indicated under the following circumstances:—

A. *Before the Accession of Labour.*—When the uterus and fœtus are placed obliquely in relation to the pelvic brim; and in some cases where the shoulder is actually presenting.

B. 1. *When Labour has Begun.*—When the uterus and fœtus are placed obliquely in relation to the pelvic brim, which obliquity may be preparatory to the complete substitution of the shoulder for the head.

2. In some cases of shoulder presentation, the membranes being still intact.

3. In some cases of shoulder presentation, the membranes having burst, but considerable mobility of the child being still preserved.

4. The forehead or face presenting.

5. Descent of hand by the side of the head.

6. Prolapse of the umbilical cord by the side of the head.

A. *Head-turning, or Rectification before Labour.*—This has been often practised by Wigand, d'Outrepont, and others. I will describe the operation after Esterlé. It was the observation of the frequent occurrence of spontaneous version in the eighth and ninth months of gestation that led this eminent obstetrician to practise external bi-polar version.(c) He observed that a large number of shoulder-presentations in the two last months, if left to themselves, were converted into natural presentations, either on the approach of labour or after the beginning of labour. He had further remarked that spontaneous version had occurred after the escape of the liquor amnii, and the shoulder was sensibly down. The most efficient cause of spontaneous version, he says, is the combined action of the movements of the fœtus and of its gravity, the centre of gravity not being far from the head. The extension of the feet must drive the breech away from the uterine wall as the feet strike it, and so the head is brought nearer to the brim. His method was as follows:—

The patient must be placed in such a posture as to produce the greatest possible muscular relaxation. Bearing in mind the conditions which take part in spontaneous version, it is necessary to imitate them as much as possible. Amongst these is the lateral and partial contraction of the uterus, which diminishes the transverse diameter, and which exerts a convenient pressure upon the ovoid extremities of the fœtus; and the movements of the fœtus, the repercussion of its head, and its descent when the centre of gravity of the fœtal body favours its fall. To imitate this, the lateral contractions must be replaced by lateral pressure. This is applied towards the fundus or the neck, according to the situation of the part which it is sought to raise or to depress. This pressure is assisted greatly by the gentle strokes or succussions made by the palm of the hand alternately towards either ovoid extremity. These strokes are then made, in rapid succession, simultaneously upon the two extremities, one giving a move-

(a) *Frorieps Notizen.* 1860.

(b) *Lehrbuch der Geburtshülfe.* 1862.

(c) "Su Ricolgimento Esterno." *Annali Universali di Medicina.* 1859.

ment of ascent, the other a movement of descent; or we may act upon the head alone, whilst the other hand makes a steady pressure on the contrary side, the more to diminish the transverse diameter. The desired position being effected, it is necessary to maintain it. This may be done by the adaptation of a suitable bandage.

Lazzati operates in a similar manner. He maintains the uterus and fœtus in due position by the adaptation of cushions or pads to the sides of the opposite poles of the fœtal ovoid.

B. 1, 2, and 3.—Head-turning or correction of the presentation may be attempted in cases of moderate obliquity, where the liquor amnii is still present or has only recently escaped. It is also necessary that the action of the uterus be moderate. Correction, as we have seen, consists in restoring the head, which has passed across the brim of the pelvis into the ilium, back to its due relation to the brim. This operation involves the rectification of the uterus, as well as of the child. It may in certain cases be effected entirely by external manipulations. Supposing the case be one in which the head is deviated to the left ilium, and the fundus, with the breech, are directed to the right of the mother's spine, the first step is to place the patient in a favourable position. Now, by laying her on her left side, the fundus of the uterus, loaded with the breech and being movable, will tend to fall towards the depending side. This will act as a lever upon the uterine ovoid, and raise the lower or head end of the uterus, so as to facilitate its return to the brim. In such cases Wigand recommends that the posture should be repeatedly changed, so as to ascertain which is the best to maintain the head in the central line of the pelvis. When this is found, the sooner the membranes are ruptured the better. The patient must thenceforward be kept carefully in the same posture, the uterus being supported in due relation by the hands externally. But I believe that in many cases the dorsal position will lend the greatest facility.

We must apply pressure to the uterus towards the median line of the mother, both at its fundus and at the lower part which contains the head. The head will thus be pushed by one hand to the right, whilst the fundus uteri is pushed by the other hand to the left. When the head has been thus brought over the brim, the difficulty is to secure it there. If the correcting pressure be removed, the uterus tends to resume its obliquity.

If labour has begun, we may combine internal with external manipulation. We may press upon the fundus with one hand whilst with a finger in the os uteri we pull this over the centre of the brim (Wigand). External pressure by a cushion or pillow laid in the hollow of the ilium in which the head lay will aid this manœuvre. Then, having got the head into proper position, and whilst it is kept so by aid of an assistant, rupture the membranes. *The contraction of the uterus tends to restore its natural ovoid shape.* And this will tend to keep the child's long axis in relation. If by this contraction the head should happily become fixed in the brim, the manœuvre has succeeded. The labour has become natural. But if the head still shows a disposition to recede, grasp it at once with the long double-curved forceps, and hold it in the brim until it is sufficiently engaged to be safe.

4. The mode in which forehead- and face-presentations arise out of excess of friction or resistance encountered by the occiput has been described in Lecture IV. part ii. (*Medical Times and Gazette*, October 27, 1867).

Sometimes correction of these presentations may be effected by restoring the equilibrium of resistance to the anterior part of the head. Sometimes this is effected by simply keeping the tips of the fingers upon the forehead, trusting to the expulsive efforts propagated through the child's spine to cause the head to rotate upon its transverse axis, and bring down the occiput. Sometimes further aid is necessary. The tips of two fingers of the left hand are applied internally upon the forehead, and at the same time the occiput must be pressed down by the fingers of the right hand applied externally in the iliac fossa.

In some cases a rougher method has been pursued. The hand introduced into the uterus has seized the head by the occiput, and brought it down. This manœuvre is by no means easy, and, if the child is mature, will rarely succeed.

Wigand, when the head was not too low in the pelvis, first pushed the face upwards, so as to convert the face into a forehead presentation, if not into a cranial; then he applied the forceps.

Smellie had already deliberately put in practice the restoration of a lost head position [d]. In one case, feeling the face presenting through the membranes, he raised the forehead; then letting the waters escape, the head was fixed in its proper position, and the labour terminated successfully. In the second case, a hand presented. Smellie grasped the head, and brought it into the brim, having pushed up the shoulder. In this position the head was fixed by the escape of the liquor amnii and bearing-down pains. The child was delivered naturally. In a third case, in which the breast presented, he was equally successful in bringing down the head.

5. Descent of the hand by the side of the head. When this accident occurs, it is apt to proceed to shoulder-presentation, the hand and arm slipping down and wedging the head off the brim to one or other iliac fossa. Hence the importance of correcting this presentation as early as possible. Whilst the parts are still movable, it is commonly possible to push up the presenting hand by means of your left fingers in the vagina; and at the same time, by pressing down the head by the external hand towards the brim, you make the head fill the space until the double-curved forceps is applied. Then, drawing the head into the brim, the hand cannot again descend.

6. Prolapse of the umbilical cord by the side of the head may sometimes be managed successfully in a similar manner. The first thing to be done is to replace the cord above the presenting head. The postural or knee-elbow position will much facilitate this operation; but it is not always available or necessary. Braun's repositorium, or, better still, Roberton's, may be used to carry up the loop of prolapsed cord. As soon as this is done, press the head down upon the brim, and whilst it is supported by the two hands of an assistant, seize it with the double-curved forceps.

(d) "Cases and Observations," vol. ii. 1754.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON THE EARLY TREATMENT OF INSANITY.

By HENRY MAUDSLEY, M.D. Lond.,
Physician to the West London Hospital; Lecturer on Insanity at St. Mary's Hospital Medical School.

The proportion of recoveries in insanity is well known to be great or small according as proper treatment is begun early or delayed until the mischief has had time to establish itself. When the mental equilibrium has been recently upset, there is good hope of its being soon restored if timely means be adopted; but when the *habit* of a definite morbid nutrition has been fixed in the supreme cerebral centres of intelligence, then it continues almost as naturally as the normal physiological habit, and is not easily got rid of. Let the derangement have taken quiet possession of the individual's character—have transformed his identity, and become the *ego*, it would be almost as hopeful to look for "grapes on thorns or figs on thistles" as to look for recovery. It is when the first indications of mental change foreshadow the coming calamity that the adoption of suitable Medical treatment warrants the most lively assurance of success. There can be no question, I think, that an attack of insanity may in some instances be positively arrested at its outset by judicious treatment. I have certainly seen several cases in which a seemingly imminent outbreak of severe melancholia has been warded off, and the patient restored to tranquillity and health of mind, by the judicious use of opium. Indeed, in that state of mental hyperæsthesia which so often precedes an outbreak of insanity, when the mental tone is so changed that every impression is painful, every thought a fear, and every feeling a despair, the remedial virtues of opium can scarcely be exaggerated.

The case which I am about to mention may serve as an illustration not only of the benefit of early treatment in insanity, but of the advantages which a particular method of treatment sometimes offers in private practice, where there are not the means and appliances which are available in an asylum. On one occasion I was called hastily in the middle of the night to see a young woman, aged 20, who had suddenly become acutely maniacal, and whose frenzy of word and action, upsetting the household, had baffled the resources of the Medical attendant. After feeling a great craving for a glass of beer, which she had been obliged to gratify, she had gone to bed suffering, as was not unusual with her, from windy eructations; but no sooner had she got to her bed than she broke out in a maniacal frenzy, screaming loudly, raving incoherently, and tearing her night-dress and bed-clothes to

rags. It had been found impossible to administer any medicine to her, or in any way to tranquillise her; a basin of mustard and water, in which an attempt had been made to put her feet, she had kicked over. I found her in a state of acute excitement, with dishevelled hair and wildly staring eyes, restlessly starting from place to place, particularly if any one attempted to touch her, talking all the while rapidly and incoherently, and evidently not knowing those who were about her. Under my instructions, a skilful attendant proceeded at once to pack her in the wet sheet after the hydropathic fashion. This was done without much trouble; a cloth dipped in cold water was applied to the forehead, and a drachm of tincture of henbane was given to the patient, who soon afterwards fell asleep. The sheet was removed after an hour and a half, dipped again in water, and reapplied for an hour and a half more. When I visited the patient in the morning all excitement was gone, and though the mind was confused and evidently in a state of unstable equilibrium, yet she was conscious and answered rationally, though quite unaware that she had seen me in the night. From this time recovery went steadily on, and in a few days she was quite restored.

There can be no doubt that this was an example of hysterical mania, which might in any case be expected to pass sooner or later—and probably sooner than later—to a favourable termination; but it may fairly be doubted whether, had the means adopted not been put in force, the patient would have had such a quick and happy issue out of her affliction. The advantages of packing in the wet sheet in such a case are these:—In the first place, the wet sheet seems to exercise a positive soothing influence, so that a patient will sometimes go to sleep in it when nothing more is done Secondly, by keeping the patient perforce quiet, without the necessity of a struggle, it not only enables us to give the requisite food and medicine much more easily than could otherwise be done, but it favours the action of the sedative that may be administered. Had the henbane been given to my patient, and nothing more been done, it is more than probable that the dose would have had no appreciable effect upon her excitement. As it was, however, the system was prevented from resisting its action, and the sedative took instant and excellent effect. Thirdly, if packing in the wet sheet carry with it no further advantage, it is a useful expedient for temporarily restraining a maniacal patient where there are not the appliances for treatment which an asylum possesses, and where the Practitioner's difficulty of acting immediately and usefully is so great. The happy result of treatment in the above-mentioned case could not fail to produce the greater impression on my mind, as, some time before, I had recommended—quite unnecessarily, as I now think—the removal to an asylum of a young woman similarly attacked.

The packing in the wet sheet should not be continued for more than three hours, and during that time the sheet should be removed once, wetted, and reapplied. Thus its application has the character of a remedial means, and is not abused for purposes of mechanical restraint.

A few words more touching treatment. Had the wet sheet not been used, what means would have suggested themselves as most desirable for adoption? Certainly not opium. It seldom does good in acute mania, especially in young persons, if it ever does real and lasting good in any case of mania. Probably an effectual emetic to begin with, followed by the regular administration of bromide of potassium and tincture of henbane, would have been as successful as the measures that were actually employed in the case. Notwithstanding the opinion of Dr. Handfield Jones, who has recently advocated the regular use of tartar emetic in certain cases of mania, I should not be tempted to employ so uncertain and doubtful a means of stifling maniacal delirium. To my mind there is grave reason to suspect that the administration of antimony in doses large enough to stop the raving of insanity, favours the lapse of the disease into dementia. Dr. Jones's theory of its action as a tissue-sedative, lessening the nutritive activity of the part, so that the altered vital actions go on more slowly, is not inconsistent with that suspicion. There is no reason, so far as I know, to allege that the action of the drug is limited to the particular elements of tissue that have taken on a morbid activity; and if the drug manifests no such elective affinity, but affects all the tissue elements of the body, it is difficult to perceive the foundation of the theory of its assumed virtue. It is surely desirable that the vitality of the parts in the neighbourhood of a morbid centre, or a morbid area of tissue, should not be lowered; a thoroughly sound vitality not only presenting the most effectual barrier against the encroachment of disease, but exerting the best influence in bringing back to their natural allegiance the recalcitrant or revolutionary elements. What advantage is gained by reducing the power of authority and of sound citizenship in order to reduce in equal degree the force of the riotous members of the community? It is with the individual element of tissue as it is with the individual man: let the surroundings be of the best kind, and they will not fail to exert their beneficial influence.

THE USE OF MERCURY IN CROUP.

By E. L. DIXON, L.R.C.P.

The brief notes of the following case are published as a contribution to the solution of the vexed question of the efficacy of mercury in inflammations attended with the pouring out of fibrinous material.

A fine boy four years of age began to be ill with feverish symptoms on November 17, 1867. On the 20th the eruption of measles appeared; on the 24th there was some hoarseness in conjunction with the slight cough which had existed throughout the attack, and on the 26th I saw him. There were then the pathognomonic stridor of croup, complete hoarseness, and, although the number of respirations was not more than 24 per minute, considerable embarrassment of breathing; no speck of exudation could be seen at the back of the fauces either then or on other occasions during the progress of the disease. No enlargement of the submaxillary glands; no crepitation or dulness on percussion, on physical examination of the chest. A few spots of the eruption still lingered on the face; pulse 120; skin hot; thirst; bowels open. He had previously enjoyed very good health, except that he had had "inflammation of the bowels" about a year before. There had been no special exposure to cold since the beginning of the measles, but the weather had been very inclement. The air of the room was ordered to be kept warm and moist; hot poultices to be applied to the throat; an emetic mixture of antimony and ipecacuanha to be given so as to produce vomiting occasionally, and in smaller doses in the intervals; half grain of calomel every four hours; milk and beef-tea diet.

28th.—Vomiting has been produced several times, but there has been no relief to the symptoms, and the child is decidedly worse. The strong mercurial ointment is ordered to be rubbed in every four hours, an emetic of sulphate of copper (½ gr. for a dose every quarter of an hour till free vomiting be excited) instead of the antimony and ipecacuanha; the decoction of senega with carbonate of ammonia every three hours in the intervals of the vomitings. Evening: Much worse; dyspnœa and restlessness extreme; countenance dusky; whites of eyes turned up; head thrown back; frequent grinding of teeth.

29th.—Last night, after a violent fit of vomiting and coughing induced by the emetic, he ejected through the nostrils a long membranous cast, which has, unfortunately, not been sufficiently well preserved to admit of examination, and he at once experienced great relief, so that he passed afterwards a good night. This morning, too, his breathing is comparatively tranquil, though there is still a little harshness. The mercurial ointment is ordered to be rubbed in every six hours, and as the bowels are now very freely purged, the calomel is discontinued.

30th.—There are again considerable stridor and dyspnœa this morning. Iodine paint to be applied to the sternum three times a day. Noon: A long cast of the trachea has been brought up after the emetic, with immediate relief to the breathing. This cast is throughout a great part of its extent quite cylindrical; the thickness of it varies, but in some parts it is as much as one-eighth of an inch Macerated in water, it is generally of an opaque white, and presents numerous semi-transparent spots where it is very thin. Under the microscope (¼th) it seems to consist of a mass of cells irregular in shape, with imperfect nuclei, and somewhat smaller than pus corpuscles; no fibres can be detected. Evening: The breathing is again becoming more difficult and noisy; no pulmonary implication to be made out. Calomel ½ gr. is given, as the bowels have not acted.

December 1.—More membrane was again brought up last night, with relief, but the breathing is nevertheless stridulous. Pulse 135; does not take food so well Bowels have been acted upon by the calomel. A teaspoonful of port wine is ordered to be given every alternate hour. 3 p.m.: The breathing

having become very difficult, the copper emetic was given again, with the result of the expulsion of another membranous cast, and an amelioration of the symptoms, but there is still some stridor. 10 p.m : The dyspnœa is as great as ever, and as stridulous. He is exceedingly restless, constantly tossing about, and extending his neck backwards. Will not take more food ; pulse worse. Ordered gr. $\frac{1}{2}$ cupri sulph. immediately, and gr. $\frac{1}{4}$ every half-hour until free vomiting be produced, or until six doses have been given.

2nd —The emetic did not act, the dyspnœa continued to increase, and he died evidently asphyxiated at 7 a.m., the extreme restlessness having entirely disappeared some hours before. He had during the night an involuntary evacuation from the bowels, which contained a little blood.

With respect to the diagnosis of this case there could be no doubt ; it was a case of genuine croup, secondary to measles. Its peculiarities consisted in (1) its duration, (2) the quantity of fibrinous membrane produced and expelled, and (3) the absence of spasmodic paroxysms. While it is rare for an attack of croup to last more than five days, the duration of this, from the beginning of the aphonia to death, was eight days, and the reason for this protraction seems to have depended upon the frequent expulsion of the membrane so frequently formed. Seldom does one see anything more than shreds and patches of the effused fibrinous products in the vomited matters in these cases, but here there were several long and partially tubular casts of the trachea brought up. The dyspnœa was not, as it generally is, paroxysmally aggravated, but apparently it increased gradually from the expulsion of one suffocating cast to that of the next. The frequent ejection of these inflammatory products infused some hope into the prognosis, which was not justified by the event. Depletion was not directed on account of the secondary, and therefore presumably somewhat asthenic, nature of the case ; and, moreover, the amount of fibrine exuded is said to be no indication of the intensity of this inflammation, but rather to be dependent upon individual peculiarity. The warm bath was not used, as there was no spasmodic dyspnœa, and, in addition, the patient could with difficulty be kept covered up in bed. Tracheotomy, as the case became more grave, was seriously considered, but rejected ; for it was not required on account of glottidean spasm, and it could not, of course, have prevented the formation of the exudation which blocked up the air-passage ; moreover, it would most undoubtedly have been opposed by the parents. Mercury was freely exhibited from the beginning, and in consequence of the discharge of the tracheal casts one after another during the continuance of the case, it could here be as easily ascertained whether the remedy had any influence as in (syphilitic) inflammations of the eye where the transparent parts allow of direct observation. Half a grain of calomel was given every four hours from noon of the 27th. On the morning of the 28th the rubbing in of strong mercurial ointment every four hours was ordered in addition. On the 29th, in consequence of the great improvement which had taken place, the ointment was directed to be used only every six hours, and the calomel, on account of the purging, was discontinued for the time ; but half a grain was again administered on the night of the 30th. The rubbing in was regularly continued until death took place, and ointment to the amount of two ounces was consumed. He died five days within a few hours of the commencement of this liberal exhibition of mercury. As already stated, it is rare for a case of croup to be so far protracted as this, and therefore rare for mercury to have a fair chance of success ; and some authors object to its use on this account, that the disease is too acute. But here a sufficient time seems to have elapsed between the commencement of the administration and the fatal termination for the mineral to have exhibited its powers, but no cessation of the inflammatory process took place ; on the other hand, there was evidently fresh fibrinous exudation poured out the evening before death, as I think, although there was no post-mortem verification, may be fairly concluded from the above account.

Preston, Lancashire.

Australian Grass Seeds.—Amongst vegetable irritants unknown in this country are the seeds of some kinds of grass, which create immense irritation if introduced into any of the canals of the body. A nurse girl who got some into her ear is described by the *Victoria Mercury* as having been in great danger ; and parents are cautioned against letting their children play with hay.

CASE OF

INVERSION OF THE UTERUS, WITH MORBID PLACENTAL ADHESION (a)

By ALBERT O. SPEEDY, L.R.C.P. Edin.,
Assistant-Physician to the Rotundo Lying-in Hospital, Dublin.

On December 21, 1867, Mr. G., one of our pupils at the Rotundo Lying-in Hospital, Dublin, was called to attend T. W., aged 23 years, in her second pregnancy. On arrival he found her in charge of an old woman, who stated she was a midwife, and that the patient had been delivered four hours, but that she could not get the placenta away. On making an examination, Mr. G. found a large globular mass filling up the vagina ; the bed was perfectly saturated with blood, and the woman almost pulseless. On observing her dangerous condition, he obtained further assistance from Dr. M., who happened to be the only pupil in the Hospital at the time. He pronounced the case to be one of complete inversion of the uterus combined with morbid adhesion of the placenta, after peeling off the greater portion of which he returned the inverted mass with great ease.

On account of the interest attached to the case, I was requested by Dr. Denham to visit the woman, which I did that evening. I found her with scarcely a pulse ; the entire surface of the body was cold, the face pale and covered with clammy perspiration ; in short, with all the well-marked symptoms of collapse, also frequent vomiting. I adopted the usual remedies in such cases, a hot brick to the feet, sinapisms to legs, heart, and stomach, a nutritive enema of beef-tea, brandy, and Battley, the latter to be repeated in three hours ; prussic acid mixture to allay the sickness of stomach. I was fully satisfied that the uterus was in its normal position, as I distinctly found the os ; the uterus, at the same time, being low down and soft. Under the above treatment reaction slowly set in. Pain was now felt in the left iliac region, for which a large linseed poultice was applied ; the vomiting abated considerably, and she obtained some sleep. The catheter was obliged to be used twice a day. Thus she progressed, rather favourably, considering the perilous nature of the accident, up to the fourth day, when a small piece of placenta, with a very fœtid odour, came away. The following day no urine was secreted, and delirium of an alarming nature set in ; the pain on pressing the abdomen now became most exquisite, a hectic flush appeared on the cheeks, and the pulse became extremely rapid. She was then placed on full doses of powdered opium, combined with dried soda, every fourth hour. Small quantities of beef-tea, brandy, ice, and soda-water by the mouth ; the nutritive enemata to be continued. Notwithstanding all our efforts, she gradually got weaker, the respiration becoming laboured, the face pinched, and the pulse a thread ; and she died that evening at 6 o'clock. We were anxious to have the benefit of an autopsy, but found it impracticable.

The causes of this deplorable accident were, it appears to me, twofold—first, predisposing ; second, exciting. First, the placenta being morbidly adherent, and the relaxation of the uterine walls from hæmorrhage. Second, continued traction upon the funis for hours together, with persistent and ill-judged "kneading" of the uterus by the so-called "midwife."

Transfusion.—Dr. Braman relates a curious case of this which occurred to him while serving in the U.S. army. A man aged 30, of athletic structure, while attempting to hurl a heavy weight over his head backwards, felt "something give way," and immediately vomited a large quantity of blood. The bleeding continued to increase, notwithstanding the use of styptics, until he was reduced to an apparently completely moribund state. As stimuli given by the mouth seemed only to increase the bleeding, laudanum and brandy and water were given by enemas, and temporary relief was afforded to the coughing by rubbing morphia into scarifications made on the chest. Finding he still lived by aid of the persevering use of the brandy injections, it was determined to try the effect of transfusion, and nearly ʒiijss. of blood were thrown into the median basilic vein by means of a small penis syringe. The pulse began again to be faintly perceptible, while animal heat returned slowly to the extremities. The brandy enemata were continued, and the cough was kept in check by opiates. The man gradually rallied, and recovered so that in three weeks he was discharged from the Hospital.—*Boston Med. Jour.*, January 30.

(a) Read before the Obstetrical Society of Ireland, February 5, 1868.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

HOSPITAL SHIP "DREADNOUGHT."

THE SURGICAL DECK.

Treatment of Venereal Diseases—Clinical Facts on Scurvy—Gonorrhœal Rheumatism.

In this report we purpose to fulfil a promise made in a previous article on the Medical practice of the *Dreadnought* (*Medical Times and Gazette*, September 21, 1867), and to extend our remarks by giving a brief sketch, with some few illustrative examples, of the treatment carried out in the Surgical department. The patients are under the care of Mr Rooke, Surgeon to the Hospital, and Mr. Bedford, Assistant-Surgeon. Although, from the fact that none but sailors and men engaged by the side of the water are admitted into this institution, the practice is very much restricted as to the sex and age of the patients, many points of interest and novelty will strike the clinical observer. Syphilis and scurvy, the results of the moral and social condition of the merchant seaman, and of insufficient attention to his hygienic wants, are not only presented alone in their most severe and intense forms, but by them many ordinary Surgical lesions, both traumatic and idiopathic, are complicated in manifold ways. The modifications of Surgical affections dependent upon race, climate, and special occupation may be fully studied, and also the result and state of perfection of cures brought about by natural means alone, as the faulty union of fractures, the formation of a false joint in cases of unreduced luxation, and the like.

At the extreme end of the second deck, and at the stern of the ship, are the dispensary, a small operating-room, and a waiting room for out-patients. Extending from the entrance to this department to the bows of the ship, a length of 180 feet, and reaching from one side to the other, a distance of 44 feet, is the long Surgical ward, which is well ventilated and fairly lighted, but extremely low. This ward contains fifty-four beds, and is given up to Surgical cases and the most severe forms of syphilitic disease. The number of patients treated here in twelve months is a little more than one-third of the total number of admissions into the ship, which in 1867 was 1958.

The prevailing class of cases on the Surgical deck is made up of the many varieties, both in nature and severity, of the venereal disease. Gonorrhœa and the ordinary manifestations of primary and secondary syphilis are treated apart in a special ward, but here are presented the most lamentable results of the affection. Wide-spread destruction of the osseous and soft parts of the face, caries of the cranial bones, and deep ulceration of the pharynx and tongue may be constantly witnessed, and also well-marked and luxuriant specimens of those common tertiary skin affections, the round sharply defined ulcer associated with rupia, and the long and narrow serpiginous sore. The treatment of these cases does not differ from that generally adopted at the present time. For primary and secondary affections, the calomel vapour bath and the internal administration of the biniodide of mercury, give good general results; the cachectic affections of the so-called tertiary stage are in most instances benefited by large doses of iodide of potassium, as recommended years ago by Ricord, by cod-liver oil, and by a full and nutritious diet. One point in the *Dreadnought* treatment of venereal disease worthy of special notice, is the great and early benefit frequently derived from the application of nitrate of silver in stick or in a strong solution to large and painful osseous nodes; by this means a blister is formed, the size of the tumour diminished, and the nocturnal tortures relieved.

Among the many serious results of that common disease of sailors known as sea scurvy, there are two which bring the patient at once under the care of the Surgeon. One of these is the deposit in the intermuscular tissue, and between bone and periosteum, of a pinkish, indurated, and organisable fibrinous material; the second is the great tendency of slight abrasions of the skin and previous ulcers of no special character to take on a peculiar action, and to become converted into fœtid and rapidly spreading sores, with elevated level edges and a base covered with fungoid granulations. These two local manifestations, the scorbutic formations and the scorbutic ulcers, are well known to those who have had experience of sea and land scurvy, and have been described by Drs. Himmelstiern and Hermann among Continental observers, and by Mr. Busk, Dr Buzzard, and others at home. We have, however, had opportunities of observing two other points in connection with the surgery of scurvy which have not been so fully commented upon. The first is the long persistence of the scorbutic sore after the convalescence of the patient, and its conversion into an ulcer with sharply defined edges and luxuriant granulations, which are very pale, flabby, and semi-transparent, and secrete thick pus, which is of creamy whiteness and readily inspissated. This variety of ulcer, which seems to be dependent upon a general state of anæmia, frequently remains unclosed for many months, as in the case of a patient at present in the *Dreadnought*, who has been under treatment since February, 1867, for a large indurated swelling in the left calf, and whose skin in front of and behind the left leg was riddled with these pale and bloodless sores.

The second point to which our attention has been directed is one connected with certain changes that have been frequently observed after death in the periosteum, and particularly in that which covers subcutaneous osseous surfaces or bones lying close under the skin, as the nasal bones, edge of lower jaw, and clavicles. In these cases the membrane has been found to be dry, crisp, and separated from its subjacent osseous connexions, leaving the bone exposed as in necrosis. There was no suppuration, no intermediate deposit, nor were there during life any subjective symptoms to manifest the change, except in the following remarkable case, which undoubtedly depended upon this condition:—A sailor, about 60 years of age, was admitted under the care of Mr. Bedford, the Assistant-Surgeon, with marked symptoms of scurvy; he had applied on account of an enormous swelling on the top of the head. The man's forehead was very high, and the whole of the scalp was considerably elevated above the cranial bones by what was believed, from a distinct feeling of fluctuation, to be a purulent collection. An incision was made without giving vent to more than a few drops of sanguineous pus, and it was then discovered that the parietal bones were dry, and deprived of pericranium, and that this fibrous membrane, together with the scalp, formed the roof of a large cavity, which contained no liquid effusion, but formed, if such a term can be applied to a swelling containing no pus, an aerial abscess. No marked cerebral derangement was produced by this singular condition of things, but the man in the course of forty-eight hours fell into a state of extreme exhaustion, became jaundiced, and finally died. The parietal and frontal bones, and the upper part of the occipital bone, were uncovered by pericranium and necrosed. There was no purulent collection at their under surface over the upper part of the cerebrum. The periosteum was found detached from both clavicles.

The Surgical affections of the bones and their articulations seem to occur more frequently among sailors than among landsmen of corresponding ages. Many interesting cases of osseous caries and necrosis were treated during the year 1867, and also various forms of joint disease resulting from synovial thickening and acute and chronic ulceration of cartilage. A very common affection of the joints, however, is that resulting from that special modification of purulent absorption which is still generally designated gonorrhœal rheumatism. This affection, when neglected in its early and active stages, passes into the chronic condition, and then becomes a serious and very obstinate arthritic disorder. Various structural changes may take place in ligamentous, cartilaginous, and osseous tissues, and the joint be finally locked by peripheric or interstitial fibrous anchylosis. Mr. Rooke, who has paid particular attention to the pathology and treatment of these special lesions, has found the greatest benefit from giving during the early stages colchicum, iodide of potassium and other alkalies, and subsequently quinine and a full diet. The skin over the affected joint is blistered by the repeated application of a strong iodine paint. The following case of hydrops articuli of both knees is interesting from its history and treatment:—The patient was a sailor, 32 years of age, who had contracted gonorrhœa two years before his admission, and soon afterwards started on a long sea voyage, during which no great care was taken to guard against exposure to cold and wet. In the course of a few days the urethral discharge suddenly ceased, and the knees commenced to swell. This swelling, which at first was attended with great pain, increased during the rest of the voyage, which lasted over two months, and never entirely disappeared, although relief had been gained from time to time at several Hospitals. The man continued

his occupation, but was at last completely disabled at Calcutta, and then sent home as a "distressed British subject." When first seen by Mr. Rooke, in March, 1867, both knees, the left to a greater extent, were distended by large collections of fluid, which elevated the patella and extended upwards for some distance in front of the thigh bones. The patient felt no severe pain in the knees when he was warm and in the recumbent position, but during walking, or after the exposure of the lower limbs to a draught of cold air, suffered acutely. As the general treatment with alkalies and the local application of iodine, blisters, etc., made but slight impression upon the affection, both the distended joints were tapped, and the contained fluid, which was limpid and serous, drawn off through a small canula. Great care was taken to prevent the ingress of air, and the knees were subsequently tightly strapped with long bands of emplast. hyd. c. ammoniac. The tappings were repeated about four times in each joint, and the patient was ultimately discharged as cured, his knees being void of fluid, but still swollen in consequence of great thickening of the synovial membrane.

(To be concluded.)

THE MEDICAL CHARITIES OF LEEDS.

MEDICAL PRACTICE IN THE INFIRMARY.

(Concluded from page 242.)

Turning to the Medical practice to be seen in Leeds, we would observe that, owing to the insufficient size of the Hospital, the number of beds assigned to the Physicians is rather small; but to make up for this, although there is a Dispensary in the town, there is always a large attendance of out-patients, from whom the clinical teacher, Dr. Allbutt, draws largely for educational material, especially in cerebral disease and chest affections.

In most of the Northern manufacturing towns we have observed that rheumatism is extremely common, and so it is at Leeds. One or two very extraordinary cases of this kind came under our notice. One woman we saw was suffering under violent mental and motor ataxic disorder, following immediately on the recession of articular pain. The movements were choreic, but there was no affection of the heart; indeed, the patient looked more like one suffering from acute mania than anything else. These nervous symptoms of rheumatism are far more common than many would believe. Dr. Allbutt told us of one case in which he had been called in to see a patient apparently attacked with severe spinal meningitis. She was in a tetanoid condition, and probably paraplegic; still there were certain symptoms which led him to conclude that the disease was really rheumatism, such as sour sweats, etc., and accordingly to give a somewhat more favourable prognosis than he otherwise would have done. The treatment for all such cases is by sedatives, and in this instance the application of belladonna to the spine, and the exhibition of morphia hypodermically, were followed in forty-eight hours' time by a violent articular rheumatism, with complete cessation of meningitic symptoms, but the patient did not recover until her heart had been seriously affected. Again, as an example of the *delirious* form of rheumatism (Trousseau) we may cite that of an unusually healthy temperate man, who had a mild attack of rheumatism, the heart not being implicated even in the end. Under full alkalies he seemed to come round at once. By-and-by he began to show insomnia—an open-eyed quiet state, utterly sleepless; this lasted for three days. A powerful opiate was given him. That night he was a little delirious; then the delirium increased, and became day by day fiercer and fiercer. His temperature rose to 106°; and he became extremely violent, constantly crying out. The delirium was kept in check by large and repeated doses of morphia, and so he was pulled through, the delirium growing less, and sleep becoming more natural and continuous. He was delirious altogether about ten days. The temperature fell 3° the day before a marked improvement, and before any change of pulse or of delirium indicated this amelioration. He had no new outbreak in the joints, and soon recovered completely, both in body and in mind. As an illustration of the *comatose* form, we may take the case of a coachman, healthy and temperate, who had rheumatic quinsy, dysphagia, redness and œdema of tonsils and uvula. These grew better, but sour sweats continued, with watchfulness, as in the preceding case. This went on for two days and a half, when delirium became slightly manifested. The heart and lungs were assiduously examined; nothing was found to account for these nervous symptoms. The subcutaneous injection of morphia was ordered. The same night he became furious, and unfortunately he was allowed to walk about naked. Next morning at 10 a.m. he seemed quiet and sensible; at 3 p.m., after a morphia injection, he grew dozy; at 5 p.m. more delirious again; at 10 p.m. he was hopelessly comatose, and although blistered on the head and legs he died comatose about 1 a.m.

There was pointed out to us a patient then convalescing who had suffered from a rare complication of rheumatism—viz., œdema of the glottis. Two young women, much alike in age, circumstances, and severity of attack, but one of a slighter and more delicate look than the other, came on the same day under Dr. Allbutt's care for acute rheumatism, and were placed in neighbouring beds. Both were placed under full alkaline treatment, and one rapidly recovered, while the other, the more delicate-looking one, went from worse to worse. Her first complication was œdema of the glottis attended with crowing, and for a day or two she was in great danger, so that tracheotomy was ordered to be performed if she obtained no relief. It was not found absolutely necessary, however. As the œdema passed off she suffered from pleurisy, pericarditis, and endocarditis. (N.B.—Her urine was alkaline in forty-eight hours, and was kept so.) There is an allusion to rheumatic œdema of the glottis in Sestier, "Traité de l'Angine Laryngée Œdémateuse" (p. 105 : 1852).

Too often heart affections of a serious nature are left behind rheumatism, although they may not immediately, or even for several years, cause death. A case in the Hospital showed this plainly enough. There can be no doubt of the fact that heart disease in a man who can afford to keep himself quiet and undisturbed is a very different thing from heart affection in one compelled to work hard for a livelihood. Still, the case to which we refer shows that, even in the labouring classes, a man may go about for years with a heart affection which will ultimately carry him off.

The man of whom we speak was aged 60, and had both mitral and tricuspid regurgitation to a considerable extent. He had suffered from rheumatic fever five-and-twenty years before, and has almost ever since been afflicted with palpitations and dyspnœa. He has not been able to do a hard day's work since that time, but has earned a tolerable livelihood by the lighter kind of work at marble polishing. Many of our readers will remember Dr. Allbutt's admirable lecture on the uses of Prunus Virginiana (upon which this man was doing well), published some time ago in our columns. He there pointed out its great value in certain forms and stages of heart disease; its uselessness in others. Thus, to give the Prunus Virginiana to a patient labouring under all sorts of dropsical effusions would be useless—in reality, a waste of time; but to the same patient, after these effusions have been expelled and the heart is labouring to return as nearly aspossible to its normal condition, Prunus Virginiana may do all the good in the world. Another valuable application of this drug which is apt to be overlooked is its use in certain forms of irritable dyspepsia.

A very extraordinary case occurred in Dr. Allbutt's practice some time ago. A man was labouring under pericarditis, and the fluid had accumulated to such an extent that death was imminent. Mr. Wheelhouse, at the request of Dr. Allbutt, tapped the sac with a fine canula, withdrew the contents, and the patient perfectly recovered.

On Fridays there is a skin clinic, valued by the teacher, Dr. Allbutt, as a means of training the students in diagnosis. There is also in summer a clinic for mental diseases, conducted by Dr. Crichton Browne, the Superintendent of Wakefield Asylum, in that institution, which is only a few miles distant from Leeds. A favourite plan adopted in Leeds in tracing the progress of disease is to weigh each patient at regular intervals, and thus ascertain whether the disease, as indicated by the general health and variations in nutrition, is advancing or retiring, and whether the progress of it is likely to be rapid or the reverse. In two allied diseases we find a marked contrast in this respect, enabling one to form a sort of diagnosis between them. These are tuberculosis and caseous pneumonia, which differ wonderfully in their effects on general nutrition.

One fact as to treatment, which we found traditional at Leeds, is, we think, well worthy of general attention. In most places the use of sarsaparilla in secondary and tertiary syphilis has been abandoned, and we had lost all faith in its efficacy. What we saw at Leeds, however, has compelled us to modify our opinion, for some cases were brought under our observation which had gained most marvellously in a very

short time by the use of sarsaparilla alone. The practical point is this—ordinarily sarsaparilla is prescribed in too small doses to do good; to reap the full benefit of its exhibition, sarsaparilla must be given not by the ounce, but by the pint. The cost of a pint of the compound or even of the simple decoction a day is something considerable; but there are many who would not grudge ten times as much to receive the benefits we are convinced it is capable of producing.

Finally, we must thank all the officers of these institutions for their kindness and their courtesy.

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Medical Times and Gazette.

SATURDAY, APRIL 4, 1868.

FARNHAM WORKHOUSE INQUIRY.

"Languescet industria, intendetur socordia, si nullus ex se metus aut spes, et securi omnes aliena subsidia exspectabunt; sibi ignavi, nobis graves."—*Tacitus.*

The Inspectors appointed by the Poor-law Board to inquire into the truth of the statements which had been circulated as to the condition and management of the Farnham Workhouse, have published their report, which, we confess, appears to us a fair and honest one. It seems that this workhouse, like a personage whom it is not proper to name here, is, after all, not so black as it has been painted. Indeed, we are much disposed to believe that workhouses and workhouse management generally have been visited with a great deal more abuse than the facts of the case warranted. One very remarkable circumstance has been established with regard to these institutions—a fact which we have no right to ignore—viz., that, although they are the homes of the sick and destitute, and therefore of humanity in its worst and lowest condition, both of constitution and health, yet that they present a greater freedom from diseases of an infectious or septic character than any of the best conducted of our general Hospitals. Pyæmia and puerperal fever, the scourges of our large Hospitals and lying-in institutions, are almost unknown in workhouse infirmaries; while typhoid and typhus fever, erysipelas, and diseases of a kindred nature are of very rare occurrence. These facts show that they, at any rate, serve fairly well the purposes for which they were originally intended, and that they enjoy an immunity from so-called Hospital disease which is not granted to our more pretentious and elaborate charitable establishments.

But with regard to the special case of the Farnham Workhouse, we shall find, by looking over the evidence which has now been published, that many of the statements which were made respecting it were greatly exaggerated, and others entirely without foundation. We purpose in this article to refer briefly to a few of the most important of these charges, the answers made to them, and the Poor-law Inspectors' comments thereupon.

First, with reference to the charge that this workhouse "is a perfect marvel of bad construction for any purpose, whether of simple dwelling or still more of the housing of sick persons," the Inspectors report—"The wards themselves, both with respect to size and height, are not unsuitable for purposes of sick wards, certainly not so for purposes of simple dwelling." Next, the syphilitic wards are complained of as "extremely bare and gloomy;" and this was explained to mean that they "were not cleanly-looking painted walls, decorated with a few simple prints." Was it to be expected that the guardians of the Farnham Workhouse would provide wards with "painted and decorated" walls for the prostitutes from the camp at Aldershot whom they regarded as unjustly thrown upon their hands? "At the time of our inspection," the Inspectors observe, "they were fairly white and clean." As to the drinking basins described as "coarse slop-basins of yellow crockery, which hold by turns the beef-tea, the porter, and any other drinks that may be ordered for the sick," it is observed that they were yellow basins of the ordinary ware, and such as are seen in use in the cottages of the neighbourhood. When emptied, the basins went back to the kitchen to be washed, and the nurse stated that the crockery they have had for use has always been clean. It appears, however, that the inmates of the infirmary were provided with mugs as well as basins.

But after all, in the name of common sense, what is there to complain of in the circumstance that the inmates of the lock wards of a workhouse infirmary have "coarse slop-basins of yellow crockery" to drink out of? What would those who object to them desire to see substituted in their place? Are they prepared with designs for æsthetic slop-basins, made, of course, of no such vulgar material as "yellow" crockery, which may be introduced into the lock wards of our Hospitals and Infirmaries?

Next as to the arrangements for nursing. The *Lancet* report states:—"There is but one paid female nurse (a good and skilful woman, but not capable of ubiquity) aided by one *broken-down male pauper*, who has been five times tapped for dropsy, for all nursing purposes in the house whatever." In the evidence we find it proved that the nurse has always had the assistance of some of the paupers. On October 12 the nurse had two pauper nurses in the infirmary—viz., William Murphy and Catherine Stevens, Murphy being the person described as the "broken-down male pauper who has been five times tapped for dropsy." Murphy deposed that the last time he was tapped for dropsy was about two years ago. He said he was not so very weak, and in the spring of 1867 he asked Mr. Barrett, one of the guardians, to get him a situation as groom, as he thought he was fit for an easy place. He also stated that he had been recommended as nurse by the Medical officer. Dr. Powell admitted that he had always found Murphy a good nurse, and added, "I could not find so good a one as he in the house; he was always very willing, and I never *heard a complaint* against him." But in considering this question of nursing it is highly important to bear in mind that the average weekly number of cases actually under treatment during the year ending Lady-day, 1867, was only forty-six, and that out of these the number of persons *confined* to their beds in the male wards of the infirmary has been about *ten*, and *not more than three or four* in the female wards; so that, for the purpose of nursing thirteen or fourteen persons *in bed*, there were one paid female nurse and two pauper assistants. For the life of us we cannot see anything so very shocking in this. The chairman of the board of guardians stated that he had always considered the nursing staff sufficient, and that the guardians never had any complaints from any nurse that it was not so. The vice-chairman said that the guardians had never considered that the number of sick was sufficient to render the appointment of another paid nurse necessary. He considered that all the women in the house were available for the purpose of nursing. We find also, by reference to the evidence of Dr. Powell, that he has never complained to the guardians of the insufficient staff of nurses.

The children were stated to have no toys, no amusement no education. The reply to this is that it is the practice to send the children at 5 years of age from the workhouse to the district school, that they were allowed to play in the yard in the daytime, and, as to toys, in *March last* (that is to say, about six months before the visit of the Commissioners) the guardians made a collection amongst themselves, amounting to about twenty shillings, for the purchase of toys. The fact then is, that these much-abused guardians had actually subscribed for a pound's worth of toys for the children only six months before these charges were brought against them. We wonder how many shillings the industrious poor who *don't* send their children to the workhouses spend annually on toys? We are tempted to repeat Captain Newcome's observation, that these complaints are "perfectly ridiculous and frivolous, considering where the children came from and where they go to."

Much was made of the circumstance that some of the old women were found eating their dinners without forks. It appears, however, that some of them had their forks in their pockets, and that they generally prefer using their fingers. But the Inspectors' report is crowded with instances of overdrawn statements and inaccuracies. Let us take another example from the published description of the infirm men's room. It is said to be "barer and more cheerless than any prison cell of modern construction." Dr. Powell observes of the same apartment:—"There are four windows in the old men's day room. It is as light and cheerful as a room can be with bare walls." We cannot boast of any familiarity with prison cells, but if it be true that there exist cells for the accommodation of our criminals compared with which a "light and cheerful" room with four windows is "bare" and "cheerless," our own conviction is that the sooner such cells are shut up, the better it will be for all honest people.

We now come to the description of the vagrant wards. These have been described as "two rabbit-hutches on rather a large scale." Dr. Powell, however, testifies that "the female tramp ward is about eighteen feet long, about nine feet high, and about ten feet wide, and that there is a door fitting fairly, also a window without glass, with a shutter fitting fairly. It has a roof, and on the whole keeps out wind and weather. I know that there is a raised platform lying on an inclined plane, and extending the whole length of the room, as in a guard-room of barracks; on this platform are standbeds." "I should not say they were comfortable or uncomfortable. The tramps are glad to lie upon them." "I have never known any ill-effects from the arrangements in this tramp ward." Such is the Medical officer's account of the "rabbit-hutches." The guardians were further charged with having caused "faint and weary travellers" to be locked up all night in the vagrant wards without food, and "this though the Medical officer repeatedly begged that at least a slice of bread might be given to these wanderers." With respect to this charge Dr. Powell deposes—"I have never made any applications, except in my letter to the guardians, for any food for the tramps. I have never asked the porter to give any. I never asked the master for any." Dr. Knowles, the former Medical officer of the workhouse, said that he remembered bread was allowed to tramps when they came in—that was many years ago. He believed it was discontinued owing to the great waste; much of the bread was found thrown away on the dunghill the next morning.

All the tramps received half a pound of bread on leaving in the morning. Women with children invariably had bread at night. It was withheld at night from "the usual class of able-bodied male vagrants," said the master, "and in ninety-nine out of a hundred cases they have not asked for any." But who are those vagrants, or "wanderers," as the *Lancet* Commissioners [illegible] They are those vagabonds that are known only too well all over the country—gaolbirds, deserters, and "wanderers" from every laborious and honest occupation—scamps who will "wander" into the poor man's dwelling if the back door be left for a moment open and unguarded, and remove anything portable that they find in their way—wretches who rob farm-yards, and gardens, and orchards, and commit every kind of devastation and depredation. Is it to be expected that the farmer-guardians will have much sentimental pity for such *canaille*, or, when they choose to turn into a workhouse for a night, will provide them with feather beds, foot baths, and a hot supper?

Much, again, was made of the case of a woman named Frances Hopkins, a female tramp, described as "known to be on the verge of confinement," and "who was locked up all night in the female rabbit-hutch." The *facts* of the case are as follows:—The woman had received an order for admission from the assistant relieving officer of vagrants, who is also the resident superintendent of police. He did not perceive that she was in the family way; she walked very well after she got the order, and she did not make any complaint. She saw the matron when she came to the workhouse, but said nothing about herself. The porter who took her down to the ward, stated that, when he went to the ward the next morning, she said she wanted assistance, as she was in labour, and he told her, if she had mentioned overnight the state she was in, she would not have been put down there. The woman was able, with help, to walk to the lying-in ward. The Medical officer was called in, but, as the labour was not sufficiently advanced for him to be of any service, he went away. She was not confined until between 3 and 4 in the afternoon. Soon after this case occurred, the guardians gave a direction that every tramp admitted afterwards should be seen by one of the responsible officers of the workhouse. The Inspectors report of this case as follows:—"It will, we think, be evident to the Board that the statement that Frances Hopkins was 'known to be on the verge of confinement' when she applied for admission, and was afterwards admitted to the vagrant ward, has not been substantiated."

We now reach the most serious charge which had been brought against the officials of this workhouse, and we shall see by the evidence and by the judgment of the Inspectors that it is just as inaccurate as the other statements to which we have alluded. It was stated that the late master "chose to think that an epileptic inmate, who had remained in bed to repose himself *after a severe fit*, was unduly self-indulgent, and made him get up and go into the garden to ladle out manure from a cesspool. The lazy man perversely went into another fit, fell into the liquid sludge, was pulled out three-parts drowned, and a few hours afterwards gave up his fits and his life together."

The facts of the case are these:—John Tuckey, the unfortunate man in question, was employed on December 28, 1866, in clearing out the large cesspool in the garden; he fell in, and died on the following day. The verdict of the jury was that he "accidentally, and by misfortune, fell into, and was immersed in, the soil of the cesspool; from the effects of which, and the noxious qualities of the same soil, and from congestion of the lungs consequent thereon, he died." Mr. Barrett, the Vice Chairman, stated that Tuckey had worked for him, that he was a drinking man, and that his fits came on after drinking. Had he been in his employ he should not have thought it improper to set him to work at emptying the cesspool. The late master says:—"I saw him in a fit once; it lasted a couple of minutes or so. It was the only occasion that I saw him in a fit; there was no struggling and no noise. He did not fall down; he recovered very soon." Dr. Powell proved that Tuckey had never been a patient in the infirmary, and that he had never seen him except on admission. George Morley, an inmate, stated that he had seen Tuckey in one or two fits, and that they lasted a very short time—about a minute to a minute and a half. "The last fit that I saw Tuckey in might have been *one week*—it might have been *two*—before he fell into the cesspool. No

person went into the bedroom that morning, and requested Tuckey to get up. He had no fit that morning; he went in to breakfast with the other men about half past seven. I saw him then." Dr. Powell again states—"From what I have since heard from the men in the house I understand that the man did *not* have a fit. I have asked them as carefully as I could." The master further states that when he went into the room to order the men to empty the cesspool "Tuckey was one of the men sitting in the room, and all the men who usually worked in the field, of whom Tuckey was one, went to do it. I gave no special directions to Tuckey. I had not seen him in bed that morning. It was about ten minutes past eight o'clock." Mr. Eager, the Medical officer of the Guildford Workhouse, who was examined at the inquest, said:—"The opinion which I have given is not inconsistent with the supposition that the man may have fallen in by accident, and not in a fit." After hearing a great deal of evidence on this case, the Inspectors state:—"It is not easy to determine, from the statements of the witnesses, whether the fits to which Tuckey was subject were epileptic fits or not; and beyond the statement of Burrell, who *thought* Tuckey was in a fit when he fell into the cesspool, but he did not *know* whether he was in a fit or not when he fell, *there is no proof whatever that he had a fit at that time.* Indeed, it is quite possible that he may have slipped or overbalanced himself when he stooped down on the brink of the cesspool to dip out the sludge. One conclusion, however, is quite certain—viz., that the very serious allegation that the late master 'chose to think that an epileptic patient, who had remained in bed to repose himself after a severe fit, was unduly self-indulgent, and made him get up and go into the garden to ladle out manure from a cesspool,' is not only not supported by the evidence, but conclusively disproved by it."

In conclusion, we desire not to be misunderstood. We should be the first to vindicate the right of the press to make such inquiries as our contemporary undertook. We would at the same time acknowledge most freely that it is in human nature, and especially in official human nature, to fall into habits of indolence and neglect, and, therefore, to need the stimulus of public criticism to keep it fully alive to its duties and responsibilities. But for this very reason all exaggeration in the charges brought against official persons is the more to be regretted, as it discredits the whole thing by plainly indicating motive or bias; so that anything that wears the aspect of a cry got up by a particular party can never avoid being regarded with suspicion. In this particular case we would also insist that it is not just to deal with the pauper in a spirit of sentimental commiseration, or that he should be better provided for than the poor rate-payer who is taxed to support him; and while the rate-payer, in many instances, cannot afford to get luxuries for his sick mother, or wife, or child, we have no right to supply the pauper with them out of the taxes which he pays. The Poor-law administration is a matter of *justice*, not of *charity*—of justice to the pauper, but no less of justice to the ratepayer.

THE ELECTION OF PRESIDENT AT THE ROYAL COLLEGE OF PHYSICIANS.

The annual election of a President of the College of Physicians will take place on Monday next, April 6, and it is generally understood to be the wish of a great body of the Fellows that the re-election of a retiring President shall no longer be considered a matter of course. It is inevitable that, in a body which includes representatives of so many schools of thought, there shall arise from time to time some sort of struggle for preponderance, or at least for ultimate preponderance. It is strongly felt by those of the Fellows who are most deeply engaged in the active work of Medical teaching and scientific investigation that not even the dignified presence, the high social position, and scholarly accomplishments which so eminently distinguish the present President can suffice at the present crisis, without a warmer personal interest in the advance of Medical science and Medical education than he is believed to possess. It is generally supposed (and whether the supposition be justified matters not—we are now dealing with ideas actually current, whether well founded or no) that the tendencies of the College policy under Dr. Alderson have been more reactionary than during the five years' presidency of Sir Thomas Watson. Hence a desire to have as the new President one who may be supposed to represent a different line of thought. Many have been the names suggested. That of Sir Henry Holland, whose sympathies with science are undoubted, naturally presented itself; whilst some were for at once making a stride onwards and putting forward Sir W. Jenner or Dr. Gull. But, after much consideration, it has been resolved to put forward the name of Dr. C. J. B. Williams, who, as a distinguished Physician of enlightened and progressive scientific views, would ably represent the College to the scientific world, while he would preside with dignity over its affairs. We venture to hope that this nomination will receive the support of the great body of the Fellows.

THE EXTENT OF VENEREAL DISEASE AND THE MEANS OF CHECKING IT.

The Association for Promoting the Extension of the Contagious Diseases Act of 1866 are about to issue a report, a copy of which has just reached us, on the above subject. We imagine that its contents will do much towards enlightening the public as to the evils of allowing the present state of matters to go on unchecked. Last week we alluded to Dr. Dickson's letter with regard to the condition of the port of London, and the means necessary for its improval, which, as independent testimony, will go far to corroborate the statements of this Association. And what everybody who takes an interest in these matters wants is simple enough. The measure of 1866, when properly wrought, has been productive of much good among soldiers and sailors, even although its provisions extend only to certain localities which are at all times liable to be invaded by diseased individuals from infected stations. Why not render this impossible by granting protection to the whole population?

It must be borne in mind that the Association is opposed to anything like the licensing system prevalent in some parts of the Continent. And this we hold to be right, altogether apart from any moral considerations. From time to time we have directed the attention of our readers to the state of the prostitutes brought to the Female Lock Hospital from Woolwich, Chatham, etc., and we have pointed out that some of them, when brought in, have no appearance of disease externally. We have reason to believe that the speculum is not quite so freely used elsewhere as it is at the London Lock, so that a Surgeon might be led to discharge a woman quite capable of propagating disease under the impression that she was cured; still more women might be passed without having anything noticeable beyond a slight uterine discharge, almost, if not perfectly, undistinguishable from the healthy one, and these may infect their paramours. Then, again, who will venture to put a limit on the contagiousness of secondary syphilis, or say that a woman who has once suffered from the disease is incapable of propagating it at any subsequent period of her life? For these reasons, if for no other, no woman should be provided with a clean bill of health. The system of only examining those who are said to have communicated disease is bad; the women thus examined, whether clean or not, are stamped. Every woman known to the police should be examined periodically. All of them object to the principle of selection. But, as every one knows, examination without the means of cure is useless. Before any such act can be brought into play, large Hospital accommodation must

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be provided, and this, we think, ought to be done. But we object to laying further burdens upon one special class of the community—the already overburdened ratepayers. It may, indeed, be argued that any expense incurred by the community at large would be more than counterbalanced, even in a pecuniary sense, by the suppression of disease. Let, then, the necessary expense come out of the quota which beer, spirits, and tobacco contribute to the public revenue; but it would be a shame to see women, living publicly in vice, treated sumptuously in Hospitals at the expense of the poor ratepayer. Would that some means could be found to render forced labour profitable, and that public women cured at the public expense were forced to reimburse the community, either in money or work.

An important part of the evidence on which the report is founded is contributed by Mr. Berkeley Hill, who has visited several towns in the south of England to ascertain the condition of those who propagate the disease. His statements with regard to these matters are of much interest, and from our own experience—for we have visited some of the principal towns in the north and middle of England with a similar intent—we can most amply corroborate him. All who are best acquainted with the present state of matters, whether as under the Contagious Diseases Act or without it, are unanimous in their wishes for its extension.

THE WEEK.

TOPICS OF THE DAY.

As we predicted, the Poor Relief Bill introduced into the House of Lords by the Earl of Devon is essentially a moderate measure. Its main objects are to confer extended powers on the central authority; to enable the Poor-law Board to provide paid nurses and efficient inspection in unions where the guardians prove negligent or obstructive; to extend over country districts the right which the Board already possesses in London of enforcing the supply of necessary furniture and appliances for the sick in workhouses; and Lord Devon also proposes to combine unions into districts for the purpose of providing better asylums for the care and maintenance of harmless lunatics. There is no provision in the Bill for any special Medical inspection of workhouse infirmaries. The Bill, however, is referred to a Select Committee of the House of Lords, and it would be at present lost labour to discuss its merits or demerits.

The discussion in the House of Commons on the "unseemly congestion" of the various collections in the British Museum, and upon the best mode of governing that institution, led to no practical result, except that the Prime Minister again pledged himself to the separation of the collections, for which we suppose a bill will be introduced during the present session. Would it not be better that the ministerial policy of leaving vexed questions for determination by the new Parliament should be extended to the British Museum? We believe that the new constituencies would be strongly opposed to the separation of the national treasures of art and science and the deportation of the most instructive and popular collections to South Kensington. The report of Mr. Gregory's speech on the subject which appeared in the *Times* has given rise to an amusing correspondence. Mr. Gregory is reported to have said, "Professor Owen had strongly condemned the present system of conducting the business by a secretary and chief librarian who (referring to Mr. Panizzi) never scrupled to express the most thorough contempt for science." This, of course, immediately drew an indignant rejoinder and denial of any—to say nothing of the most thorough—contempt for science from Mr. Panizzi. Professor Owen then writes that Mr. Gregory has no ground for using his name as authority for such a statement, and he challenges Mr. Gregory to prove his having uttered it. In the same paper, however, containing Professor Owen's disclaimer is a letter from Mr. Gregory, in which he states that what he said was that Mr. Panizzi had never scrupled to express his thorough contempt, not for science, but for *men of science*, and in proof he gives the following piquant *morceaux* from Mr. Panizzi's published evidence before the Select Committee on the British Museum:—

"Scientific men are jealous of their authority; they are dogmatical and narrow-minded, and as they think themselves infallible they would never consult an officer. I speak from what I have known of them."

"4930. The scientific men would spoil the men of rank or drive them away from the Board. I speak seriously, and from experience. An officer would have no chance against a scientific man who should take a crotchet, and they are all crotchety."

"4933. I never saw scientific men go right or view things as other people do. I think the trustees would be much better without them."

Holding these opinions as to men of science, we certainly do not wonder that Mr. Panizzi has been an earnest advocate for transporting them and their collections to South Kensington.

The abolition of flogging in the army is the natural consequence of the modern attempt to improve the social, physical, and mental status of the soldier. The fact that there were only seventeen men flogged last year in the whole British army was sufficient proof that corporal punishment is not necessary for the maintenance of discipline. The exceptional seventeen were only flogged for disgraceful crimes, such as robbing comrades, etc., and they would have been as well dealt with by the civil power. It must not be supposed, however, that the abolition of flogging in the army is due to any public feeling against corporal punishment in the abstract. Garrotters are flogged to the infinite satisfaction of the public. But soldiers are no longer to be flogged, because people hope and believe them to be a better class of men than they once were. If the improvement has not taken place already, society has faith that it is in progress. When it is perfected, perhaps we shall come to the conclusion that they are too good to be "food for powder"—a conviction which would react beneficially upon the assessed taxes.

During the past week there have been several actions against railway companies to recover compensation for personal injuries, in which the public have been, as usual, edified by the exhibition of the divergence of Medical opinions when advanced on behalf of plaintiff and defendant. In one case, by one side it was asserted that a patient was suffering from nervous shock, the effect of a railway accident; by the other side, that he was suffering from liver disease, the result of conviviality, and that he had "a commercial traveller's tongue," indicating that the owner took ardent spirits. The jury, however, perhaps partly out of fellow feeling, awarded the possessor of the tell-tale organ £1500. We are glad to see that in the case of Hands and wife *v.* the Midland Railway Company, the Company, bowing to the decision of the Court that pecuniary arrangements should not be made by Medical men, consented to give the plaintiffs a further sum than that which had been arranged by the Medical officer of the Company with the assent of the plaintiff's own Medical adviser. It would remove much occasion for scandal if any bill for the better management of railway companies which may obtain the assent of the House of Commons contained a provision by which claims for compensation may be settled with the consent of both parties by independent assessors, assisted in Medical questions by competent and unbiassed Medical advisers.

Some new light has been thrown on the relation of Medical work and Medical income by one Mr. Philips, a member of the Board of Guardians of Kingston, Surrey. People have hitherto supposed that Medical pay was to be in proportion to Medical work—the more of the latter the more of the former, as in other departments of industry. It seems, however, that Mr. Philips has discovered that Medical public pay should be regulated by Medical private practice—the more of the latter, the less of the former. A proposition was brought before the

Board of Guardians to increase the salary of the Poor-law Medical Officer of the Teddington district, on the ground that the pauper population had largely increased. This proposition, according to the *Surrey Comet*, was opposed by Mr. Philips, on the ground that if the pauper population had increased the other population had increased also; therefore that the Medical man's private practice had grown, and he was not in need of any more parochial money, although Mr. Philips did not dispute that he had to do more parochial work. The ingenuity of the argument was great, but it was too clever to convince the rest of the guardians, who voted an increase of £10 to the salary of the Teddington Medical officer, Mr. Clement.

The decision of the Poor-law Board in the case of Dr. Gale — the Medical officer of the Poplar Union, who was charged with allowing a pauper patient to die of strangulated hernia without any Medical aid, except that rendered by an unqualified assistant, who overlooked the disease—allows Dr. Gale to retain the appointment, on the ground that this was the first complaint that has ever been made against him, and in consideration of the large number of patients under his care at the time. They have, however, administered to him a severe reprimand, which we think would have been far more severe than the circumstances warranted, were it not that Dr. Gale had excused himself from providing a qualified assistant on the plea of the smallness of his salary, £105; whereas the Poor-law Board state in their letter that the principal part of Dr. Gale's remuneration is derived from midwifery, surgery, and vaccination fees, and that in fact the total sum paid to him by the guardians during the past year (inclusive of £84 12s. on account of the services of an assistant) was £153, and that the guardians also paid for cod-liver oil and quinine. Now we do not for one moment intimate that Dr. Gale should have been obliged to support a qualified assistant out of his pay, seeing that the guardians had withdrawn the salary for an assistant which they last year allowed. But it is to be regretted that Dr. Gale did not at first make a full statement of the circumstances of the case, which would then have gone far to extenuate the neglect which the case at first sight suggests.

The next meeting of the St. Andrews Medical Graduates' Association will be held on Wednesday, April 8, at the rooms of the Medical Society of London. A circular issued by the Honorary Secretary states that, in consequence of the present political situation and the numerous subjects demanding the attention of the Association, it has been determined to defer the debate on the Medico-legal bearings of insanity to a subsequent session. The Association seems in a flourishing condition, for there are no less than ninety-three new members to be balloted for. In the list of agenda at the coming meeting is a communication from Mr. Glaisher on a scheme for mutual co-operation in Medical meteorology, and a proposal by the President, Dr. Richardson, for the organisation of a plan for the systematic registration of disease in the United Kingdom, which we sincerely hope may be found practicable.

The meeting of the Volunteer Medical officers, which took place on Tuesday last, we hope may lead to a proper organisation of the Medical service. It cannot be the intention or wish of the authorities to humiliate and disgust the members of a learned Profession, who have offered their Professional talents to the public service, by keeping them on public occasions in the background, and depriving them of that organisation which can alone render their services useful. We believe that the complaints of the Volunteer Medical officers have a real foundation, and we hope that the Government will willingly assist in removing the grounds on which they rest. It is hoped that all Volunteer Medical officers will give their support to the movement by joining the Association.

We are glad to see that the condition of the poor in the Old Town of Edinburgh is receiving the attention which it strongly demands, and that something like united action to remedy the present terrible state of things is to be undertaken by the different bodies of religionists and philanthropists of the North. Sir James Y. Simpson, in the course of a speech which he delivered at a large public meeting in Queen-street Hall, Edinburgh, on Monday last, drew a terrible picture of the lodging-houses of the Old Town. He said that there were 13,000 families, or 60,000 individuals, living in houses consisting of one room. Fifteen hundred rooms are the residences day and night of from five to fifteen persons. Of these houses 120 are without windows, and 900 are cellars. These numbers are given on the authority of a careful report by Dr. Alexander Wood, who, we are sorry to see, was prevented by ill-health from attending the meeting. Sir James spoke as he always does, sensibly and eloquently, in favour of organisation and the united action of all religious parties to meet an evil which is as disgraceful to Edinburgh as a university town and a stronghold of philosophy as it is to it as a Christian city.

The lecture on anæsthetics which Sir James Simpson delivered at a *conversazione* held at the Royal College of Surgeons in Edinburgh was, as might be expected, full of interest. Sir James's historical and antiquarian knowlege enabled him to trace the history of the art of soothing pain from the imperfect science of the ancients through the mists and superstitions of the Middle Ages, through the period of witchcraft and its punishment (for a poor lady was burnt in Edinburgh, in 1591, "for employing charms and other means to cast off the pains of labour"), down to the time of ether, chloroform, and bichloride of methylene—or chloro-methyl, as Sir James prefers to call it. But a part of his address, of no less interest, was a letter which he read, written to him several years ago by the late Professor Wilson, wherein, in most graphic words, Wilson described the sufferings he himself had undergone in prospect of, and during, an operation before the days of anæsthetics. We cannot refrain from a quotation:—

"The week, so slow, and yet so swift in its passage, at length came to an end, and the morning of the operation arrived. . . . Before the days of anæsthetics, a patient preparing for an operation was like a condemned criminal preparing for execution. He counted the days till the appointed day came. He counted the hours till the appointed hour came. He listened for the echo on the street of the Surgeon's carriage. He watched for his pull at the door bell; for his foot on the stair; for his step in the room; for the production of his dreaded instruments; for his few grave words, and his last preparations before beginning. And then he surrendered his liberty, and, revolting at the necessity, submitted to be held or bound, and helplessly gave himself up to the cruel knife. . . . The operation was a more tedious one than some which involve much greater mutilation. It necessitated cruel cutting through inflamed and morbidly sensitive parts, and could not be despatched by a few swift strokes of the knife. I do not suppose that it was more painful than the majority of severe Surgical operations are, but I am not, I believe, mistaken in thinking that it was not less painful, and this is all that I wish to contend for. Of the agony it occasioned I will say nothing. Suffering so great as I underwent cannot be expressed in words, and thus fortunately cannot be recalled. The particular pangs are now forgotten; but the black whirlwind of emotion, the horror of great darkness, and the sense of desertion by God and man, bordering close upon despair, which swept through my mind and overwhelmed my heart, I can never forget, however gladly I would do so. . . . . During the operation, in spite of the pain it occasioned, my senses were preternaturally acute, as I have been told they generally are in patients in such circumstances. I watched all that the Surgeons did with a fascinated intensity. I still recall with unwelcome vividness the spreading out of the instruments; the twisting of the tourniquet; the first incision; the fingering of the sawed bone; the sponge pressed on the flap; the tying of the blood-vessels; the stitching of the skin; and the bloody dismembered limb lying on the floor. Those are not pleasant remembrances. For a long time they haunted me, and even now they are easily resuscitated; and though they cannot bring back the suffering attending the events which gave them a place in my memory, they can occasion a suffering of their own, and be

the case of a dispute which favours neither mental nor bodily health. In cases of this kind those subjects of [illegible] who receive either form are, of course, free; and could I, even now, by some Lethean draught, erase the remembrances I speak of, I would drink it, for they are easily brought back, and they are never welcome."

From a Cape paper of February 19 we see that Dr. Stirling, Staff-Surgeon and Medical storekeeper of the Naval Hospital at Simon's Town, has been sent home by the officer commanding on the station, Commodore Randolph. It seems that Commodore Randolph entertained one opinion as to the proper time for visiting certain patients, and Dr. Stirling entertained another. This clashing of opinion upon a question which was certainly intrinsically a Medical one, led the Commodore to suspend and supersede Dr. Stirling, and the latter has returned to England to submit his case to the Admiralty, to whom had already been sent the written evidence on both sides. We believe that the line of action taken by the Commodore is at variance with the established laws of the service, and we think that the best course the Admiralty could pursue would be to promote Dr. Stirling to the rank of Deputy-Inspector-General, and to send him back to the Cape, where it is most probable that the commanding officer would show more respect for naval rank than for mere professional status. The case furnishes an example of the necessity of appointing Deputy-Inspectors-General who, from their rank, would command the deference of the executive to all naval Hospitals at home and abroad. This is a measure not only desirable from a Medical point of view, but we believe it would be of direct benefit to the public service. Dr. O'Malley, Surgeon of H.M.S. *Petrel*, has been appointed temporarily to the post vacated by Dr. Stirling.

The Master and Wardens of the Worshipful Society of Apothecaries, London, have appointed Professor Roscoe, of Manchester, to deliver six lectures on spectrum analysis and its applications at the Hall in Blackfriars. The lectures will be delivered during May and June, commencing on Saturday, May 2, at 2 p.m.

Mr. W. W. Wagstaffe, B.A. Lond., has been appointed an Examiner in Arts at the Hall, in place of the late Dr. U. P. Brodribb.

The letter of our Paris correspondent reveals a most uncomfortable state of feeling in the Medical world as regards the conflict between religion and science. Here we are better off, because the free intercourse between professors of religion and of science soon brings them to a common understanding. In this country no Medical school could gain support in which scientific teaching was fettered by quasi-religious restrictions, and, on the other hand, none would be tolerated by the public in which religious doctrines were ridiculed or denounced.

SPECIAL MEETING OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

A special meeting of this Society was held in their rooms on Tuesday last, March 31, for the purpose of making certain alterations in the by-laws of the Society. The meeting was but scantily attended, there being at the hour of meeting some difficulty in making a quorum. As might be suspected from this fact, the alterations and emendations proposed by the Council were received with satisfaction, or, at all events, without active opposition. The President, Mr. Solly, had taken opinion as to the legality of passing these alterations *en masse*, and not one by one, provided there was no opposition to them on the part of the Fellows, which greatly facilitated the business of the evening. The most important of the alterations or emendations are undoubtedly the definition of the privileges of Fellows resident and non-resident, a prolongation of the period after entry in which no subscription need be paid, and a provision that in case of a Fellow misconducting himself so that the Society take steps for his removal, he shall, in the first instance, be summoned before the Council, and there have an opportunity of clearing himself without any public scandal. The privileges of non-resident Fellows are defined as being the right of receiving the *Proceedings* (not the *Transactions*) of the Society, of consulting books and periodicals in the Society's rooms, and of being summoned to all special meetings of the Society, including, of course, the right to vote at such meetings. They may further compound for the Society's *Transactions* by a single payment of £6. All Fellows residing within seven miles of the General Post-office are counted resident Fellows, and, in addition to an entrance fee of six guineas, have to pay an annual subscription of three guineas; but whereas formerly, if they entered in February, they were not called upon for this annual subscription till the next March twelve months, they may now enter in January upon the same terms. For this annual subscription, which the non-residents have not to pay, the resident Fellows become entitled to the use of the library and may have eight volumes in their possession at one time, and to receive the Society's annual volume of *Transactions*. The same privileges may be acquired for non-resident Fellows by the payment of the same sum annually. In reality, little or no changes have been effected; only what was before understood is now definitely settled.

THE CLINICAL SOCIETY.

The last meeting of this most prosperous Society was held under the presidency of Dr. C. J. B. Williams, and, as usual, was a success. First a report was read on Mr. Holthouse's case of rheumatic arthritis, in which, while agreeing with Mr. Holthouse's descriptions, Mr. Maunder and Mr. Bryant differed from him as to its essentially rheumatic nature; whilst Mr. C. Heath held with him. Dr. Marcet reported a peculiar case of complete dumbness, lasting over a considerable period, cured by a single application of the galvanic battery. Feigning was suspected, but, from several other cases of the same kind narrated by other gentlemen, it might be concluded that the case was somewhat hysterical. Mr. Holthouse reported another case, apparently of rheumatic arthritis, and Dr. Greenhow one of what he termed motor-asynergy, usually called locomotor-ataxy. Dr. Hillier read an interesting case of infantile ascites, which gave rise to an extended discussion. Dr. Anstie exhibited a curious case, apparently of congenital aortic disease; and finally Mr. Lee showed the condition of a femoral artery after three days of acupressure. We are vastly interested in the prosperity of this young and thriving Society, and we should be extremely sorry to see it depart from the path of usefulness so plain before it. Sir Thomas Watson, in his admirable remarks made at the former meeting, pointed out the danger it was in of drifting into the condition of a sort of junior Medical and Chirurgical Society, and the transactions of the last meeting showed how much this caution was needed, as some of the cases would far more appropriately have come before the Pathological Society. We hold that no case should be brought forward which does not involve a point of treatment or a question of diagnosis. Again, with regard to commissions, the Society appears to be altogether too lavish: two reports from committees were read, and three new ones appointed. Some of the cases were apparently only brought forward for the purpose of obtaining such a committee of examination. Could not this have been done without taking up the time of the Society? There are apparently two kinds of committees granted—one intended to endorse the diagnosis or opinion of the gentleman bringing a case forward, another to settle any point which may be disputed in the course of the debate. Now, the report of the one is to be looked upon in a different way from that of the other. Should a committee be appointed to settle any disputed point, their report ought, we think, to be final, and no discussion of it be permitted. If,

again, it is only intended to strengthen the hands of the gentleman who reads the paper, let it be appointed without taking up valuable time, and let its report be no bar to subsequent discussion.

There is one most serious tendency which of late we have noticed in our two most highly vitalised societies—that of stifling debate. A certain amount of work is put down on paper, and it must be got through on the evening appointed. One member is unwilling to stand in the way of another's valuable paper being read or specimen exhibited, and holds his tongue accordingly. It is no doubt tiresome to hear the same thing reiterated again and again, but, as we frequently learn most from an unfortunate case, so may we do from adverse criticism. Again, there appears too frequently to be a superstitious reverence for the hour and a half devoted to the purposes of the meeting; the Society will not separate a minute before the time appointed, nor remain an instant after it. Consequently valuable communications may be made just before the hour of departure, and any attempt at the discussion of a valuable fact or theory may thus be frustrated. But perfection cannot be attained at once—*meliora speramus*.

DEATH OF PROFESSOR PIROGOFF.

The death of this world-renowned Surgeon took place a few days ago under extraordinary circumstances. Being at Odessa, Pirogoff was called in consultation to a patient in a village near that city, and on his return was attacked by a gang of highwaymen. He killed two of them, while the others escaped, and he pursued his journey, feeling that he had narrowly escaped the danger of being murdered. But when he reached his house, Pirogoff was seized with symptoms of cerebral congestion, and he soon after expired from the effects of the murderous attack.

CEREBRO-SPINAL MENINGITIS.

Four cases of this disease have occurred within the last three weeks among the troops in Shorncliffe Camp. They have all occurred in the same corps—the 12th Depôt Battalion—and three have been from the same hut, the fourth being from a hut in the same block. Two have had a fatal termination; in the two remaining cases, the characteristic purple spots became fully developed. We have been informed that, on inspection of the huts, particularly with regard to the under-floor ventilation, their state was very unsatisfactory, the external apertures being in many instances closed with shingle, and the earth damp and mouldy from the penetration of the water falling from the roof. It is of course probable that this is only a coincidence, but it is a state of affairs which should at once be rectified. The preference which this strange disease shows for men of the soldiering age living in masses is very remarkable, and will probably yet furnish the clue to its etiology.

ALLEGED STARVATION IN PRISONS.

Under the above title an account of an inquest held by Mr. Humphreys at Mile-end New Town, has been going the round of the papers. A man, said to have been in good health at the time of his committal, was sent to prison for two months: he came out at the end of February weak and emaciated. Since that time he had got worse and worse, and was found dead in bed. Evidence of a certain kind was further put in, which went to show that pulmonary complaints were extremely prevalent among the prisoners at Coldbath Fields, and that several had died in the same way as this man had done. The causes assigned were hard labour and insufficient food. We will not now enter into the merits of the case, but, from what we ourselves have seen long before there was any word of this scandal, we cannot think the charge altogether unfounded. Next week we shall return to the subject of prison discipline.

DR. CRANE AND DR. NEWMAN ON WET *versus* DRY SEWAGE.

Every week brings us fresh evidence that our Professional brethren are becoming more and more alive to the dangers of the watercloset system, and to the expediency of giving at least a fair trial to the dry-earth system of disposing of sewage. Dr. Crane, in a very able "Report on the Sanitary Condition of Leicester, 1867," decidedly recommends the dry system for villages, small towns, and even for parts of large cities; but we must give to Dr. Newman, of Stamford, the credit of putting forth the most advanced views on this subject, in a "Lecture on the Drainage and Water Supply of Towns." Dr. Newman, in one of the fullest, ablest, and most impartial summaries of the whole water and sewage systems, speaks of the invention of the watercloset as the "parent of a gigantic evil," and sums up the desiderata for the town of Stamford in the following terms:—The emptying and uprooting of all existing cesspits and cesspools; the substitution throughout the town of earthclosets for all existing waterclosets and privies, for the double purpose of freeing the subsoil of the town from impurities, and diminishing the consumption of water for closets; the positive *exclusion from the sewers of all foreign matters* (including, of course, excrement), and the closing of surface wells, and introduction of a pure supply from a distance.

CONTAGIOUS DISEASES ACT.

Considerable weight has been laid upon the increase of venereal diseases in a garrison on the arrival of fresh bodies of troops. At Plymouth and Devonport this was particularly remarked upon in a paper which appeared some time ago in a contemporary, and on which we made some comments in an article in our number of December 26 last. We have since been informed that in the above-named stations the most striking instances of an increase in enthetic diseases occurred in one case after the arrival of a regiment from Gosport, where the Contagious Act was already in operation, and in another after the arrival of a regiment from New Zealand; so that in the former case the regiment may be supposed to have already enjoyed the benefit of the Act; in the latter, on arrival from a long sea voyage, the importation of fresh disease is hardly probable. In the same article we also stated our opinion that on whatever cause the immense difference in the prevalence of venereal diseases in the army and navy at Plymouth and Devonport may have depended, it was *not* on the Contagious Diseases Act, and in this opinion we are now confirmed, if we be rightly informed that the naval statistics, being compiled from the returns of the Hospital on shore, only refer to the more serious cases, for which actual treatment in Hospital is necessary, the slighter cases of gonorrhœa, etc., being treated on board ship.

PROPOSED INTERNATIONAL MEDICAL CONGRESS.

There is to be held at Havre this autumn an international maritime exhibition, to which America and several of the Continental nations have already promised large contributions, and, although our countrymen are as yet somewhat backward, they have plenty of time before them. Certain enthusiastic gentlemen, not deterred by the unfortunate results of last year's ambitious attempt at Paris, are anxious to get up a conference on naval Medicine and allied subjects. As the questions for discussion are thus strictly limited, we may hope for something better than last year's conference. To secure a successful meeting, it will be necessary that men eminent in their callings should not this year stand aloof from the undertaking. Might we not suggest that the chair be taken by such a man as Fonssagrives, who has done so much for naval hygiene? Further, to entice any men of eminence from foreign countries, it will be necessary that some better prospect than that of the neglect they last year met with be held out to them. With these qualifications and a well-selected programme,

we cannot see why good should not come of the movement. It has been suggested that the propriety or benefit of quarantine regulations should be discussed; but even although such extensive subjects as the propagation of disease be left out of the programme, there is enough food left for discussion. One of the most prominent of these must of course be scurvy, and here the English system of victualling ships may come in for reprobation if we do not take care. It is a curious thing that scurvy should break out in the same ship again and again, wherever she may have happened to be provisioned; but the wonder ceases when we learn that some provision dealer has made himself a part owner of the vessel, and that wherever she is fitted out for sea he supplies the articles of food. Again, our legislative acts may not pass unquestioned; no doubt the prime cause of scurvy is bad and insufficient food (to which add damp berths and syphilitic constitutions, and you have the causation of the disease), and from experience we have learned that lime- or lemon-juice is the best substitute for a varied dietary; but what have we done? Enforced the use of the substitute, and left the real cause where it was before. If this Congress does its work, much good may be done in this respect. Another question well worth attention is the health of men in ironclads, especially in such low craft as were employed during the American war; there should be a sufficient quantity of material collected by this time to render the conclusions to be arrived at somewhat satisfactory. The best means of securing the health of men in tropical harbours, especially in tidal streams, and when on boating expeditions, might also be discussed with advantage. In this department our naval Medical officers could doubtless give much information. We trust that should a meeting be arranged, and a prospect of good treatment held out, our naval Surgeons will not be represented as their civilian brethren were last year, but that men whose words are law will speak on behalf of England. There can be no doubt of the fact that our naval supremacy rests on the stamina of our sailors, and if that be gradually undermined our power must go also.

FROM ABROAD.—PHTHISIS AND VARIOLA IN THE PARIS HOSPITALS.—TRAUMATIC LESIONS OF NERVES.

M. Besnier is in the habit of making a report every quarter to the Paris Hospital Medical Society on the Medical Constitution of that city, the information being supplied to him by the various officers attached to the civil Hospitals. The report for December, 1867, and January and February, 1868, has one or two points of interest to which we may advert. One of these is the inconvenience which seems to arise from the practice of the general Hospitals of admitting cases of phthisis into their wards, which, by reason of their prolonged duration, offer serious obstacles to the admission of urgent cases and induce overcrowding of the wards.

"The number of cases of phthisis is always very considerable in all the services, where they cause a true *encombrement* in spite of the enormous mortality (in January and February there occurred 506 deaths from phthisis out of a total mortality of 1891 from internal diseases) which destroys them. On this point M. Fereal remarks that the *hospital* is tending more and more to become a *hospice*, and that the number of beds at our disposal is very insufficient for the public necessities. In spite of all the efforts of the Administration, which has opened new supplementary wards and delays the evacuation of others which stand in need of repairs, this paucity of beds goes on increasing, and every day we have to refuse an asylum for patients whom our humanity forbids us to abandon. I have often at the last hour of admission at the Bureau Central, he adds, had seventy or eighty patients waiting, and not a bed to give them. I receive urgent demands, and I send I hardly know where those I cannot make up my mind to send away; but to my regret I have to put off many others the next day, or even from day to day, who have every right to public aid. The number of chronic diseases, among which cases of phthisis predominate, far outstrips that of acute cases; and if the Administration does not take measures for providing additional *hospices*, the *encombrement* will go on increasing, and that with consequences that any one may foretell."

Another remarkable point in the French Hospitals is the facility with which cases of variola are admitted in their general wards and allowed to become there centres of propagation, the revaccinations which are instituted as a protection by no means always proving such. In fact, the greatest number of cases of variola observed in these Hospitals during January and February, 1868, where it has proved epidemic, have been contracted in the Hospitals themselves by patients entering them for other diseases. Thus, at the Lourcine, seventeen cases of varioloid occurred within forty-six days subsequently to the entrance of a woman with severe variola, and in one of the services at St. Antoine fifteen cases of variola were met with, almost all contracted in the wards. One of these patients, who was convalescent from typhoid, succumbed to severe variola, although having "superb" vaccine cicatrices. One observation in relation to revaccination may be quoted:—

"M. Desprès called our attention to a patient who during the suppurative period of a successful revaccination from the heifer became the subject of confluent varioloid. It is a fact indeed well worthy of attention, as it results from it and from similar facts that I have carefully registered in my reports, that vaccinia during its own proper period of evolution does not seem to possess the power of influencing a concomitant variola, and still less of preserving the vaccinated subject. Hence we may deduce the corollary, that the revaccinations now practised in the Hospital cannot completely attain the end for which they are designed—*i.e.*, the preservation of the new admissions from the effects of contagion. It is of the greatest importance to obtain exact information on this matter, inasmuch as such large hopes have been based on revaccination, it being thought that a security was obtainable from it almost equal to that derived from the isolation of patients. What is the amount of immunity, in fact, furnished by revaccination? How long is it after revaccination before this immunity exists? What is the value of negative revaccination? These are questions to which we know not where the replies are to be found, and, we must add, to which no kind of attention seems to be paid. It is the general opinion, and that even among Physicians, that a revaccination practised under favourable conditions, and which leads to no result, indicates that the person so revaccinated without success is safe from an attack of variola. This is a complete error, and a deceitful cause of security, against which we have already protested. And now we find among M. Desprès' patients at the Lourcine a young woman, 18 years of age, who, having been in the Hospital for two months and a half and revaccinated without success, yet had confluent varioloid. Another patient offered a similar example."

M. Paulet recently read at the Paris Société de Chirurgie a highly interesting memoir on the Effects of Traumatic Lesions of Nerves, in which he arrived at some remarkable conclusions. Examining in detail the results derived from experimental physiology, as reported during the last half-century, he finds the general conclusion is that a divided nerve is capable of true regeneration, and that such regeneration is a *sine quâ non* of a restoration of the function lost by the division of the nerve. Next, the period of time requisite for this regeneration may occupy one or many months, according to the amount of loss of substance, or the degree of separation between the divided ends, while, when the loss of substance exceeds a certain limit, restoration will never be accomplished. But when he comes to examine recorded facts derived from clinical experience, he finds that they lead to very different conclusions to those deduced from experiment. The facts he has collected show that the re-establishment of function takes place long prior to the periods fixed by the physiologists, and that both sensibility and motion have been re-established, although the loss of substance in the trunk of the nerve has never been repaired. He divides his cases into two categories, those in which there has been simple neurotomy, and those in which this has also been accompanied by excision. Of the ten examples of the first which he has collected, he finds that in four the nervous influence was restored before the

possibility of the production of a cicatrix permeable to the nervous influence, while in three instances the continued separation of the extremities of the nerves was demonstrated by preparations. Among the eighteen cases of neurotomy with excision that he has collected, in some the functions were very soon re-established, while in others, in which this required a much longer time, so much of the nerve had been removed as to exclude all idea of its reproduction. In some cases excision of an important nerve in nowise disturbed sensation or voluntary motion. M. Paulet passes in review the various explanations that have been given of the return of nervous function, without finding any of them satisfactory, and he has instituted experiments on animals without obtaining any elucidation; nor does he believe that it is in this direction that the explanation will be found, clinical observation carefully conducted being really what is required.

PARLIAMENTARY. — THE CASE OF DR. ROGERS—FLOGGING IN THE ARMY—SEWER OUTFALLS AT DEPTFORD CREEK—BRITISH MUSEUM—LORD DEVON'S POOR RELIEF BILL—GOVERNMENT TELEGRAPHY.

On Thursday, March 26,

Sir J. Simeon asked the Secretary to the Poor-law Board what were the grounds on which the Board accepted the resignation of Dr. Rogers, the late Medical Officer of the Strand Union, and whether that resignation implied anything unfavourable to the character or to the Professional ability of Dr. Rogers.

Sir M. Beach said the circumstances of the case referred to by the hon. member were these:—In December the Board of Guardians of the Strand Union called upon their Medical officer, Dr. Rogers, to resign, and, the matter coming before the Poor-law Board, they asked for an explanation of the reasons for such a step being taken. The reply was that Dr. Rogers had for a long time past exhibited such a spirit of discourtesy to, and had endeavoured to cast such public odium upon, the Board of Guardians, that it was impossible they could work in harmony with him any longer. The Poor-law Board, on inquiring into the facts of the case, found that they fully justified the Board of Guardians in calling upon Dr. Rogers to resign. The Board of Guardians expressly disclaimed any intention to complain of the manner in which Dr. Rogers had discharged his Professional duties, and the Poor-law Board said that the result of their inquiries in no way lessened the sense which they entertained of the high character and Professional ability of Dr. Rogers.

In committee on the Mutiny Bill,

Mr. Otway moved an amendment in clause 22, prohibiting the infliction of corporal punishment in time of peace.

After a very brief discussion Mr. Otway carried his amendment on a division by 152 to 127.

On Friday Mr. Alderman Salomons asked the Secretary of State for the Home Department if he was aware of the intention of the Metropolitan Board of Works to open new sewer outfalls into Deptford-creek, in opposition to the remonstrances of the officer of health of the district, who considered the proposed works dangerous to the health of the neighbourhood; and if such an outfall is not a contravention of the spirit of the Main Drainage Act.

Mr. Hardy said that it was proposed to make the outfalls in question merely to carry off the storm waters in the case of exceptional floods. No decision would be arrived at upon the subject till next Saturday. In the event of the outfalls being made, they would occasion no inconvenience, and would not in any way contravene the terms of the Act.

Mr. Gregory drew attention to the confusion and chaos prevailing in the British Museum, from want of space for the proper arrangement of the collections. He dilated on the cumbrous and inconvenient system of administration, and suggested a reduction in the number of the trustees and an assimilation of the constitution of the board to the trustees of the National Gallery.

Mr. Beresford Hope suggested that the education portion of the Kensington schools should be dissociated from the art collections, and that these should be joined to the British Museum.

Mr. Disraeli, in replying, announced that a bill had been prepared which had been submitted to the trustees, and the main object of it was to separate the natural history from the other collections. This, he pointed out, was necessary to obtain the space adequate for the chronological arrangement of the art collections, the importance of which the Government had impressed upon the trustees. Replying to Mr. Gregory's remarks on the management of the Museum, Mr. Disraeli, though admitting that the constitution of the trustees was anomalous, denied that practically there was anything cumbrous or inconvenient in the system of administration.

On Monday, in the House of Lords, on the motion for going into committee on the Poor Relief Bill, Lord Devon explained the provisions of the Bill, and read its principal clauses at length, commenting on them as he read. That portion of the Bill which is of chief interest to the Medical Profession is contained in the clauses from clause 6 to clause 14 inclusive. In referring to this part of the Bill Lord Devon said their lordships could hardly be aware how much feeling had been aroused on the subject of various improvements connected with the management of workhouses. One of the points to which attention had particularly been drawn was the inadequacy or unfitness of the officers charged with the management of the poor. The absence of paid nurses had been particularly complained of. The effect of the 6th clause was to give the Poor-law Board power, when the guardians had been called on for 21 days to appoint the necessary officers and had failed to do so, to step in and appoint them and to fix their salaries. The next clause provided for the appointment of a paid visitor. At present the Poor-law Board were empowered to appoint a paid visitor under the 11th of Victoria, cap. 59, whenever the visiting committee, which must necessarily be appointed by every board of guardians, had failed, or inadequately performed its duties. But it was obvious that that provision might be evaded, and instances of such evasion had taken place. Meetings might be held nominally once a month by the visiting committees without in any way discharging their duties. The Poor-law Board should, therefore, have power to appoint a competent person to act as visitor in cases where the visiting committee had failed to do their duty, or had not been appointed. Under the next clause, the limited power which the Poor-law Board at present possessed with regard to buildings was extended to drainage, sewers, ventilation, furniture, fixtures, Medical and Surgical appliances, and other conveniences. First of all, by a provision in the original Poor-law Act, and subsequently by amendments under the 29th and 30th of Victoria, the Poor-law Board were empowered to spend upon buildings a sum not exceeding one-tenth of the average amount spent in the union during the three preceding years. But that power did not extend to the matters to which he had referred. Their lordships could hardly have watched the investigations which had taken place during the last eighteen months or two years without observing the great and increasing importance which was attached to these things. Their lordships were aware of the powers which Mr. Hardy's Act gave the Poor-law Board, in the event of the failure of the board of guardians to do so, to provide the necessary articles in the interests of the poor of the metropolis. That power it was now proposed to give with regard to the country in general. And on this subject he would take that opportunity of saying that the Poor-law Board could have no object but to see that the requisite conveniences for the recovery of the inmates were duly provided. Supposing Parliament were to entrust them with the powers they now asked for, it would be their wish and their duty to bear in mind the sources from which the necessary expenditure would come—namely, the rates—and to take care that the workhouses and infirmaries should hold out no inducement to unfit persons to enter them. There was no necessity for dwelling on clause 9. But clause 10 was one of a very important character. By that clause it was intended to extend the provisions of the Districts Schools Act, so as to make them applicable to the reception and relief of the insane and imbecile poor chargeable on the rates. Their lordships were aware that those persons only could be kept in workhouses who came under the head of harmless insane, and there was a very large and numerous class for whom inadequate provision was made at present. The object of this clause was, where unions had obviously no means of dealing with the imbecile or harmless insane, to enable them to combine into districts, such districts to be managed in the same way as the school districts were. If asylums for this purpose were here and there formed, it was the belief of the Poor-law Board that the expense of keeping the harmless insane would be greatly reduced. It was with a view to give the necessary powers that clause 10 and also clause 14 were introduced. Clause 14 gave power to the guardians, with the consent of

the Poor-law Board, to send harmless insane and idiots to a county asylum, supported by subscription, or from one workhouse to another, supposing the latter had accommodation adequate to their reception. That was a permissive clause.

Lord Kimberley thought the Bill was so peculiar and so technical in its details that, in his opinion, it had better be referred to a Select Committee. He expressed a doubt as to the propriety of clause 11 on the ground that it provided that the visitor, who was a Government inspector, should be paid by the ratepayers. He at the same time shortly advocated the introduction of Medical inspection.

After a few words from Lord Grey and Lord Airlie in reference to certain clauses and to changes which they should like to see introduced if the Bill was referred to a Select Committee, and after some brief observations from Lord Redesdale and Lord Stanley of Alderley,

Lord Ellenborough moved that the Bill should be referred to a Select Committee, and the Bill was referred accordingly, with the consent of Lord Devon.

On Wednesday, April 1, the Chancellor of the Exchequer brought in a Bill to enable the Postmaster-General to acquire and work the electric telegraphs of the United Kingdom.

THE GULSTONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS, PALL-MALL,

By Dr. JOHN HARLEY,

March 4, 6, and 11.

Lecture III.

ON THE PHYSIOLOGICAL ACTION AND THERAPEUTICAL USE OF HENBANE, ALONE AND IN COMBINATION WITH OPIUM, AND ON THE COMBINED OPERATION OF OPIUM AND BELLADONNA.

The lecturer commenced by describing the effects of increasing doses of sulphate of hyoscyamia when used subcutaneously. The following may be taken as a summary :—When given to an adult, and in doses insufficient to produce dryness of the mouth, the only effects are giddiness, somnolency, and dilatation of the pupils, and a progressive retardation of the pulse to that condition in which it exists after a prolonged period of complete rest of mind and body, without diminution in its force and volume.

In doses sufficient to produce complete dryness of the tongue and hard and soft palates, there will generally be an acceleration of the pulse ten or twenty beats, with a slight increase in its volume and power. This acceleration will be observed from ten to twenty minutes after the injection. It does not usually continue for longer than twenty or thirty minutes, and rarely lasts for an hour; dryness of the mouth comes on about twenty minutes after the injection, and continues about an hour.

In most cases there will be great somnolency, attended with so much giddiness that the patient is either unable to walk without assistance or reels about as if drunk; the face becomes slightly flushed, and the conjunctivæ injected; the pupils dilate. After the lapse of about an hour the mouth suddenly moistens, and the pulse, which, from the time of its maximum acceleration, had been observed to fall some five or six beats every twenty or thirty minutes, now falls with unusual rapidity, until, at the end of two hours from the injection, it numbers only sixty, fifty, or even forty-two beats, still, however, retaining its original volume and power; the giddiness and sleepiness slowly pass off, and at this time the pupils attain their maximum dilatation.

The effects are precisely the same when hyoscyamus, or its active principle, is given by the mouth. Compared with belladonna, hyoscyamus agrees with it in its effects upon the mouth and pupils. Its stimulant effect upon the sympathetic nervous system is only manifest in man in large doses, and even in this case it is comparatively transient and much less powerful than belladonna. The most prominent symptoms of the operation of hyoscyamus are excessive giddiness and somnolency, effects produced by atropia in only a very secondary degree. While atropia is chiefly distinguished by its effects upon the sympathetic nervous system, hyoscyamine is distinguished by its influence on the cerebrum.

It would appear that hyoscyamine in combination with opium produces the most powerful hypnotic action possible. Each increases the effect of the other. Quantities of morphia and hyoscyamine, which of themselves are insufficient to produce sleep, will, when combined, speedily induce that condition.

Like atropia, hyoscyamine is eliminated by the kidneys, and the lecturer stated that he had detected it in the urine twenty-two minutes after the subcutaneous injection of $\frac{1}{75}$th of a grain of sulphate of hyoscyamine.

Treating of its therapeutical use, the lecturer stated that he had found it serviceable in certain cases of epilepsy and enuresis, and extremely valuable in irritable conditions of the brain and heart, and that it is especially useful in often determining and invariably increasing the hypnotic action of opium.

In treating of the combined operation of belladonna and opium, the lecturer having previously determined the separate effects of atropia and morphia upon the horse, the dog, and man, gave the results of their operation when simultaneously administered, or when the one remedy was allowed to precede the other by a variable time.

From numerous experiments upon the horse, which were made by Mr. Frederick Mavor, of Park-street, and himself, he concluded that the reserve of any antagonism exists with respect to this animal; and he plainly proved by the experiments adduced, that the medicines not only intensify, but very much prolong, each other's effects.

The experiments upon the dog also led to the same positive conclusion. Some of them were peculiarly instructive. In one case, a quantity of atropine, which had been proved to be incapable of producing sound or continuous sleep, was given to the animal two hours after the administration of a subcutaneous dose of opium, and at a time when the dozy condition induced by the latter had passed off, the pulse being 78, respirations 18, pupils one-sixth contracting to one-seventh. Within five minutes of the injection of the atropine the animal was in a complete state of narcotism, and remained so without the slightest motion for the next four hours, and could not be aroused by pinching or pricking the skin, or by poking the finger down upon the glottis. The atropine effects, meantime, were extremely developed, and were much prolonged, and the dog continued to sleep soundly for three hours more.

In man, precisely the same results were observed in all the cases treated with opium and belladonna, either simultaneously administered, or when one was given some time previous to the other.

The lecturer could come to no other conclusion than that, as far as a hypnotic influence was concerned, belladonna decidedly increased the effects of the opium, and, on the other hand, opium invariably intensified not one or two, but *all* the effects of belladonna.

One important fact, however, resulted from the numerous experiments which he had made upon the dog and upon man. In a large proportion of patients he found that the subcutaneous use of morphia was followed by faintness, nausea, increasing to vomiting and violent retching, with weak and often intermittent action of the heart, these distressing symptoms lasting for many hours. When, however, a small quantity of atropine (the $\frac{1}{75}$th of a grain) was administered with the morphia, these alarming effects never followed.

He explained this fact by attributing to the atropia such a powerful stimulation of the sympathetic nervous system as was able to overcome that derangement of the vagus nerve which opium so frequently produces. In other patients, in whom opium alone fails to induce sleep, the combination of opium and belladonna, whether given by skin or by stomach, procured the desired result.

THE MICROSCOPE, THE SCALPEL, AND THE BALANCE.

Among the many prize essays lately sent in to the French *Société de Pharmacie* few are of greater interest than that of M. Dupuy on the action of arsenic. Besides treating of the influence of arsenic when given in the more generally adopted manner, the author publishes the results of his experiments on the arsenic bath. Some of his facts are curious, and show how difficult it is *à priori* to say what will be the effect of a drug administered in any but the ordinary fashion. For instance, M. Dupuy found that a bath containing as much as twenty grammes of arsenite of soda produced no perceptible effects on a man who was submitted to it.

In the *Comptes Rendus* M. Marey returns to his researches on the contraction of muscular fibre, and shows us how intimately the effects of the muscular wave are associated with

the elasticity of the muscular tissue. Having already proved that ordinary muscular contraction consists in a multitude of rapidly succeeding waves—muscular shocks—he now proceeds to prove that just as the elasticity of the arteries aids in converting the interrupted power of the heart into a continuous force, which propels the blood in a constant stream through the small vessels, so the elastic property of muscle converts the successive abrupt muscular shocks into the one continuous contraction which is known as ordinary muscular movement. M. Marey has constructed a special apparatus to demonstrate this view; but we cannot enter on further details.

The important discovery of M. Chauveau, described in one of our recent jottings "From Abroad," that vaccine matter is soluble in glycerine, the solution retaining all the active qualities of the virus, has produced no small sensation among foreign *savants*, and already two physiologists have come forward to dispute M. Chauveau's claim to priority. At the meeting of the Academy on February 24, M. Mialhe demanded that his communication, forwarded to one of the commissions as early as last April, should be read. He stated that in this contribution he had completely forestalled M. Chauveau's discovery.

M. Stanislas Martin claims to have discovered a new fact—viz., that the vapour of sulphuric ether is a perfect preservative of animal tissues. Specimens of meat which had been placed under the influence of ether vapour for some months were found in tolerably good condition as to structure; the fibres, however, were softened, and the meat had the consistence of a mushroom. This says little in favour of the process, which is, perhaps, better adapted to the conservation of mummies than as a means of keeping meat in a fresh condition.

It was found by Neumann as early as 1864 that there was a remarkable difference between the action of the constant current and that of the induction interrupted current on the muscles of paralytics, and recently the fact has had a practical application in the diagnosis of certain forms of paralysis. This peculiar difference has been explained in a paper read by Herr Brücke before the Academy of Sciences of Vienna. In this the author, following up Neumann's inquiries, shows that the difference in action of the two currents depends, in great measure, if not exclusively, on the fact that in cases of paralysis the current must be allowed to traverse the muscle for a considerable time. In proof of this he urges the fact that even a powerful constant battery current will not produce contraction if the current is rapidly "made and broken."

In presenting his fine memoir on anatomical elements and epithelium to the Académie des Sciences recently, M. Robin made some suggestive observations on the subject of the genesis of tissues. As we have not yet read the paper in question, we shall not express a positive opinion upon it; but it seems to us that the conclusions it embodies point with some force to the probability of the theory of pangenesis which Mr. Darwin has just started.

M. Prévost's essay on the "conjugate" deviation of the eyes and rotation of the head in certain forms of hemiplegia has just been published, and is a work full of interest to the student of nervous affections. It has been sent in for the prize under the Montyon foundation. We are not aware whether it is yet issued for sale, the copy we saw having been shown us by the author; but, doubtless, the work may be easily obtained from the foreign booksellers.

Herr Brücke has been holding forth at the Viennese Academy of Sciences on the action of curara on the muscles of batrachians. His experiments have been carried out with a view to ascertain the effects of the electric current on muscles poisoned by curara. Curara, he says, renders the muscles relatively insensible to currents of short duration, but it seems to influence the effect of persistent currents to a very slight extent. The laws controlling the electric excitation of muscles deprived of the influence of their nerves by curara are, says Herr Brücke, quite distinct from those which govern the electric excitation of muscles through the medium of the nerves. He agrees with Herr Ziemssen in stating that, although in facial paralysis the muscles do not respond to the stimulus of the induction current, they are nevertheless called into action by a current of greater duration, such as that proceeding from a "chain."

M. Dubrunfaut has laid before the French Academy an excellent memoir on the allied subjects of "Diffusion and Endosmose." He enters into many important details of the highest interest to the student of natural philosophy, and he expresses opinions somewhat adverse to the views of Professor Graham, which are generally accepted in this country.

REVIEWS.

NAQUET'S PRINCIPLES OF CHEMISTRY.

Principles of Chemistry founded on Modern Theories. By Mons. A. Naquet, Professeur Agrégé à la Faculté de Médecine. Translated from the second edition by William Cortis, Student, Guy's Hospital. Revised by Thomas Stevenson, M.D., Lecturer on Experimental Philosophy at Guy's Hospital. London: Renshaw. 1868. 8vo. Pp. xxviii. and 848.

Principes de Chimie fondée sur les Théories Modernes. Par A. Naquet. Two vols. 12mo. 1867. Pp. 443 and 629. Paris: F. Savy. London: Williams and Norgate.

Equivalents, Atomes, Molécules. Thèse présentée et soutenue par Edouard Grimaux, Docteur en Médecine. 1866. 8vo. Pp. 109. Paris: Savy. London: Williams and Norgate.

(*Concluded from page 352.*)

We shall conclude our remarks on the first part with a notice of our author's views regarding the "Classification of Bodies." "The only natural classification," he observes, "would consist in making several families of all the simple bodies, each of which families should contain those bodies which have the same atomicity. Then the bodies should be arranged in each family on the principle of the electric series" (p. 74). Thus the first family would contain monatomic bodies or monads, the second diatomic bodies or dyads, etc. Why our author should not have adopted this philosophical mode of classification which is used by Frankland and other English chemists, we cannot tell. He simply confines himself to that classification which divides bodies into metalloids and metals, atomicity being the basis of any further subdivision.

"The following table shows the differences which distinguish metalloids from metals:—

Metalloids.	*Metals.*
1. Several metalloids are gaseous.	1. There is no gaseous metal.
2. Metalloids have not metallic lustre.	2. Metals possess metallic lustre.
3. They are bad conductors of heat and electricity.	3. They are good conductors of heat and electricity.
4. They have a relatively low density.	4. They have a relatively high density.
5. Their oxides, on combining with water, ordinarily produce acids, seldom bases.	5. Their oxides, on combining with water, produce bases, seldom acids.
6. They are always electronegative in the compounds which they form on uniting with metals.	6. They are always electropositive in the compounds which they form on uniting with metalloids."—P. 75.

There are, we think, strong grounds for objecting to this basis of classification; but before noticing them we will give M. Naquet's list of metalloids, which are arranged in five groups. The first group contains the monads—chlorine, bromine, iodine, fluorine, and hydrogen; the second contains the dyads—oxygen, sulphur, selenium, and tellurium; the third contains the triad—boron; the fourth contains the tetrads—silicon, zirconium, titanium, tin, and thorium; while the fifth contains the pentads—nitrogen, phosphorus, arsenic, antimony, bismuth, uranium, tantalium, and niobium. Amongst the grounds of our objection to M. Naquet's table of distinctions we may mention—(1) That if the gaseous state be characteristic, mercury has a better claim than carbon (which by accident is omitted in the above list, both in the original text and the translation, and should have succeeded silicon in the tetrads) to be regarded as a metalloid. (2) That some of his metalloids—as, for example, antimony, arsenic, tellurium, and tin—have a very decided metallic lustre. (3) That under certain circumstances two of the most important metalloids—carbon and silicon—act as conductors of electricity; and (4) That at least six metals have a density not exceeding 1·75 (in three of these it being less than 1), while the densities of arsenic, tellurium, antimony, and bismuth are 6, 6·2, 6·7, and 9·8 respectively. Surely, under these circumstances, it would be advisable to reject the term metalloid altogether, and, indeed, to cease any longer to attempt to classify the elements into two distinct and almost antagonistic groups. A simple classification, founded mainly on the atomicity of the

elements, would answer all practical purposes, and get rid of the difficulty which the great majority of chemists must feel in denying to antimony, arsenic, bismuth, tin,(a) etc., their old-established claims to be regarded as metals. On this subject the reader may consult with advantage the article "Classification" in "Watts's Dictionary of Chemistry."

We shall not detain our readers with any details regarding the second part further than to remark that M. Naquet classifies the metals according to their atomicity, and takes to himself the credit of being the first to suggest such a classification. If he had been acquainted with Dr. Odling's article on the "Atomic Weights and Classification of the Metals," published in March, 1865, he would scarcely have advanced this claim.

The third part of this volume, treating of organic chemistry, is, in our opinion, by far the most valuable. Adopting Kekulé's view, our author defines organic chemistry as "simply that part of the science which relates to the series of carbon compounds." Hence, he adds, the most logical course would have been to study this series after carbon, in the same manner and the same way that the combinations formed by the other elements have been studied after each of them. His reasons for rejecting this course are given in the following sentence:—"Carbon enters into so great a number of compounds that the study of these demands at least as much space as that for the compounds formed by all the other elements united; and, further, the combinations into which carbon enters are often highly complicated. We there meet radicles which act sometimes as metals, sometimes as metalloids. In short, it is almost impossible to understand the series of carbon compounds if all the other simple bodies, and the compounds which they form, have not been previously studied" (p. 341). If we refer to the mode in which organic chemistry was treated twenty years ago or less, we find it divided into the various heads of acids, bases, fats, alcohol, ether, etc., with little or no attempt at general systematisation. If we knew the ultimate composition of an organic body, and consequently its empirical formula, we were content, without seeking for its reactions to determine its true composition or rational formula. Recently, however, we have been able to arrange the great majority of organic bodies in series, each term of which differs from the preceding term by a certain number of atoms of carbon and hydrogen. The following is an abstract of our author's views on this subject:—Bodies which have the same chemical functions, and which thus form a series in which each term contains CH_2 more than the preceding term, are called an *homologous* series. The series would run thus—CH_4, C_2H_6, C_3H_8, etc., the general term from which all the others may be deduced by assigning proper values to n being C_nH_{2n+2}. These bodies are saturated, or, in other words, contain the largest possible quantity of hydrogen. Now, every saturated compound may successively lose 1, 2, 3, etc., molecules of the elements it contains, and thus give rise to non-saturated products. Each of the substances in the preceding series may thus lose two atoms of hydrogen, producing a new less hydrogenised series—CH_2, C_2H_4, C_3H_6, etc., the general term being C_nH_{2n}. Here, then, we have a second homologous series. "Other series of the same kind may be similarly formed, the aggregate of which forms one vast series, which comprises them all. This series of a new order, each term of which is an entire homologous series, has received the name isologous series. It is founded on the characteristic that each of the series it contains has a general expression which differs from that of the preceding homologous series by H_2 less, and from the following by H_2 more; so that from these general expressions we have C_nH_{2n+2}, C_nH_{2n}, C_nH_{2n-2}, etc. Each term of an homologous series has the same relation towards the corresponding term of the other homologous series as is shown between the general expressions of these series—that is to say, they differ between themselves by one or more times H_2 more or less. Bodies presenting these relations are called isologous" (p. 369). Accurate, no doubt, as the above paragraph is, we doubt whether the student will have so clear an idea of homologous series as he would have obtained from reading Miller's remarks on the same subject in the last edition of his "Organic Chemistry." "Around each radicle," adds our author, "there ranges a *group*, of which it is the pivot. The different groups united round the same fundamental hydrocarbide constitute a *heterologous* series. The different heterologous series derived from isomeric fundamental hydrocarbides form an *eikologous* series. The different eikologous series, all the terms of which are homologous amongst themselves, form an *homologous* series. Finally, the whole of the homologous series form the great isologous series, which comprises all bodies in organic chemistry. All the bodies whose serial classification may be imagined are far from being known. Only three homologous series have been much studied—that in which the hydrocarbides have the general formula C_nH_{2n+2}, that in which they have the formula C_nH_{2n}, and that in which their formula is C_nH_{2n-6}. In all the other series only a few terms here and there are known" (p. 374). In illustration of this sentence, we may remark that sixteen hydrocarbides having the general form C_nH_{2n+2} are known, of which marsh gas, CH_4, and hydride of amyl, C_5H_{12}, are the most important; that thirteen bodies represented by C_nH_{2n} are known, of which olefiant gas or ethylene, C_2H_4, and amylene, C_5H_{10}, are the most important; and that six or seven bodies with the formula C_nH_{2n-6} are known, of which the most important are benzine, C_6H_6, and toluine, C_7H_8.

M. Naquet concludes his general remarks on organic series in the following words:—"The elements being classed in series according to their atomicity on one side, and according to their electric polarity on the other, the whole of chemistry will constitute an immense series. Finally, in all these series, the physical and chemical properties being modified according to laws which may be discovered, we can foresee a state of chemistry in which, without studying the properties of different bodies in detail, and knowing only the number, atomicity, and electric polarity of the elements, it will be possible to determine by simple calculation the formulæ, properties, and mode of generation of all compounds possible" (p. 374).

With the above quotation, in which we have the clue to the arrangement of the concluding part of M. Naquet's work, we close our notice of this important contribution to chemical science. At the commencement of our article we stated that if it had not been for the preface we should have been at a loss to know for what class of readers the work was specially intended. It is utterly unfitted for the ordinary Medical student. In the first thirty pages a knowledge of propionic and stearic acids and glycerine is assumed. It is more than a quarter of a century since the late Professor George Wilson described "the London students as notoriously the most unscientific students on the face of the earth; on such things as chemistry they only ask what will pass the Halls."(b) That this statement is still comparatively true, in so far as the neglect of the higher departments of chemistry is concerned, the writer of this article can, from long experience as an examiner for degrees, fully confirm. We make this observation in no spirit of reproach. The time allotted for Medical study is so short, as compared with the number of subjects to be mastered, that the student naturally devotes his chief attention to those of most practical value. What percentage of our students, at the completion of their curriculum, could attach any rational meaning to M. Naquet's definition of alcohols? "Alcohols are bodies which are derived from a fundamental hydrocarbide by the substitution of hydroxyl for hydrogen.

$$\left(C_2\begin{cases}H_1\\H_2\end{cases}\right) \qquad \left(C_2\begin{cases}OH\\H_2\\H_3\end{cases}\right)''$$

Hydride of ethyl. Alcohol.

—P. 407.

The class of students to whom we think that this volume will prove a boon are such as are preparing for honours in chemistry, or for the B.Sc. degree, or who are proposing to take up chemistry as a profession; and to them we can most cordially recommend it. But have they never learnt sufficient French to master the work in the original, in which it is less than half the price and far more commodious?

(a) Indeed, M. Naquet, apparently forgetting himself, places tin amongst the metals when treating (at p. 264) of the malleability and ductility of this class of bodies.

Tests for the Use of Alcohol in Disease.—At a meeting of the Metropolitan Counties Branch of the British Medical Association on March 20, Dr. Anstie brought forward the above subject, with a view to the establishing some kind of scientific test by means of the thermometer, sphygmograph, and other instruments of precision, to show the propriety of giving alcohol in disease. The general impression of the members present was that at present the general indications, such as compressibility of pulse and defect of nervous power, were sufficient for practical purposes, yet that it was desirable to reduce these vague quantities to number, measure, and weight by the use of appropriate instruments.

(b) "Memoir of George Wilson," p. 244.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

The Conflict between the Ultra-Ecclesiastical Party and the Faculty of Medicine.

PARIS, April 1.

THE storm which had long been brewing has burst at last upon the heads of our Medical Faculty. Two petitions, covered with numerous signatures, among which, we regret to say, are those of a few Medical men, have been presented to the Senate, charging the Professors with atheism and materialism, and claiming, in consequence, the right of setting up a rival establishment—for such is the real import of the words, "la liberté de l'enseignement supérieur."

The liberty which, in the present instance, the Catholic party professes to claim already exists in practice, as far as scientific teaching is concerned. Any duly qualified individual, who wishes to open a regular course of lectures on any given subject, has only to apply to the Minister of Public Instruction for a permission, which (except on political grounds) is never refused, and, this permission once obtained, he can freely bring his opinions before the public. Hundreds of private teachers avail themselves of this advantage; and the only privilege enjoyed by the Faculty of Medicine, in common with the other Faculties of the empire, consists in sitting in examination upon candidates for the purpose of conferring degrees. Of this privilege it is now proposed to strip the official establishment, so that in future any corporation provided with sufficient funds might set up a college empowered to grant diplomas and create doctors in every branch of human learning.

The so-called monopoly of the University of France has always been vehemently assailed by the clerical party in the name of religious freedom. But the word "liberty" has a very peculiar sense in the vocabulary of our Catholic prelates. To oppress the conscience of others, or, when this cannot be done, to set themselves above all the obligations which the law imposes upon ordinary citizens, has constantly been their aim. In fact, when we consider that the doctrines of the Papal syllabus form the acknowledged code of the French Ultramontane party, it seems passing strange to hear them complain of *oppression*.

"Quis tulerit Gracchos de seditione querentes?"

When we consider that forty thousand priests are daily engaged in disseminating the principles of the Catholic religion, while archbishops and bishops proclaim them in their *mandements*, and cardinals defend them in the Senate, it really seems as if the orthodox faith had little to fear from the casual utterances of a few scientific men. As well might the French empire, bristling with fortresses and protected by fourteen hundred thousand bayonets, express its fears of an invasion from the neighbouring Republic of Geneva, which disposes of an armed force of about fourteen hundred men.

But the friends of liberty, who unfortunately are too apt to be led away by anything which sounds like freedom, are not unfrequently heard to say that education ought to be free; that education *is* free in Belgium, in the United States, and in other highly civilised countries; and that the results of a system which rests upon liberty cannot fail to be beneficial in the long run. With this proposition we fully agree as far as teaching itself is concerned, but the case is widely different when the amount of learning imparted has to be officially ascertained. If a regularly appointed body of scientific men is not to judge this point, to the exclusion of all other parties, where shall we stop? And how is the present level of Professional knowledge to be maintained if self-constituted examiners are entitled to lower it to the standard which may happen to suit their convenience?

Let us for a moment examine the results of the *free* system as regards Medicine. When a Catholic college has been set up by the side of our Faculty, all candidates who have met with some *misfortune* in their examinations will undoubtedly turn their backs upon the old institution and apply to the new one, which will evidently have every temptation to be indulgent; and thus will the full privileges of a Medical Practitioner, involving in a certain measure the right of life and death, be conferred in many an instance upon the most unworthy subjects. Can it for a moment be denied that this unfair competition would rapidly destroy the value of all scientific degrees?

Nor is this all. By the side of the Catholic College there would soon arise, in virtue of the self-same principle, a Homœopathic College, a Mesmeric College, and a Female College of Medicine, and Doctors in abundance would proceed from all these establishments. If anything is calculated to bring contempt upon the whole Profession, it is surely a system like this. We enjoy at present the confidence and esteem of the public at large because our degrees are only to be obtained after a long and severe course of study, at the end of which our knowledge has been duly tested by competent judges. But let the barriers which have hitherto protected us be once overthrown, and a whole army of quacks will rush into the ranks.

The opinion of the Senate, as expressed by its reporter, M. Chaix d'Estange, was decidedly unfavourable to the doctrine of the petitioners. But, the prelates of the assembly having expressed the intention of entering into the debate, we may soon expect to witness a warm discussion upon this interesting subject.

In the meantime, the professors marked out for reprobation by the clerical party were yesterday received with loud applause by a densely crowded amphitheatre. The students eagerly seized so prominent an occasion to evince their sympathy for their eminent teachers. Whatever may be the fate of our time-honoured institutions, we feel confident that the cause of science will never be abandoned by the young men of France. You frequently regret that the English is not equal to our French system; but you may thank heaven that you have no Ultramontane party to interfere with your educational schemes.

LIVERPOOL.

MARCH 21.

THE annual report of the Medical Officer of Health for this borough, which has just been issued, while it contains the encouraging announcement of a fall in the death rate of three per thousand as compared with the averages for the previous ten years, yet abounds in so many startling details concerning the social condition of the lower classes as to show that the great work of sanitary reform, on which the municipal authorities have for some years past been earnestly labouring, is but in its infancy. In a town whose population grows so rapidly as that of Liverpool, it is hardly possible to keep pace with the demands of its many thousand lungs for a nightly as well as a daily supply of pure air, so that it is not surprising that, spite of stringent local acts to the contrary, overcrowding should still be prevalent; and the mere fact of some 11 per cent. of the registered lodging-house keepers having been fined during the year for infringing these acts can scarcely excite wonder. But when the degree to which this overcrowding is carried comes to be considered, and also the kind of persons who are promiscuously huddled together, the matter is found to assume a very grave aspect indeed. It is startling enough, for instance, to be told that six adult human beings could sleep night after night in one room of a cubical space of not over 800 feet—a fact in social economics which probably even Rome in the days of Augustus could hardly have matched. Yet, with our knowledge of the power which the organism possesses of accommodating itself to strange conditions, we can conceive of these poor creatures having passed the time without any special feeling of discomfort, the gradual depression of all their functions keeping pace with the depression of the atmosphere, and rendering the demand for pure air less urgent as the supply became more and more diminished. But more startling still is it that these six were made up of such as the following:—A mother and her two adult sons, and a husband and wife with their adult daughter; or, as in another case, of two adult brothers and four adult sisters, huddled together in one bed on the floor. Happily such cases as these are extreme; but others, differing from them only in the degree to which the overcrowding is carried, and characterised by the similar indiscriminate mingling of the sexes, are to be reckoned not by the score only, but by the hundred. Dr. Trench calls special attention to this state of things, particularly as it affects the character and position of the girls of the labouring class, and justly considers it to be a question "worthy the consideration of the legislator, the moralist, and the teacher." Though so much remains to be done, a great deal has been effected, as

shown by the saving of some 1200 lives this year alone, and the elevation of Liverpool to a higher grade in the scale of salubrity than that occupied by several of the large towns possessed of superior natural advantages. The whole report abounds, as all its predecessors have done, with valuable information and suggestions.

A second Medical Society, with the title of the "Northern Medical Society," has recently been inaugurated here for the benefit of those members of the Profession who live remote from the building in which the older body holds its meetings, and who are further prevented from attending those meetings in consequence of the inconveniently early hour at which they are commenced—viz., 7 o'clock. It numbers at present some forty members. Liverpool, with its extended area and four or five hundred thousand inhabitants, should be competent to support several such institutions. The two Societies meet on every alternate Thursday evening during the winter, but not on the same Thursday.

The new Infirmary for Children, of which the foundation-stone was laid in June, 1866, by the Duke of Edinburgh, is being rapidly proceeded with, and in view of its early completion the Committee have just advertised their intention of appointing a third full honorary Medical officer, and in doing so have manifested a praiseworthy desire to discountenance the degrading system of canvassing. Each candidate is required, by the printed form on which he makes application, to pledge himself not "to advertise, issue circulars, canvass, or in any other way solicit votes, either personally or by the agency of others." Another novel feature is that each applicant binds himself to bear his proportion of the necessary expenses which the Committee may incur in making the election.

GENERAL CORRESPONDENCE.

THE COUNCIL OF THE COLLEGE OF SURGEONS

LETTER FROM MR. ERASMUS WILSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your able advocacy of the cause of the Fellows by examination demands that I should address you on the eve of another Council election in the College of Surgeons. There can be no question that the Fellows in general are a body of able men, every man fully competent to the discharge of the duties of government of the College, and there can be no doubt that the Fellows by examination are entitled to the highest credit and consideration for acquiring by their own mental strength the honours which, in the case of the Fellows by election, were bestowed partly as a matter of age, and partly as one of favour.

As a question of merit, and in reference to qualification for the Councilship of the College, it would be difficult, in my opinion, to make any distinction whatever between the Fellows by election and the Fellows by examination; in fact, it would be most undesirable to attempt any such distinction. All are Fellows alike, and all should possess the same rights and privileges. Indeed, that this is a matter which has never admitted of dispute is shown by the general recognition of the propriety of the candidature of Fellows by examination, and I only touch upon the question at present to deprecate any distinction whatever upon this head. The whole elective body must be regarded as equal.

But there are certain circumstances which ought, in my opinion, to influence the selection of candidates; these circumstances being twofold—namely, seniority and productive labour. Seniority alone should confer no claim, because the law of custom prescribes that the Surgeon, besides ripening in age and general usefulness, should contribute to the common store of Medical knowledge, and if the candidate have no other claim than the one of maturity, we may very reasonably prefer the candidate who, although inferior in point of seniority, is superior in that of productive labour devoted to the advancement and progress of Medical science.

If, with these considerations before us, we take the names of Fellows whom we hear spoken of from time to time, we are bound to admit that there are many such productive workers—men who do honour to their Profession, and would do equal honour to any other place in society which they might chance to occupy—men deserving of the deepest respect both from their Professional brethren and from the general public. And the question before us is, What shall we do with such men? In respecting them we respect science—we respect ourselves—and we must feel it to be due to ourselves, as well as to them, that we should not sully the honour of the Profession by dealing with them invidiously or irreverently. We have, in fact, sacred authority for doing unto them as we would be done unto ourselves.

It may be difficult to decide who, among a number, have done most for the advancement of knowledge, and much in this respect must be left to general reputation and credit. But the law of society prescribes that the foremost in age should receive the respect of an educated community, and, other considerations being equal, the senior should be permitted the precedence which is as much honoured in the giver as in the receiver. The Fellows by election have for the most part the advantage of seniority of age over the Fellows by examination, and amongst the latter the rights of seniority will be respected among themselves in proportion to their own respect for the rights of those who have preceded them.

It is to be regretted that the honours of our Profession are so very few in number—so few, in fact, that their assumption by the few becomes almost an injury to the greater number, who are thereby excluded. But if they be few, the reason is the stronger why we should cherish them jealously, and contribute to them all the distinction which can arise from our honourable appreciation of them, and our worthily seeking to possess them. The fewness of the honours may in some degree be obviated by suppressing the plurality of office which has heretofore existed in our College, and requiring that for the future the offices of councillor and examiner should be held independently by separate men.

Some few other points appear to me to be desirable. These points would be easy of attainment, and would contribute in a very great degree to increase the interest of the Fellows in the College itself, besides serving as a stronger bond of unity between its members. They are, in the first place, the right of voting by proxy to provincial Fellows; secondly, the circulation among the Fellows of reports of the proceedings of the Council; and thirdly, meetings at stated periods between the Council and the Fellows, to confer on matters of interest to the common good.

Pardon me, Sir, for trespassing so lengthily on your patience, and permit me to subscribe myself,

Yours, &c. ERASMUS WILSON.

17, Henrietta-street, Cavendish-square, March 20.

GOVERNMENT AND VOLUNTARY PATIENTS IN LOCK HOSPITALS.

LETTER FROM MR. J. R. LANE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your last number "a correspondent" has done me the honour to criticise some observations made by me in a paper published in the *British Medical Journal* for February 15, in which I contrasted the nature of the ailments and the length of time necessary for the cure respectively of the women who are sent to the Lock Hospital under the Contagious Diseases Act, and of those who present themselves voluntarily in the ordinary way. The object of my paper was to show that, under a system of compulsory inspection, a large number of women are placed under treatment whose complaints, though highly contagious, cause them so little personal inconvenience that they feel but slight inducement to apply spontaneously for relief, and that such cases are, in fact, rarely admitted into the ordinary wards under the voluntary system. I attempted to show that the operation of the Contagious Diseases Act is not only advantageous to the community by secluding such patients, and preventing them from doing mischief while their treatment is going on, but is also of the greatest service to the women themselves; and that the early treatment which it necessitates has a most beneficial influence on the character and duration of their disease.

In evidence of this, I stated the fact that the average time occupied by the treatment of the Government patients was only thirty-one days, whereas the treatment of the ordinary patients required as much as fifty days; and I appended some tables, which your correspondent has transcribed, showing that the proportion of gonorrhœa and syphilis was much greater in the Government than in the other patients, and also that the number admitted with recent primary disease, as compared with secondary and tertiary affections, was much greater in the former than in the latter. The main cause of these differences clearly is that the slighter forms of disease are

placed under treatment in the one class, while in the other they escape treatment altogether.

Your correspondent demurs to my conclusions, and thinks I have overlooked or omitted a fact which, if taken into account, would upset my train of argument altogether. To use his own words—"The missing fact which we propose to supply is, as we are informed, that the Medical inspectors under the Contagious Diseases Act are directed only to send such women to Hospital as may be labouring under syphilis in its more directly communicable form, and hence the preponderance among the Government patients of gonorrhœa, recent primary sores, and chronic ulcerations, and the smaller proportion of secondary and tertiary disease, as such cases, unless attended with uterine or vaginal discharges, are not, in the present state of our knowledge, considered to be so directly communicable as those in which such discharges exist."

Now, if this were true, it would certainly account in some measure for one of the facts mentioned by me—viz., the smaller proportion of secondary and tertiary disease in the Government patients—but how it would affect the various other facts, or invalidate the general conclusion, it is not easy to perceive. But it happens to be altogether untrue as regards four-fifths of the Government patients sent to the Lock Hospital, and only partially true of the remaining fifth. Dr. Stuart, the Medical Inspector for Woolwich and Chatham, who has at his disposal 80 out of the 100 beds, informs me that "he is under no restriction as to the class of disease to be sent to the Hospital, and if lately there have not been many purely secondary or tertiary cases sent, it has been because not many have presented themselves to his notice." At Aldershot, for which station the remaining twenty beds are reserved, a restrictive order has been given, having been found necessary in consequence of the fearful amount of disease prevailing among the women when first placed under the operation of the Act. But the results obtained at Aldershot strongly corroborate my figures and conclusions. I am informed on the best authority that "as soon as the Aldershot Hospital for fifty beds was opened, and was supplemented by twenty beds in London, a great change began almost immediately to manifest itself, and, although less than nine months have elapsed, the condition of the women has been so much improved that, as a rule, vaginal discharges, chiefly uterine, and unaccompanied by vaginitis, are almost the only diseased conditions met with. Cases of primary ulceration, and those also of a secondary character, are occasionally observed; but in regard to the first named, they are generally found in the newcomers, whilst the latter are few and far between, and much more amenable to treatment than previously. Indeed, the results speak so well for the working of the Act at Aldershot that, though new arrivals of men and women will constantly render disease frequent, yet the troops that leave the garrison do so with an almost clean bill of health, although, when they entered it, their condition in this respect was just the reverse." The diminution of venereal disease at Aldershot has been so marked that for some time past the Medical Inspector has experienced much difficulty in filling the beds at his disposal, and the majority of the Aldershot beds in the London Lock Hospital are at this moment vacant.

With respect to Woolwich, Dr. Stuart says:—"No one but those who have opportunities by personal inspection of judging would believe the difference the working of the Contagious Diseases Act in the last eighteen months has produced in the condition of these women—regular and habitual prostitutes—both as to their personal health and condition, and, I believe I might add, moral feeling, if such a term could be applied to them."

I am glad to find that your correspondent, though so ready to criticise my remarks, is, like myself, an advocate for the extension of the Contagious Diseases Act to the civil population, and regret, therefore, to be obliged to point out that the "missing fact" which he has introduced to your readers with such a flourish of logic, is only moonshine after all. His maxim, that "unless the facts be correct their labour is but lost that reason," is one in which I entirely concur, and I venture to commend it to his own careful consideration. I am, however, indebted to him for the opportunity of directing further attention to this subject—in which I am warmly interested—in your columns, as well as in those of the *British Medical Journal*, and I trust I have made it clear that, in the remarks I made on the advantages to be obtained by a systematic inspection of prostitutes, I have rather understated than overstated the case. I am, &c. JAMES R. LANE.

2, Berkeley-street, Piccadilly, March 31.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY.

FRIDAY, MARCH 13.

Sir THOMAS WATSON, Bart., President, in the Chair.

THE following gentlemen were elected members of the Society:—Dr. De Mussy, Mr. W. W. Wagstaff, and Dr. Watkins.

The PRESIDENT observed that, whilst he could congratulate the Society on its prosperity, and on the increasing numbers of its members, he must remind them that its primary and special object was the force and action of medicines—in a word, how to cure disease. No doubt they contemplated also the consideration of doubtful and of new cases of disease; for such must be known and well examined before treatment could be dealt with. The two objects of inquiry were correlative, and the Society was at once clinical and therapeutical, but mainly the latter; indeed, he would himself have preferred that the Society should have been called the Therapeutic Society. There was a danger of its drifting insensibly into a sort of junior Medico-Chirurgical Society. Any attempt to rival that older Society would be ungenerous, and as unsuccessful as it was superfluous and unnecessary. The Society would be nothing if it were not therapeutical, and, strongly impressed with this, the Council had suggested the appointment of committees, and had nominated some subjects of inquiry. Those subjects were few in number, but the Council wished—and he thought wisely—that subjects of inquiry should be suggested by individual members of the Society, and such suggestions he should be happy to receive.

The SECRETARY stated that the President had been requested to appoint committees for the investigation of the following subjects:—1. The value of various methods of employing carbolic acid in the treatment of wounds. 2. The value of the methods of acupressure and of torsion as means of arresting hæmorrhage. 3. The value of quinine as a means of diminishing bodily temperature and pulse in pyrexia. 4. The value of bromide of potassium in the treatment of epilepsy.

Mr. HOLTHOUSE showed a case of

CHRONIC RHEUMATIC ARTHRITIS

in a male aged 19. In his remarks he dwelt chiefly on the unusual circumstance of the disease occurring in one so young, on the great amount of shortening in a short period of time, combined with the chronic and subacute character of the symptoms. Adverting to Dr. Robert Adams's observation that the apparent shortening was much greater than the real, owing to the elevation of the pelvis of the diseased side, he stated that Dr. Adams did not seem to be aware that both these distortions were only secondary results of the limb being abducted and fixed; just as the depression of the pelvis on the diseased side and the apparent elongation of the limb in ordinary hip disease are secondary results of the thigh being fixed in a state of abduction, or as an anterior pelvic depression with lumbar incurvation are secondary results of a thigh fixed in a position of flexion. The abduction, with apparent lengthening, is explicable on purely physical principles, and marks the nature of the disease and the condition of the joint rather than the stage, as usually taught. The condition is one of distension of the joint cavity, either with increased and modified synovial fluid, as in ordinary synovitis, or with pus, as in suppurative inflammation of the joint.

Mr. BRYANT and Mr. THOMAS SMITH commented on the name given to this disease, and the latter suggested that the case more closely resembled one of ordinary caries.

Dr. JULIUS POLLOCK thought that the treatment was a question of much interest.

Mr. HOLTHOUSE referred to the use of tonics; but with the doubt as to the nature of the disease, he thought that colchicum might have been advantageously employed.

Mr. MAUNDER pointed out that, in the case before the Society, the hollow behind the trochanter remained, and that the soft parts around appeared quite free from disease. On these grounds he inclined to agree with Mr. Holthouse as to the nature of the malady.

Mr. HOLTHOUSE repeated that there were no signs of ordinary hip disease, no acute symptoms, and absence of pains and of suppuration. He placed great reliance on the treat-

ment by rest, and in the present instance he thought some good had resulted from the application of a weight to the limb.

A committee was appointed to report upon this case.

Mr. Thomas Smith showed a female, 4½ years of age, suffering from

ECTOPIA VESICÆ.

The vagina could be traced, and the uterus could be felt, through the rectum. The labia were fatty, but the nymphæ only slightly developed, the pubes cleft, and the abdomen deficient in the middle line from the umbilicus downwards. He observed that in this case the bladder was covered with a structure resembling skin as low as the level of the ureters, and that this surface did not cause trouble from its irritability. He had found the same condition in another case of this defect in a female child, but had never observed it in the male. He did not think that Surgery could do much for this patient, especially as the freedom from local irritability rendered it unnecessary to attempt to cover the front of the bladder with integument.

Mr. Bryant remarked that in these cases it was unusual to find evidence of the vagina and uterus. In three cases which he had met with, those parts were not present. He thought that in the lapse of years the bladder inclined to retract within the pelvis, so that the exposed surface was greatly reduced in size, becoming, in fact, a mere fissure; and that the mucous membrane tended to become very like ordinary integument.

Mr. Hulke, referring to the operation for covering the exposed bladder with skin, mentioned a case in which a good deal of disturbance resulted from the procedure, with sloughing of the flaps, and a worse condition of the parts than existed before the operation.

Mr. Heath alluded to attempts which had been made to divert the urine into the rectum, but he considered that this was not feasible, from the inability of the rectum to bear the irritation caused by the urine, in a case in which a fistulous opening led from the bladder through the vagina into the rectum, the vulva was closed by an operation, but had subsequently to be reopened, because the mucous membrane of the rectum could not tolerate the urine.

Mr. Willett had amongst his out-patients a man whose urethra had been split by Mr. Holt's method, and who suffered from a fistulous communication between the bladder and the rectum, and although urine was passed in part at least through the rectum, from which it was discharged in a sudden gush after each micturition, it had caused no irritation of the gut.

Dr. Hilton Fagge exhibited three patients affected with

PARASITIC DISEASE OF THE NAILS.

These cases were remarkable not only on account of the rarity of such affections, but also because they had an important bearing on the question of identity or non-identity of the vegetable parasites which attach to the skin. The first case was that of a child, aged 11, who had for some years suffered from favus in a very severe form, affecting the head and limbs. The disease of the nail (the left little finger), however, had only commenced about three weeks before she came under observation. There was, therefore, an unusually good opportunity of observing the course of the affection. The affected part of the nail was of a sulphur-like colour, and when the lamina had been removed, the bed remained covered with an irregular striated mass of nail substance of a yellow or a brownish hue. This appearance was precisely that of the diseased nails on the other two children, and on microscopic examination they too were found to present sporules and beaded tubes. Yet these two children, who were sisters, displayed no favus on the scalp or other parts of the body. But one of them had for months been affected with tinea tonsurans, and both she and her sister (who was free from tinea tonsurans) presented spots of tinea decalvans. Dr. Fagge entered into some further details respecting these cases, from which he stated he was led to regard them as affording strong confirmation of the view maintained by Hebra and by Dr. Tilbury Fox, that the fungi found in the different forms of parasitic disease of the head are in reality mere varieties of one microscopic plant.

A committee was appointed to report upon a case shown by Dr. Marcet.

Mr. Christopher Heath related a case of

CANCER OF THE ŒSOPHAGUS,

with external openings, and involving the larynx, in a female aged 60. The dyspnœa which arose in the progress of the disease appeared to be of a spasmodic nature, but at the last it assumed the peculiar character which would appear to indicate some affection or displacement of the epiglottis. Tracheotomy could have given but slight and temporary relief, and was not, in Mr. Heath's opinion, justified under the circumstances of the case.

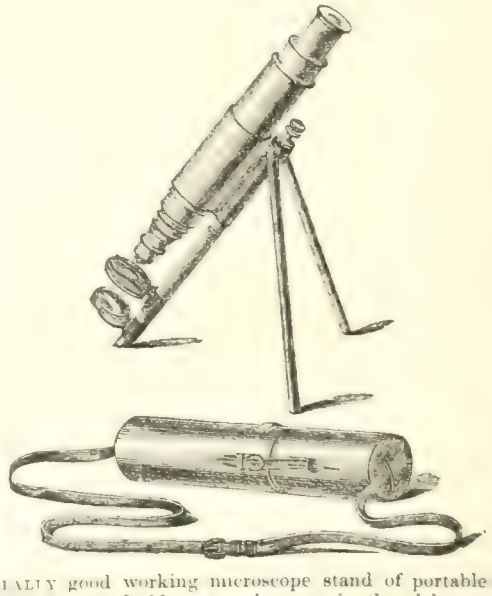
Mr. Henry Lee read the history of a case of

OPERATION FOR VARICOCELE FOLLOWED BY BLEEDING,

which seemed to be connected with a hæmorrhagic diathesis. Diffuse cellular inflammation, the sloughing of the skin, erysipelas and its consequences, which followed the operation, presented a combination of important circumstances such as were seldom met with, but from which the patient eventually recovered. After referring to the satisfactory results which he had obtained in a large number of cases by the subcutaneous section of veins for varicocele, no unfavourable result besides a local abscess or some bleeding easily controlled having occurred to him, he noticed that, amongst all the troublesome surroundings of this case, there were no symptoms of absorption through the veins. The first accident which occurred was arterial hæmorrhage; the cellular tissue then became distended with blood, and erysipelas followed the decomposition of the effused fluid. Through all these changes and adverse circumstances the divided veins were commanded by the acupressure needles, their channels closed, and the absorption of the decomposing matter was prevented. The patient took large doses of sulphites, but no particular good could be traced as the effect of this remedy. He was indebted to his safety, Mr. Lee thought, more to the closure of the veins by acupressure than to medicine. Inasmuch as Mr. Lee believed that more is learnt from unsuccessful cases than from successful cases, he had brought this instance of the unfortunate results which may follow a very slight operation before the Society, the origin of these unfortunate results in the present case having been, as far as can be ascertained, the wound of a small artery in a patient predisposed to hæmorrhage.

NEW INVENTIONS.

A NEW PORTABLE MICROSCOPE.



A really good working microscope stand of portable form has long been a desideratum; its uses in the sick room, at the sea-side, or in the course of travel, would be almost endless. Our attention has lately been called to an instrument manufactured by Mr. Baker, of Holborn, and devised by Mr. Maginnie, one of his assistants, which seems a nearer approach to perfection than any that we have seen, with regard to compactness, lightness, strength, and efficiency. No doubt it is capable of further improvement, and we trust that the makers may be encouraged by a rapid sale to give it all the attention which so useful an instrument deserves. The coarse adjustment is obtained by sliding the body through an outer tube, the fine by a screw of fifty turns to the inch, with a

milled head. A small circular stage with springs is fitted to it, but any other can be substituted. The body will take the usual eye-pieces and object glasses, and the whole, when folded up, packs into a leather sling case like that of a travelling telescope. Its price is moderate, and probably might be still further reduced in the event of its obtaining a large sale.

DINNEFORD'S FLUID MAGNESIA.

Although this well-known preparation can hardly be called a new invention, still the means of preparing it recently introduced by Messrs. Dinneford and Co. are worthy of all attention. With a laudable ambition, these gentlemen have striven to make this product as nearly as possible chemically pure, and to this end have put themselves to considerable expense. The ingredients are distilled water, pure carbonic acid, and pure carbonate of magnesia. Fluid magnesia has long been known as a valuable preparation, and Medical men were accustomed to prescribe it before its introduction into the last edition of the Pharmacopœia. It is necessary for the retention of the magnesia in solution that it should not exceed 10 or 13 grains to the ounce, and that an excess of carbonic acid should be held in solution. The former is the strength of Dinneford's preparation, the latter that of the officinal one. When sold to ordinary patients who take no great care to keep the bottle tightly corked, the Pharmacopœia solution is apt to precipitate part of its magnesia, but in the hands of careful Practitioners this will not be the case. Accordingly, Messrs. Dinneford prepare it of the officinal strength, but only send it out in jars for the use of Practitioners and chemists. The process of preparation is carefully performed. The carbonate of magnesia is first agitated in strong cylinders for some time with the proper quantity of distilled water; then the carbonic acid, which is carefully prepared in slate vessels to avoid all risk of metallic contamination, is compressed in by means of powerful steam machinery, and the insoluble magnesia is thus changed into a soluble bicarbonate. The expensive part of the apparatus is that connected with the production and storing of the carbonic acid gas in receivers made of slate. To obtain pieces of the requisite size and strength was no very easy matter, but it has been attained, so that now the acid is always free from any taint it might otherwise have possessed. Sulphuric acid and carbonate of lime are used for generating the gas, and to get rid of any contamination it is well washed both in a vessel for the purpose and in the receiver. It will thus be seen that every precaution is taken to insure perfect freedom from impurities, and every specimen is carefully analysed by a partner in the firm before being sent out. We think that Messrs. Dinneford and Co. may at once be proud of their process for the manufacture of fluid magnesia, and of the quality and strength of the product.

NEW BOOKS, WITH SHORT CRITIQUES.

Lectures on the Theory and Practice of the Ophthalmoscope. By Henry Wilson, F.R.C.S., M.R.I.A., Assistant-Surgeon to St. Mark's Ophthalmic Hospital, etc. Dublin: Fannin and Co. Pp. 148.

*** Mr. Wilson has long been well and favourably known to Surgeons, chiefly through his writings in the *Dublin Quarterly*, and we think this volume is likely to add to his reputation. Mr. Wilson modestly puts its value on a lower footing than we should be inclined to do. To all who want a plain, clear, and simple guide to ophthalmoscopic work we can cordially recommend it, for whether dealing with the instrument itself or with the changes it brings into view, Mr. Wilson is equally graphic and interesting.

Review of the History of Medicine. By Thomas A. Wise, M.D., F.R.C.S.E., M.R.C.S.E., Principal of the Dacca and Hooghly Colleges. Two volumes. London: John Churchill and Sons. Pp. 397 and 574.

*** This work will to many carry with it an unusual interest, seeing that it deals with the ancient systems of Medicine recognised by the Hindoos, the Buddhists, and the Chinese—the Medicine which was prevalent when we were barbarians. The name of the learned author is sufficient guarantee for the accuracy and value of the text.

Traité des Maladies Infectieuses. Par W. Griesinger, Professeur à la Faculté de Médecine de l'Université de Berlin. Traduit d'après la deuxième édition allemande par le Dr. G. Lemattre, ancien interne des Hôpitaux de Paris, etc.

Treatise on Infectious Diseases. By W. Griesinger, Professor in the Faculty of Medicine, Berlin. Translated from the second German edition by Dr G. Lemattre, former *interne* of the Paris Hospitals, etc. Paris: Baillière and Sons. Pp. 556.

*** We are glad to see this work in a French dress, for although the number of German scholars now in the ranks of the Profession is much greater than formerly, we suspect that there are many who prefer to study a work in French to one in German, and one in English to either. As many of our readers well know, this work originally constituted one of the volumes of Virchow's System of Medicine, and has been greatly modified in the second edition. Although perhaps Griesinger is best known in this country as an alienist through his valuable work recently translated for the New Sydenham Society, still on the Continent he is equally well known by his earlier work on zymotic diseases, which is the one of which we now speak. The maladies treated of are malarial diseases, yellow fever, typhoid affections, including typhus, typhoid, recurrent fever, bilious fever, and plague, along with cholera.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 26, 1868:—

Billam, James, 15, St. Germains-terrace, W.
Faraker, William Cregeen, Plough-road, Rotherhithe, S.E.
Godson, Henry, Colchurst Parsonage, Oldham.
Renshaw, Bernard Th. Cooke, Lee, Kent.
Swain, Edward, Long Clawson, Melton Mowbray.

As an Assistant in compounding and dispensing medicines.

Allkins, Thomas Boulton, Tamworth, Warwickshire.

The following gentlemen also on the same day passed their First Examination:—

Blenkarne, William L'Heureux, Guy's Hospital.
Vines, Henry Jeckell Kendrick, St. Mary's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Cely, R. W., M.R.C.S.—House Surgeon of Gray's Hospital, Elgin, N.B.

Dickson, Dr.—A Visiting Physician to the Margaret-street Infirmary for Consumption and Diseases of the Chest.

Jackson, John J., M.R.C.S. Eng.—Superintendent and Medical Officer of the Jersey Lunatic Asylum.

Manley, E., M.B.—Medical Superintendent of the Royal Lunatic Hospital, Liverpool.

Massey, Isaac, M.D.—Surgeon to the South Notts Regiment of Yeomanry Cavalry, *vice* Wright, deceased.

Wagstaffe, William Warwick, B.A., M.R.C.S., M.S.A.—Examiner in Arts at the Apothecaries' Hall, London.

NAVAL AND MILITARY APPOINTMENTS.

Armstrong, L., M.D., from the 13th Hussars.—Surgeon 6th Dragoons.

Beale, R. H., Staff Surgeon 49th Foot.—Surgeon.

Corbett, J., M.D., Staff Assistant-Surgeon 21st Hussars.—Assistant-Surgeon.

Furlong, J. S., M.D., Surgeon-Major from the 6th Dragoons.—Surgeon 13th Hussars.

Gallwey, M. M., M.D., Staff Assistant-Surgeon 41st Foot.—Assistant-Surgeon.

Gunning, J. D., Staff Assistant-Surgeon 1st Foot.—Assistant-Surgeon.

Hannan, J., Surgeon from the 49th Foot.—Staff Surgeon.

Hatchell, E. J., Assistant-Surgeon from the 21st Hussars—Staff Assistant-Surgeon.

Norris, N., Assistant-Surgeon from the 41st Foot.—Staff Surgeon.

Orton, T. J., Staff Surgeon 10th Foot.—Surgeon.

Sheppon, J. N., Assistant-Surgeon from the 2nd Dragoon Guards.—Staff-Surgeon.

BIRTHS.

Burns.—On March 24, at 4, Medway-villas, Gillingham, Kent, the wife of Dr Burns, R.N., of a son.

Jeffery.—On March 27, at Trinity House, Eastbourne, the wife of G. A. Jeffery, M.D., of a son.

Rasch.—On March 28, at 7, South-street, Finsbury, the wife of A. Rasch, M.D., of a daughter.

Milson.—On March 28, at 13, College-crescent, Belsize-park, the wife of R. H. Milson, M.R.C.S.E., of a daughter.

MARRIAGES.

Gruggen—Greenlaw.—On March 24, at Kingston Church, Hants, W. J. Gruggen, M.D., to Elizabeth Harriett, eldest daughter of the late J. P. Greenlaw, Esq., Commander R.N.

Jessett—Lee.—On March 19, at Catherington, Hants, F. B. Jessett, M.R.C.S., of Cosham, Hants, to Mrs. Fanny Elizabeth Ogle Lee, relict of the late Mr. G. Lee, London, and only child of the late T. White, Esq.

Wylie—Thompson.—On March 5, at St. Andrew's Church, Singapore, India, J. R. Wylie, M.D., of Batavia, Java, to Mary, second daughter of J. Thompson, Esq., solicitor, Bradford, Yorks.

DEATHS.

Barker, W. G., M.D., F.R.S., at Worthing, on March 24, aged 50.

Bone, T. G., M.D., Surgeon Ceylon Rifles, at 35, Duke-street, St. James's, on March 22.

Cox, F., F.R.C.S., at Walford, Rugby, on March 20, aged 55.

Murray, A., M.D., late H.E.I.C.S., at Can House, county of Londonderry, aged 68.

VACANCY.

West Norfolk and Lynn Hospital.—Physician.

POOR-LAW MEDICAL SERVICE.

. The area of each district is stated in acres. The population is computed according to the last census

RESIGNATIONS.

Bromsgrove Union.—The Third District is vacant: area 4988; population 991; salary £23 per annum

Luton Union.—Mr Henry Bate has resigned the Markyate-street District; area 11,056; population 3833; salary £50 per annum

Sheffield Union.—The Albrighton District is vacant; area 16,183; population 3234; salary £50 per annum.

Wrexham Union.—Mr. H M. Dixon has resigned the Gresford District, area 10,494; population 3381; salary £55 per annum.

APPOINTMENTS

Boston Union.—William A. S. Dykes, M.R.C.S.E., L.S.A., to the Kirton District.

Grantham Union.—Thomas J. Aubin, M.D. St. And., M.R.C.S.E., to the Saint Michael's District.

Pwllheli Union.—George F. Fulcher, M.B. Edin., M.C. Edin., to the Third District.

Wetherby Union.—John S. Wesley, M.B. Lond., M.R.C.S.E., L.S.A., to the First District.

Wigan Union.—John L. Molyneux, L.R.C.P. Edin., M.R.C.S.E., L.S.A., to the Pemberton District; and Henry Smith, M.R.C.S.E., L.S.A., to the Blackrod District.

ROYAL COLLEGE OF SURGEONS.—Judging from the number of correspondents, and the nature of their communications, addressed to the *Medical Times and Gazette*, there appears considerable misapprehension as to the seniority of gentlemen eligible for seats in the Council of the above institution; we have, therefore, at some trouble, selected twenty-four metropolitan, and the same number of provincial Fellows, in their chronological order, and, in doing so, have excluded those gentlemen who have been and are already members of the Council:—

Metropolitan.

Martin, Sir J. Ranald, F.R.S., Upper Brook-street.
Macilwain, George, Albany-courtyard.
Travers, Benjamin, Dover-street, Piccadilly.
Wilson, W. J. Erasmus, F.R.S., Henrietta-st., Cavendish-sq.
Holthouse, Carsten, Storey's-gate, St. James's-park.
Gay, John, Finsbury-place, S.
Cooper, George Lewis, Woburn-place
Ellis, George Viner, University College.
De Morgan, Campbell G., F.R.S., Upper Seymour-street.
Dixon, James, Portman-square.
Hird, Francis, Old Burlington-street.
Tamplin, Richard W., Old Burlington-street.
Brooke, Charles, F.R.S., Fitzroy-square.
Simon, John, F.R.S., Richmond-terrace.
Bowman, William, V.P.R.S., Clifford-street.
Wells, T. Spencer, Upper Grosvenor-street.
Jones, T. Wharton, F.R.S., George-street, Hanover-square.
Holden, Luther, Gower-street.
Coote, Holmes, Princes street, Hanover-square.
Lee, Henry, Savile-row.
Critchett, George, Harley-street.
Cooper, W. White, Berkeley-square.
Erichsen, J. Eric, Cavendish-place.
Canton, Edwin, Montague-place.

Provincial Fellows.

Mayo, Charles, Winchester.
James, J. Haddy, Exeter.
Terry, Henry, Northampton.
Fife, Sir John, Newcastle-upon-Tyne.
Hey, William, Leeds.
Ceely, Robert, Aylesbury.
De la Garde, P. Chilwell, Exeter.
Green, Thomas, Bristol.
Jordan, Joseph, Manchester.
Carden, H. Douglas, Worcester.
Nunneley, Thomas, Leeds.
Long, James, Liverpool.
Embleton, Dennis, Newcastle.
Windsor, John, Manchester.
Bullen, George, Ipswich
May, George, Reading.
Bartlet, Alexander H., Ipswich.
Clement, William J., M.P., Shrewsbury.
Humphry, G. Murray, F.R.S., Cambridge.
Rumsey, Henry W., Cheltenham.
Crowfoot, W. Edward, Beccles.
Copeman, Edward, Norwich.
Norman, H. Burford, Portsmouth.
Cass, W. Reader, Leeds.

There will be, as far as at present is known, four vacancies in the Council in July next, caused by the retirement in the prescribed order of Messrs. Partridge, Hodgson, and Sir William Fergusson, Bart., and by the decease of Sir William Lawrence, Bart. There is a rumour that a member of the Council is about to resign owing to the state of his health, and that perhaps more than one vacancy will occur in the Court of Examiners shortly.

AT the meeting of the Medical Society of London on Monday evening, Dr. Richardson exhibited a specimen of the iodide of methyl (CH_3I), whose properties he had recently been investigating. One noteworthy point connected with it is the fact that, methyl being so very light, the body contains probably more iodine in a soluble form than any other. Dr. Richardson's experiments led him to believe that its properties corresponded with its composition, and that one grain of it was equivalent in efficacy to about five grains of iodide of potassium.

A PROPOSITION has been started for the raising of a memorial to the founder of Epsom College (John Propert) by the old boys of the Institution. If they can collect enough, a scholarship will probably be founded; otherwise the sum obtained will be devoted to some useful purpose connected with the College. A preliminary meeting was held on Friday, March 20, at the Cannon-street Hotel, when W. W. Wagstaffe, Esq., Demonstrator of Morbid Anatomy, St. Thomas's Hospital, as an old boy, was asked to take the chair, and a committee appointed to conduct the business. This consists of W. Hoffmeister, M.D., Surgeon to H.M. the Queen in the Isle of Wight; A. W. L. Hemming, Colonial Office; R. P. Wintle, M.R.C.S., L.S.A.; W. Leigh, L.R.C.P., M.R.C.S., Surgical Registrar, St. George's Hospital; F. J. Marshall, M.R.C.S., L.S.A., Resident Accoucheur, St. Mary's Hospital; J. F. Goodhart; P. B. Mason, M.B. Lond., late Demonstrator of Anatomy, University College Hospital; F. Lever, with Mr. Wagstaffe as Treasurer, and G. Browning, 1, Copthall-chambers, Throgmorton-street, and F. Taylor, as hon. secs. To a young school, as Epsom College is, it is important for the old boys to take an interest in it, and as there are already 500 who have left, and there are 200 still remaining, they will probably raise a large sum.

THE LATE ELECTION AT THE ACADÉMIE DES SCIENCES.—It may be of interest to give the particulars of this. The special committee appointed to prepare the list of candidates for supplying the vacancy in the Foreign Associates caused by the death of Michael Faraday—the blue ribbon in science—sent up eleven names. On the first line was placed that of Sir Roderick Murchison, and on the second line, in alphabetical order, the names of Agassiz, of Cambridge, U.S.; Airy, the Astronomer Royal; Von Baer, of St. Petersburg; Bunsen, of Heidelberg; Forbes, of Edinburgh; Graham, Master of the Mint; Martius, of Munich; Peters, of Altona; Tchebychef, of St. Petersburg; and Wheatstone, of London—a battle of giants if ever there was one. The Academy itself, however, still added two other names to the list, those of Matteucci and Kummer—these two last candidates, in fact, carrying away the next largest number of votes to Murchison, who was elected by the voices of 30 out of the 50 Academicians present. There are only eight Foreign Associates of the Academy, and another vacancy has been caused by the death of Sir David Brewster. The other six are Herschel and Owen, of London; Ehrenberg, of Berlin; Liebig, of Munich; Wöhler, of Göttingen; and De la Rive, of Geneva.

ANTIMONIAL POISONING.—A curious case of antimonial poisoning has been under investigation at Melbourne. One Bellemey was an assistant at a shop of Mr. De Barr, chemist, Goulburn, New South Wales. Mrs. De Barr, a woman of very intemperate habits, eloped with him in August, 1866, carrying a considerable sum of money with her. The pair arrived in Melbourne in September under the name of Barnett, and passed as man and wife. On shipboard Mrs. Barnett had been attacked with severe vomiting which continued even after landing. She was attended by Mr. Beaney, who was called in by the prisoner to see her, and she was somewhat relieved. The same symptoms, however, again manifested themselves, and seemed utterly inexplicable to Mr. Beaney, though Dr. Turnbull, who was called in at this juncture, attributed them to excessive drinking. The woman continued to get worse and waste away gradually, and was confined to her bed. Mr. Beaney then called to his assistance Drs. Brownless and Girdlestone. They concurred in attributing the disease to antimonial poisoning, and by their direction a hired nurse was engaged to attend her, the prisoner being directed not to give her anything. Under this treatment she recovered a

little, and was then taken to other lodgings; but two or three days after Barnett (or Bellemey) dismissed the nurse, on the score of the expense she caused, and of being of no use. On July 24 (Mr. De Barr having died in the meantime) Bellemey and Mrs. Barnett were married—the marriage having taken place at the solicitation of the other lodgers in the place. On August 3 Mrs. Bellemey died, and a post-mortem examination discovered large quantities of antimony in many organs of the body. To meet the case launched against him, it was proved for the prisoner that the woman was a great drunkard; that she had been seen habitually to take pinches from a bottle labelled tartar emetic; that a few weeks before her death she took daily a number of seidlitz powders. It was shown that the *cheaper descriptions of these powders contained antimony*, and that these powders and the emetic are frequently taken to relieve the effects of drunkenness. The jury acquitted the prisoner, and it is said that whatever suspicions may have been entertained at first, and are still held by some, the greater number of those who heard the evidence believed in the man's innocence.

The Volunteer Medical Officers.—A large gathering of Medical gentlemen interested in the Medical service of the Volunteers met at the Grosvenor Hotel, Belgravia, on Tuesday, to discuss various questions connected with the service. Mr. Spencer Smith, the Medical officer of the Civil Service Rifle Volunteer Corps, was elected to the chair, and among those present were Dr. Westmacott (London Scottish), Dr. Carr (1st Kent), Dr. De Lisle-Allen (1st Middlesex Artillery), Dr. Griffith (1st Surrey), Dr. Burrows (Brighton), Dr. Thompson (Cinque Ports Artillery), Dr. Harling, Mr. Ernest Hart, Dr. Radford, and Mr. Nunn (9th Middlesex). The meeting was called, the chairman explained, on the requisition of a large number of Medical officers who held commissions in the Volunteer service, who felt, as he himself felt, that the Medical Profession, who had volunteered their services, were not made the best of, and that they were not doing for the country all they were capable of doing and all they were willing to do. On the contrary, the Medical officers in some corps felt they were kept altogether in the background. The Volunteer Medical officers desired to expand their branch of the service, he further explained, by the exercise of their professional abilities wherever the Volunteers might be, as at the Easter review, the Wimbledon meeting, and all like gatherings where the assemblage is an essentially Volunteer gathering, instead of arrangements for the Surgical care of the combatants on these occasions being left to others, and the Volunteer Medical officers not being considered, or very little considered. He expressed the deep sympathy which all present, and the Profession generally, felt towards the patriotic movement, and said that the Medical officers who had joined this movement desired only to act according to the regulations in the steps they proposed to take for the purpose of making the Volunteer Medical officers of more service to their regiments and to their country. The hon. secretary, Dr. John Murray, stated that there were 133 signatures to the requisition calling the meeting, and from selections he read of the letters it appeared that there was a unanimous feeling in favour of the establishment of the Volunteer Service Medical Officers' Association, which in the course of the proceedings it was unanimously resolved to form. Dr. Harling then moved the following resolution:—"Being desirous that, in the event of active duty in the field, the Volunteer Medical Service shall be found no less efficient than the combatant, those present are of opinion that on the occasion of field days and reviews some recognised organisation should be made in that service, with a view to the establishment of field Hospitals, and to the regulations of the duties of regimental Surgery, in regard to such Hospitals, ambulances, &c." Mr. Thompson, of Ramsgate, seconded the motion. Mr. Nunn proposed the second resolution, which in effect was that the Volunteers at Wimbledon and other camps should be under Medical officers of their own service, who would be glad to take charge of the Queen's troops stationed there, if necessary. Dr. Carr moved a resolution to the effect that representations should be respectfully urged upon the authorities as to the necessity of organisation in this branch of the service, and said that he had received every assistance from the War-office, for on occasions when Volunteer reviews were held in his county the Herbert Hospital had been placed at his disposal. This was adopted unanimously, and a committee was appointed to draw up the propositions to be submitted to the authorities. The proceedings closed with a vote of thanks to Mr. Spencer Smith for presiding, to Dr. Murray as hon. secretary, and to the manager of the hotel for the facilities he had given for holding the meeting.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Verax.—We know nothing of the case alluded to. Any candidate must have served in apprenticeship, or "after the manner of an apprentice," to be admitted to the examination at Apothecaries' Hall

G. B.—Apply to Van Abbott, Princes-street, Cavendish-square. For liquid preserved beef-tea, use Gillon's, to be had at J. Bell and Co., Oxford-street.

A. L. M.—The full title is, "A Contribution to the History of the Hip-joint Operations performed during the late Civil War: Being the Statistics of Twenty Cases of Amputations and Thirteen of Resections at this Articulation in the Southern Service. By Paul F. Eve, M.D., Professor of Surgery in the University of Nashville, Tenn. Extracted from the Transactions of the American Medical Association. Philadelphia: Collins, Printer, 705, Jayne-street. 1865."

A Disappointed Reader.—It is a blunder of our *sharp* contemporary. The lectures were brought to a close last week. Had you consulted our "Appointments for the Week," the disappointment would not have occurred.

A Metropolitan Student.—Having passed your *primary* will not exempt you from the examination in Medicine unless you "go up" before October next.

Bacchus.—There is no difficulty whatever in importing the Gauphine. Particulars shall be sent to you in a day or two, or, if you please, call on the gentleman mentioned, who will give you every information.

A Practical Pillar.—The necessary forms may be obtained on application to the Secretary of the College. Some time in July next. The back numbers shall be forwarded.

Advertising under the Name of a Registered Practitioner.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I met the enclosed advertisement in the advertising columns of a very respectable periodical, *Chambers's Journal*, and as I have a copy of this year's Medical Directory I looked for the individual named. To my astonishment I find there is one, and only one, of the name practising in Scarborough, and as I cannot think that any registered Practitioner would send forth such advertisements, it appears to me that some unregistered Practitioner must be trading on the name of the real man. Supposing this to be the case, is there no remedy within the scope of the Medical Act? May any man who has the same name as myself, and in a place where I am the only registered Practitioner of that name, issue quack advertisements and not render himself amenable to law? For it is obvious that a lawfully registered Practitioner may become known to the public as a quack, while he has the most inveterate aversion to quackery in all its branches. This may not only embroil a man with his Professional brethren, but with the general public, and thus damage his revenue. In this respect I think the law requires amending, if it cannot protect him. Could there not be some title issued by the Medical Council to all registered Practitioners, which no one else could assume but under heavy penalties? Let this title be universal, whether the man may be an M.D., Surgeon, or Physician. It would matter little whether he were called "Medico" or any other name, so long as it were understood and recognised.

But let it be clearly understood (supposing that this title were adopted), that any unregistered person calling himself "Medico" would be imprisoned, and I think there would soon be a perceptible diminution in the number of advertisments, which are the disgrace of a civilised country. Hoping that these remarks may lead to some improvement,

I am, &c. William Stephen, M.D.

Torphins, Aberdeenshire, February 5.

*** The advertisements enclosed by our correspondent are headed, "The Anti-Lancet—Important Facts" and "Crosby's Balsamic Cough Elixir." They are in the usual style of such advertisements.

The Diseases of Abyssinia—Belladonna in Hysteria.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your account of the diseases of Abyssinia, of January last, is very interesting—so much so that, like Oliver Twist, I am "asking for more." Your correspondent asks, "What is the bonda, that disease peculiar to Abyssinian damsels?" Is it a form of hysteria? I have no hesitation in saying that it is a peculiar species of that Protean malady. Debreyne, in his "Thérapeutique Appliquée," gives a somewhat analogous case as follows:—

"A young woman, of lymphatic temperament, with irregular catamenia, twenty-five years of age, had attacks of hysteria so extraordinary that she was thought to be insane. The following were her symptoms:—In the midst of some occupation—a conversation, for example—she would suddenly stop, look attentively on the ground, as if she listened with the greatest fear; her eye became animated, and, in a short time, she bounded (*elle bondissait*), uttering a horrible cry. At the same time her face became intensely red, and her mouth was convulsively agitated. Her limbs were stretched and stiff, trembled, and executed the most singular and varied movements. Presently she would jump on a piece of furniture, and take a position the most strange and difficult. She kept this painful attitude many minutes, and then took a rapid succession of leaps, bounds, contortions, stamping with her feet on the ground, all this accompanied with frightful cries and real howlings (*véritables hurlements*). Seated on a chair she would leap with a single bound on a table, and sometimes more than two feet above it. Each attack lasted about twenty minutes, and occurred every eight or fifteen days. They terminated always in a passion of tears.

For six years this girl had been in this frightful state when I undertook the treatment of her case.

"I determined at once on giving my favourite remedy, and powerful sedative in such melancholy attacks, the extract of belladonna—R Extract of belladonna one drachm, powdered aconite half a drachm, powdered liquorice q. s. for sixty pills. To take one pill the first day, two the second, and three the third day, morning, noon, and night, one hour before meals. These doses not to be exceeded, and, if the sight is affected, to be suspended altogether for some days.

"From the commencement of the patient taking this medicine, I had the satisfaction of seeing the attacks become less frequent and violent, and as I augmented the dose (never exceeding four grains per diem in three portions, morning, noon, and night), at the end of six months they had altogether disappeared. After a cessation of three years and a half I consider the cure complete."

Thus far Debreyne, whom I consider a perfectly reliable authority, and, from what I have seen in my own practice, I am decidedly of opinion that the extract of belladonna, given as above, is a *quasi*-specific—the sedative above all others—in nervous, convulsive, and spasmodic affections.

Camelia. I am, &c. WILLIAM WINDER, M.D.

TESTING WATER FOR ORGANIC IMPURITIES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In connexion with remarks on "country wells," Professor Attfield simply stated, in his letter to the *Times*, that "polluted water does not generally betray its condition till possessed of a strong odour; earlier intimation may, however, be obtained by the following tests:—Half fill a common water-bottle, cover its mouth with the hand, violently shake for a minute, and quickly apply the nose. If nothing unpleasant is detected, tightly cork the bottle, set it aside in a warm place at about the temperature of one's body for a couple or three days, and repeat the shaking, etc. Water of very bad quality may thus be recognised without the trouble and expense of analysis." Of course householders would get still earlier intimation, or else the comforting assurance that the water contained no organic impurity, by seeking Professional assistance; but such a statement by an analyst in a leading newspaper would have been scarcely ethical. I have found Professor Attfield's hints of very great use, and am convinced that few persons besides your correspondent, Mr. J. B. Muter, could possibly have received from them the impression that any water free from carbonic acid [illegible]. I am, &c. SANITAS.

COMMUNICATIONS have been received from—

Mr. D. J. SYMS; Mr. [illegible] WILLS; Mr. [illegible] DURAND; Mr. DONNELLY; Mr. [illegible]; Mr. ALLINGHAM, A. L. M.; Dr. C. H. LAKER, Dr. MOORE ANDERSON; Dr. [illegible]; Mr. J. R. LANE; SANITAS; Mr. J. J. JACKSON, Dr. E. R. TOMPSON; Mr. C. J. [illegible]; Dr. CHAMBERS; Dr. ROBERT BARNES; Mr. A. GARDINER BROWN; Dr. MAUDSLEY; Mr. J. CHATTO; Dr. ALTHAUS; Dr. HUGHLINGS JACKSON; Dr. MURRAY.

BOOKS RECEIVED—

Cutcliffe on Lithotomy—Cooke on the Electric Telegraph—Waters on the Chest—Lyell's Principles of Geology, two vols.—Trench's Report of the Health of Liverpool—British Journal of Dental Science—Report of the Brighton Sanitary Association—Hawkins on the Desirability of National Education for the Deaf and Dumb Poor—Newman on the Drainage and the Water Supply of Towns—Report of the Nottingham United Lunatic Asylum—Woods [illegible] Vaccination—How you have Vaccination?—Report of the Cambridge Pauper Lunatic Asylum—Hurling on Spontaneous Vaccination—Medical Journal, No. 67—Pharmaceutical Journal, No. 106—Bedford's Obstetrics, fourth edition—Medical Mirror, No. [illegible].

NEWSPAPERS RECEIVED—

Medical Press and Circular—Wolverhampton Chronicle—Harrogate Herald—Leeds Mercury.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 28, 1868.

BIRTHS.

Births of Boys, 1[illegible]7; Girls, 1[illegible]8; Total, 2[illegible]8
Average of [illegible] preceding weeks, 1858-67, 2[illegible]2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	[illegible]	[illegible]	1[illegible]0
Average of the ten years 1858-67	7[illegible]4	7[illegible]	1[illegible]7
Average corrected to increased population..	..	..	1636
Deaths of people above 90	..	..	[illegible]

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.	Cholera.
West ..	463,[illegible]	1	14	4	..	9	3	1	..
North ..	618,210	4	5	7	..	9	9	2	..
Central	378,058	4	3	1	..	6	4	2	..
East ..	571,1[illegible]	[illegible]	7	[illegible]	[illegible]	7	5	5	..
South ..	773,17[illegible]	[illegible]	1[illegible]	[illegible]	5	21	12	4	..
Total ..	2,[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	33	14	..

METEOROLOGY.

From Observations taken at the Greenwich Observatory.

Mean height of barometer .. .. [illegible] in.
Mean temperature .. .. [illegible]
Highest temperature .. .. [illegible]
Lowest temperature .. .. [illegible]
Mean dew-point temperature .. .. [illegible]
Composition of the atmosphere .. .. Normal.
Ozone .. .. [illegible]

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 28, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending Mar. 28.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending Mar. 28.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2308	1441	1320	58·5	29·9	42·7	0·51	32
Bristol (City) .	167487	35·7	127	75	†103	60·8	28·3	41·2	0·16	16
Birmingham (Boro')	352766	47·0	265	171	155	55·0	29·0	42·3	0·26	37
Liverpool (Borough)	500676	98·0	400	290	261	..	..	..	..	..
Manchester (City) .	366835	81·8	288	208	†193	59·6	26·0	42·4	0·28	74
Salford (Borough) .	117162	22·7	93	59	60	56·[illegible]	25·9	41·7	0·09	70
Sheffield (Borough).	232362	10·2	218	122	113	57·7	27·0	42·3	0·42	46
Bristol (Borough)	108019	16·4	104	55	56	..	..	..	..	..
Leeds (Borough) .	236746	11·0	256	120	106	60·[illegible]	28·5	41·5	0·02	02
Hull (Borough) .	108269	30·4	85	50	49	58·[illegible]	27·0	40·7	0·45	45
Newcastl-on-Tyne, do.	127701	23·9	118	68	66	54·[illegible]	29·[illegible]	37·8	0·35	35
Edinburgh (City) .	177[illegible]	49·0	132	85	106	56·7	28·[illegible]	42·[illegible]	0·81	81
Glasgow (City) .	442868	88·9	586	262	251	58·6	29·2	42·2	0·61	62
Dublin (City and some suburbs) .	319985	32·8	179	*157	176	59·8	33·3	45·4	0·[illegible]	38
Total of 14 large Towns . . .	6391080	34·7	4959	3163	3·25 Week ending Mar. 21.	60·8	25·5	41·[illegible]	0·[illegible]	51
Vienna (City) .	(1863) 560000	..	..	..	388	..	..	40·8	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·[illegible]4 in. The barometrical reading decreased from 29·93 in. at the beginning of the week to 29·04 in. by noon on Monday, March 23; increased to 29·98 in. by noon on Wednesday; decreased to 29·50 in. by noon on Thursday; and increased to 30·[illegible] in. by the end of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 44·[illegible].

APPOINTMENTS FOR THE WEEK.

April 4. Saturday (this day).

Operations at St. Bartholomew's, 1 p.m.; St. Thomas's, 9 a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 11 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Roscoe, "On the Non-metallic Elements."

6. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

[illegible] Society, 8 p.m. Mr. J. N. Radcliffe, "Report on the Recent Epidemic of Cholera."

[illegible] Society, 8 p.m. Mr. W. A. Harrison, "On Cases of Osseous Union of the Upper and Lower Maxillæ with remarkable Displacement of the Teeth and Alveoli, and the Treatment resorted to for its Improvement; illustrated by Models and Diagrams."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

[illegible] Society, 8 p.m. Dr. A. Campbell, "On the Treatment of Drunkenness." Dr. Edw. Meryon, "An Account of some Cases of Arrest of Development." Francis W. White, Imperial Commissioner of Customs, "Notes on the Native Inhabitants of Formosa."

Pathological Society, 8 p.m. Meeting.

8. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Harveian Society (Council), 7½ p.m.). 8 p.m. Dr. Barnes, "On Insanity in Pregnancy."

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

10. Friday.

[illegible] Ophthalmic Hospital, 2 p.m.

Medical Society, 8 p.m.

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

Lesions of the Motor Tract.

(*Continued from page* 336.)

Paralysis of the ninth or hypoglossal seldom occurs alone. I might inform you that a patient can talk without a tongue. In those barbarous times when men tortured one another for differing in opinion, and had a habit of cutting their fellow-creatures' tongues out, it was thought, in the case of more than one historical personage, that a miracle had been wrought, because the victim spoke after excision of this organ; but you might have witnessed the same feat in a patient who was in the Hospital not long ago.

Paralysis of the eighth pair I have already alluded to under the name of labio-glosso-laryngeal paralysis—a form of paralysis in which the organs of speech are affected owing to an implication of the seventh, eighth, and ninth nerves, the portions of these nerves which act harmoniously for the purposes of vocalisation having their centres in close proximity, and consequently disease covering a very small spot in the medulla oblongata is sufficient to produce a well-marked result. The fact of the larynx being partially paralysed is explained by the observation of Lockhart Clarke, that the internal root of the spinal accessory nerve, which mainly forms the motor supply to the larynx, proceeds from the same spot as the lingual. The recurrent nerve, or motor nerve to the larynx, has, however, other filaments than those derived from the spinal accessory—viz., from the lingual, facial, and cervical nerves; when, therefore, the grey centre of the spinal accessory is involved, the nerve is only partially affected. If the nerve is pressed on in its entirety, then a complete paralysis would occur. If both recurrent nerves were compressed, then the larynx would be paralysed and suffocation ensue. Reid's experiments of dividing the recurrent nerve paralysed the dilating muscles of the larynx, and the aperture no longer opened during inspiration, the abductors, and more especially the crico-arytenoidei, being rendered inactive. Under these circumstances tracheotomy has, on more than one occasion, saved the life of the patient. This double paralysis is not common, but paralysis of one side is often met with where the left recurrent, as it passes under the arch of the aorta, is compressed by an aneurism. Such specimens you will see in our museum. A living example of this I believe I have now in my ward. When the larynx is examined by the laryngoscope, the vocal cord on one side is seen to be immovable, and the effect, as you hear, is what you might expect—a stridulous voice and a peculiar brassy cough.

I was shown one day at the Veterinary College an exact counterpart of a larynx in our museum, where the muscles on one side were wasted owing to pressure on the inferior laryngeal nerve. It came from a horse who was said to be a "roarer," and I was informed that this atrophy of muscles on one side was the pathology of "roaring." I could learn nothing about aneurisms.

As regards the trunk of the pneumogastric, I need not enter here upon the effects of its lesions. You will find them dilated upon in your works on physiology. The interest for us clinically is, that they are not unfrequently involved in cancerous disease which attacks the œsophagus, and, as a consequence, a low form of pneumonia with sloughing of the tissue, results; and here the same question occurs which we shall subsequently have to refer to—whether this effect is due simply to a nutritive influence being removed, or whether it does not arise from altogether secondary causes, as in the cases of the bed-sore and cornea already mentioned—that is, that the nerve power being lessened, the efforts of expectoration become more difficult, mucus collects in the tubes, and thus the further inflammatory processes are set up.

Diseases implicating this nerve are well worth studying, owing to its numerous relations and the consequent disturbance of more than one function. Thus, knowing its distribution, you might suspect that an irritation of stomach would produce cough; also how disease of the lungs would cause sickness. I have seen more than one case of phthisis treated for a long time as a stomach affection, and in one man the vomiting was so obstinate that a scirrhous pylorus was actually diagnosed. I apprehend that it is through implication of this nerve in disease of the base of the brain that many well-marked symptoms are observed. In arachnitis, for instance, its influence on respiration is seen in the irregular breathing or sighing; on the stomach in vomiting, which is so constant a symptom; and the influence on the heart in the diminution of its pulsations, producing the slow labouring pulse of cerebral disease which is so well known.

The influence of the pneumogastric on the heart has been made the subject of such laborious investigations, that I cannot but allude to it, especially as these have given rise to the opinion that this nerve acts as a regulator to the heart, and has even suggested the idea that many organs of the body are supplied by similar ihibitory or restraint nerves. You know that certain influences will not only excite the various organs to increased action, but there are other influences which tend equally to arrest them—or, at least, so it would appear. If the organic machinery is kept in action by certain nervous forces, originating in ganglia and distributed amongst its different parts, you can conceive how a diminution of this force will arrest the action, and with this explanation we have hitherto been content. But experimenters of late have made it appear that there is some direct and active power at work which can restrain the different movements of the animal mechanism. Thus an injury to the spine will often cause a diminution of the number of the heart-beats. This might be explained by the paralysing of the motive nerves of the heart; but the same result is said to arise from an irritation of the pneumogastric nerve in its course. It has been conjectured, therefore, that the heart, with other organs, has two sets of nerves—one to excite it to action, and another to control or arrest it. Certain it is that many organs have more than one supply, not only the one from the sympathetic and the other from the spinal system, as seen in the intestine or uterus, but a distinct supply from an independent source; the one is the motor, and the other the regulator, or the inhibitory nerve. Thus, for example, if you take the heart, this is supplied from the ganglionic or sympathetic system, and which, as you know, is associated with certain spinal nerves coming off from the lower cervical and upper dorsal portion; it is also supplied by the pneumogastric. Now, it has been shown that if the sympathetic nerve be galvanised the heart's action is much increased; and in like manner, if the pneumogastric be galvanised, the heart's action is retarded, or, as the engine-driver would say, "slowed." It is thought, therefore, that the sympathetic stimulates the heart to increased action, and the other tends to retard or regulate it. Now, if these facts are true, they are of importance in practice, and, as Dr. Handfield Jones has well shown, appear to be to a certain extent corroborated by clinical observation. We find, for example, that irritation of the sympathetic produces palpitation, and it is thought that that remarkable disease, exophthalmic bronchocele, where the eye protrudes, the thyroid enlarges, and the heart beats violently, is due to irritation of the sympathetic. On the other hand, if true, division of sympathetic would cause the heart to gradually cease to beat. The phenomenon of its arrested function is probably seen in those recorded cases of sudden death from a blow on the epigastrium, as also in those cases which, no doubt, some of you must have witnessed, where an injury to the spinal cord has brought down the action of the heart. Such an example I saw not many weeks ago, where, from a fracture of the dorsal spine, the heart's beats were reduced to 40. The cardiac plexus was there being paralysed through the spinal nerves. But this, it is said, is not the whole explanation; it is allowing the pneumogastric, whose influence is to arrest the action of the heart, to come into play. It is further said that if the pneumogastric, or nerve which "slows" the heart, be divided, the organ commences to beat violently, not being overruled, until at last it runs wild, and its action ceases from sheer exhaustion. If the divided pneumogastric were galvanised, this would, on the contrary, gradually "slow" it until it stopped. In opposition to this, I have seen it lately stated that Zermack has been able in his own person, by pressure on the pneumogastric nerve at the border of the sterno-mastoid, to produce a decided diminution in the frequency of his pulse. I need scarcely say that this inhibitory action of nerves is by no means satisfactorily proved, for it has been shown that a slight stimulus, as from galvanism, would excite to moderate action, whereas an increased stimulus would arrest it. You see, however, into what a large sphere

of disease a discussion of such nervous influence might lead us; and if these observations are true, they are surely of practical importance to us. If we have a notion why the heart's action is retarded in one case or accelerated in another, we may be on the road for an appropriate remedy, besides affording suggestions for the *modus operandi* of medicines.

Suppose the inhibitory action of the pneumogastric be true (but which is by no means proved), it is argued that as this nerve supplies stomach and heart it can be seen how dyspepsia and flatulence give rise to cardiac disturbance, and how also in heart disease gastric disorders are amongst the most distressing symptoms. Suppose, then, that we have a case of dyspepsia which we believe to be due to a want of tone in the stomach arising from exhaustion of the nervous system, or due directly to a deficiency of good nerve force supplied by the pneumogastric; you might expect that, the influence of this nerve being also removed from the heart, the sympathetic would come into play, and a palpitation result. This is certainly what you see, and I might also inform you, as a matter of experience, that such palpitation would not be cured in the same manner as that dependent on organic disease. It would be relieved by a tonic, as iron, or, as a temporary remedy, by a glass of brandy-and-water. Digitalis would have no effect in arresting the irregular or quick action, whereas this would be the drug in organic disease, where again alcohol often aggravates the excitement.

This apparent divergence from my subject arises from my being obliged to dwell upon the functions of the pneumogastric and the symptoms of its paralysis. The result on the lungs is one well known to you, and much dwelt upon by physiologists who follow the experiments of John Reid; but these other results, as seen daily by us, on the functions of the stomach and heart, are, I think, of more practical value, and come into my province as a teacher of clinical Medicine. As I have alluded to this regulating action of the nerves, or the inhibitory influence, as it has been called, I might state that the same doctrines have been attempted to be applied to other organs.

As regards respiration, the two kinds of nerves, it is stated, are not so well marked. A stimulus applied to the pneumogastric certainly does not arrest the breathing in the same way as it stops the heart's action and causes vomiting; but it is said that galvanising the superior laryngeal will arrest the respiratory process.

As regards the intestines, it is said, in like manner, that the splanchnic nerves are the inhibitory or restraint nerves. The doctrine is carried still further, for since the excito-motor functions of the spinal cord do not come into play until the communication with the brain is severed, it is thought that there are special restraint nerves under the dominion of the will. Remember, I do not want to teach this dogmatically, for there are some who I know would feel satisfied with the older theories of exhaustion—that is, that an organ was stimulated by the nerves which supply it, and that its opposite condition was simply one of exhaustion. Of late, however, the theory of inhibition by distinct restraint nerves or Hemmungsnerven has been in vogue in some German Medical schools. The theory will certainly account for some of the abnormal conditions of stomach and heart which I have mentioned, and it is for this reason that I have thought it right to bring the subject before you.

Passing lower down, we come to the phrenic. You know how an injury to the cord above the principal nerve which forms its trunk—the fourth cervical—is quickly fatal. If the nerve be implicated in disease, a paralysis of the diaphragm results. About two years ago a man came to the Hospital who said he had had increasing shortness of breath for twelve months; on examining his chest the diaphragm was seen to be perfectly useless, the abdomen sank in during each inspiration, and the lower part of the chest dilated in a most remarkable manner. He attributed it to a blow in the neck from a man's fist. The lungs became congested, and gradually indurated, and in a few weeks he died.

I make no mention of the cerebellum, for I do not know its function. I see no reason to suppose with many physiologists that its use is for the correlation of motion. It has been said, also, that the central and lateral lobes have different functions—the median or vermiform process giving perception of position; the lateral lobes for cutaneous sensibility, and developed in proportion to the amount of cuticular nerves. Only lately my friend, Dr. Dickinson, of St. George's, has revived the physiological notion that it has nothing to do with sensation or the sexual propensities, but has influence on the voluntary muscles, and that one lobe is probably larger than the other in persons who have lost a leg.

We repeatedly see cases of abscess, apoplexy, or tumour of the cerebellum; the patient is not paralysed, although he never cares to move; he generally lies coiled up in bed, and gradually dies out—the symptoms being altogether of a negative character until the final coma approaches.

In speaking of the results of disease of the spinal cord and its nerves, I have been referring for the most part to the motor tract; for, as I have already said, we can by no means define the course of the sensory tract in its upper portion from clinical observation. Physiologists believe it runs through the centre of the cord to the floor of the fourth ventricle, and so to the upper surface of the crura cerebri, and on to the thalami, where it ends. We cannot find, however, in disease of these "head centres," that a lesion of any special part will cause loss of sensation without loss of motion—in fact, as I before stated, I never saw a case of paralysis of sensation without motion from any disease of the brain. I believe it often accompanies it, and would be more frequently found if looked for. In disease of the pons, as from effusion of blood, it is impossible, if the lesion be of any extent, that the sensory fibres can escape, and thus it is more especially in these cases that loss of sensation has been noticed. I might also here allude to the occasional occurrence of pain in the paralysed limb; as a matter of observation it augurs an evil prognosis. How it is caused it may be difficult to explain; whether, owing to the disease within, some change occurs at the periphery of the nerves which renders all movement painful, or whether, indeed, the sensation be altogether subjective and due to the morbidly impressionable centre.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CASES OF

CICATRIX AFTER BURNING TREATED BY SURGICAL OPERATION.

By J. FAYRER, M.D., F.R.S.E.,

Senior Surgeon, Medical College Hospital, and Professor of Surgery, Calcutta.

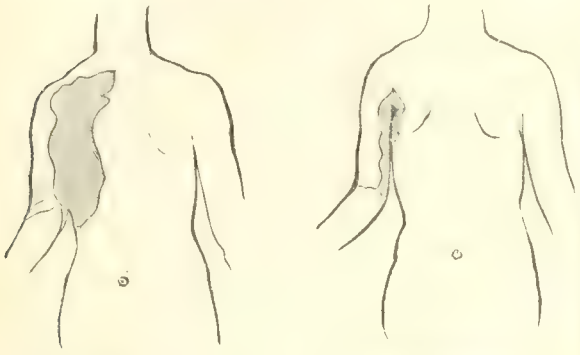
Case 1.—*Removal of a Cicatrix connecting the Arm to the Thorax, the result of a Burn.*

KANIMEE, a Hindoo girl aged 5 years, was admitted into the Medical College Hospital on November 26, 1866, with an extensive cicatrix the result of a burn two years before. The cicatrix is situated on the upper and anterior part of the right side of the thorax and on the right arm, which is drawn down and tied to the chest to within two inches of the elbow. The contraction is said to have taken place very gradually, and the arm is now all but useless. The forearm is also somewhat contracted on the arm by a part of the same cicatrix, which occupies the aspect of flexion. The burn was caused by the child's clothes catching fire. She is in good health in all other respects.

On December 12 I removed the cicatrix. It was divided up to the axilla, and the arm drawn away from the side. Great part of the cicatrix tissue on the arm and thorax was dissected away, and the edges brought together on the inner side of the arm and on the thorax. Horsehair sutures were used for this purpose. The wound was very large, and the loss of blood considerable from oozing from small vessels; only one ligature was required. The cicatrix itself was dense and firm, like the firmest fibrous tissue. There was no untoward occurrence after the operation. The child had slight fever, and some of the sutures cut themselves out from the tension of the stitched edges of the wound, but by careful dressing the wounds united, and, when complete healing had occurred, the arm was almost restored to its natural power of motion; a slight contraction where the two wounds met in the axilla was all that remained. She was discharged on March 20 with a most useful arm. The parents would not let her remain any longer, or I should have removed that portion of the cicatrix which contracted the elbow-joint.

Remarks.—It is very desirable to remove as much of the cicatrix as possible in the treatment of these cases, especially of the central and firmer portions of it, where the tissue has lost all resemblance to skin and assumed that of dense fibrous tissue. The edges of the wounds caused by the removal of

the cicatrix being brought into union, it is very improbable that contraction to the same extent can recur; everything depends on careful dressing after the operation to prevent the granulating surfaces from coming into apposition, where they would certainly unite, and to prevent contraction from altering the line of union during the process of healing. Passive motion of the limb or contracted joint is very necessary for some time after repair is perfect, and the inunction of some oily embrocation tends to expedite the restoration of motion to the joint and pliancy to the tissue.



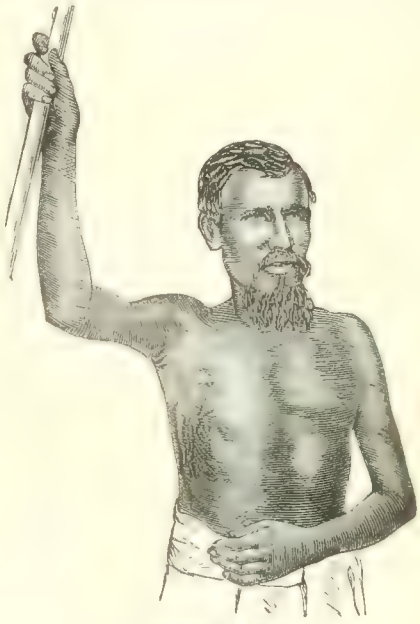
After the operation.

Case 2.—Removal of a Cicatrix connecting the Arm to the Thorax and contracting the Forearm on the Arm, the result of a Burn in Infancy.

A Mohmmaedan, aged 36 years, was admitted, on September 5, 1867, with an extensive cicatrix binding the right arm to the thorax and partially flexing the forearm on the arm. It was the result of a burn from the dress catching fire when he was an infant of a year old. The cicatrix was very rigid and tense, and prevented use of the arm. On its posterior surface, it presented an ulcerated surface, with all the appearance of epithelioma, which was confirmed by microscopical examination. The ulceration commenced about two years ago, and has never healed, but is slowly spreading. In other respects the patient was in good health, and expressed an anxiety to have an operation performed for his relief.

September 16, 1867.

On September 16, I dissected the cicatrix and the epitheliomatous growth entirely away—that is to say, I removed all the rigid and fibrous portions of the cicatrix. The operation was a formidable one, and about twenty-five ligatures were needed to control the hæmorrhage. The raw surface exposed was very large. I brought the edges together where they could be united without excessive tension, and dressed them carefully, with the view of supporting the parts as much as possible. The wound slowly healed, and as soon as passive motion could safely be resorted to, it was practised with the view of keeping the new cicatrix from contracting. He was discharged on January 15, 1868, vastly improved and much pleased with the results of the operation. The motion of the limb was almost perfectly restored.



January 15, 1868.

The accompanying photographs represent the state of the limb and the epithelioma before and after the operation. The new cicatrix is linear, and has not the slightest indication of any recurrence of the epithelial growth. The dotted lines mark the course of the incisions.

Case 3.—Contraction of the Knee-joint caused by the Cicatrix of a Burn—Removal of the Cicatrix and Extension of the Limb.

On April 17, 1867, a Bengalee lad, about 18 years of age, named Russick, was admitted into the Medical College Hospital with his right leg much contracted at the knee-joint, the result of cicatrisation of a burn inflicted when he was a child. The limb was wasted, both leg and thigh being smaller than the left leg and thigh. The femur seemed smaller, and the knee was more pointed, than the other. He walked with great difficulty, and was quite a cripple. From the middle of the posterior aspect of the thigh to the lower third of the leg there is a dense band of firm cicatrix tissue, which is peculiarly hard and rigid; around it the cicatrix is soft, and more like true skin. The leg remains bent at right angles, beyond which it cannot be extended. He is a melancholy, depressed-looking lad, and was much out of health when admitted.

On May 6, his health being much improved, I operated for the removal of the cicatrix. I made vertical incisions on either side of the cicatricial band, and dissected it entirely away, removing a considerable portion of the cicatrix tissue on either side of it. I then raised the integument, and brought it together in the median line with sutures. He was under the influence of chloroform, and bore the operation well. The loss of blood was not very great, though the oozing was considerable. I found that I could extend the limb considerably, but not perfectly, after the operation; but I kept it in the flexed position to allow the wound to heal more readily, and secured it in that position on an angular splint.

May 7.—Has no fever; appears to be doing well. The wound gaping a little, I put in a few horsehair sutures between the wires.

10th.—The wound is healing. He has no fever, but he continues in a sullen and depressed condition.

12th.—Doing well, in better spirits; wound healing to a great extent by first intention. In some places the sutures have cut themselves out, and the wound gapes, but is granulating healthily.

June 6.—He is doing very well; wound nearly healed; he walks about; the leg much more extended. I have ordered daily extension on a M'Intyre's splint, and passive motion of the joint once in the day.

27th.—The wound has almost entirely healed, and his leg is nearly straight. He is now in good health and spirits, walks with a stick, and is rapidly regaining the use of the limb. The atrophied muscles appear to be gradually regaining their vigour.

29th.—He was discharged at his own request, and the accompanying photographs show the amount of benefit derived from the operation. The dotted line marks the course of the incision.

Remarks.—Deformities of this character, the result of burns from the clothes catching fire, are not at all unfrequent in this country, and often come under treatment in our Hospitals. In cases like the present, where a limb is contracted and tied down by the cicatrix, it is satisfactory to know that a Surgical operation may give great relief. It is necessary, I believe, to dissect away as much as possible of the most rigid part of the cicatricial band, and to bring together the edges of the wound. It is not to be expected that adhesion will result throughout the whole extent of the wound, but portions unite by granulation, and the remainder by adhesion. If the subsequent dressing be carefully managed, the success is sometimes more than one could hope for, and if passive motion be carefully practised when the wound is healed, the movements of the limb, which has been contracted since infancy, may be in a great measure restored.

I have in a former notice remarked on the tendency of these old cicatrices, when exposed to irritation, to degenerate into epitheliomata. I think there can be no doubt that they have this tendency at or after the middle period of life, if not earlier; and I also believe that they offer an example of that doubtful or doubted pathological phenomenon—the spontaneous occurrence of a disease of a truly malignant character, the result of degeneration of the adventitious although homologous tissue of the fibrous structure of which the cicatrix is comprised.

The second case here related seems to be an illustration of the conversion or degeneration of an old cicatrix into an epithelioma.

Expulsion of a large Calculus through the Female Urethra.—Prof. Botti, of Genoa, relates the case of a woman, 54 years of age, who, having suffered for several years from symptoms of stone, spontaneously expelled an enormous calculus in October, 1867. At the time of its expulsion it weighed 6 ounces, and was still 65 grammes in weight four months after, measuring 76 millimètres in length and 40 in breadth. No ill consequence followed the great dilatation of the urethra required for its passage, as two days after the expulsion the patient was enabled to retain or pass her urine at will. He believes this case is corroborative of the propriety of the practice insisted upon by Prof. Borelli, of Turin, of substituting rapid yet progressive dilatation of the urethra for [illegible] in females.—*Gaz. Med. de Turin*, March 30.

CASE OF

EXTENSIVE DESTRUCTION OF THE FACE BY FIRE IN AN EPILEPTIC.

EXFOLIATION OF THE FRONTAL, NASAL, AND PART OF THE ETHMOID BONE—RECOVERY FROM BOTH AFFECTIONS.

By R. BEVERIDGE, M.B.,

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The following case, which occurred in the practice of Dr. George, of Keith, is interesting, as showing the great amount of mischief from which, even under very unfavourable circumstances, the system may recover.

J. S., aged 78, had been subject to epileptic fits for ten years prior to the occurrence of the following accident. These fits were periodic, occurring pretty regularly about once a fortnight, and generally in the morning; they presented the ordinary characters of epilepsy, and involved, as usual, complete unconsciousness of their occurrence, and entire insensibility during the attack. Throughout early and middle life she had been a strong, robust, healthy woman, and remained so till she had nearly attained the age of 70, when she one day fell over a precipice, and consequent upon this the epileptic fits appeared, and continued regularly as above mentioned.

On the morning of January 1, 1865, she was sitting, with spectacles on nose, reading in front of a large turf fire, when a fit came on, and she fell forwards into the fire. No one was beside—in fact, no one was in the house at the time, so that it is impossible to say how long she remained in this position, but it is scarcely conceivable that she did so more than a few seconds. It may be necessary to explain that it is a very common custom in cottagers' houses in this part of the country to use no grates for kitchen fires, but to pile the fuel, which is chiefly turf, on a large open hearth formed of flat slabs of stone, and raised only one or two inches above the level of the floor. In such a case as that of this poor woman, a person sitting in front of the fire would, if sufficiently near, fall face downwards into the middle of the burning mass of fuel, and such was the position in which she was found by her daughter, who chanced accidentally to enter the house. No alarm had been given, and no one knew what had occurred until the casual entrance of the daughter, who immediately ran to her mother, pulled her back from the fire, and, raising an alarm, obtained assistance. It was at first thought that the poor woman was dead, as no breathing or motion was noticeable; the head, face, and neck were perfectly black, the spectacle glasses were broken, and the metal of the frame was red hot. Dr. George was, however, immediately sent for, and on his arrival he found her lying perfectly insensible; skin cold; pulse barely perceptible; breathing weak, with now and again slight stertor; sphincters completely relaxed; the fæces and urine slowly draining away. The whole of the scalp was charred, as were also the eyes, lips, cheeks, and ears, which were completely black; and the tip of the tongue, which was protruded between the teeth, was also burned. External warmth was ordered to be freely applied, together with poultices to the burned parts.

In the afternoon of the same day she was again seen, and found in the same condition; no motion; skin still cold; tongue remaining protruded. On now examining the mouth, and clearing the ashes from the insides of the cheeks, the upper and lower incisors came readily away, and on examination were found to be all more or less charred.

2nd.—In the same state as yesterday; no motion; skin cold; sphincters relaxed; tongue protruded. External warmth by hot jars surrounding the body ordered to be perseveringly continued, and a strong injection of beef-tea to be thrown up the rectum twice a day, and retained for two hours by means of a cloth.

3rd, 4th, and 5th.—In the same state; the same treatment continued.

6th.—Motion beginning to return, as shown by slight movements of the limbs, but still no command over the sphincters. The tongue, cheeks, lips, etc., suppurating freely, and a large quantity of saliva issuing from the mouth, very fœtid from mixture with pus. The same treatment continued.

7th, 8th, 9th, 10th, 11th.—Same as on 6th.

12th.—Sensibility beginning to return. She now began to toss about, moaning considerably. She was able to swallow a little, and began to have some power over the sphincters. Tongue and cheeks cleaning. Same treatment continued.

13th-17th.—Sensibility still further returning On each of these days she was able to swallow milk, beef tea, and wine and water.

18th.—Consciousness returned. She began to speak, complained of no pain, and knew nothing of what had befallen her. Both eyes in a very putrid state.

19th-21st.—Insensibility completely gone. She became now very talkative, and on being informed of her condition, and of all that had happened, she was able to state correctly everything that had occurred on the morning of the 1st previous to the coming on of the fit.

22nd.—Both eyes fell out, leaving the os planum bare, as well as the nasal bones.

From this date she continued steadily to improve, taking her food with greater relish, and in larger quantity than before the accident. On May 7 the two ossa plana and the two nasal bones became loose, and were removed. On June 20 the whole external table of the frontal bone, down to and including the superciliary ridges, became slack, and was removed on the 24th. After the removal of these, granulations sprang up, and ultimately the whole was healed by September 1. After this she continued to enjoy better health than before the accident, and the epileptic fits never reappeared. She continued so till March 10, 1866, when she was seized with an attack of influenza, which proved fatal in ten days

This case, interesting generally as showing recovery from very extensive injury, presents also one or two points of importance with reference to pathology and physiology. The occurrence of epileptic fits as a consequence of a severe fall and injury of the head, and their removal by destruction and exfoliation of the bones forming the fore part of the cranium, point in all probability to mechanical pressure on the brain as their immediate cause; and although, unfortunately, no opportunity was allowed of verifying this by post-mortem examination, yet such an hypothesis seems so thoroughly consistent with the facts that, even in the absence of direct proof, it may be admitted as the most likely explanation. In this view these epileptic fits would come under the head of what Trousseau designates as "symptomatic epilepsy," in opposition to idiopathic—a distinction often overlooked in treating of the pathology of this disease, but one which it is essential to keep in view in any attempt to explain satisfactorily its essential nature, inasmuch as the two conditions refer to really different diseases, genuine or idiopathic epilepsy being, like hysteria, a disease apparently of the emotional system, while symptomatic epilepsy is the result of external mechanical irritation, such as by tumours, spiculæ of bone, and the like.

The favourable result of so severe a burn in this case was doubtless very much assisted by the absence of the depressing element of *pain*, an element which, by reacting on the whole nervous system, as well cerebro-spinal as ganglionic, is, there can be little doubt, frequently productive of very injurious results, thus converting what is primarily a warning and safeguard against external injury into an additional source of danger; in fact, it may fairly be doubted whether the comatose or semi-comatose state which, especially in children, so often follows severe burns, ought to be regarded, as it generally is, as injurious, or whether it ought not rather to be viewed in the light of a partial remedial effort of the system—an endeavour to eliminate, to some extent, one of the sources of danger. In this view, the treatment in these cases ought to be such as answered so well in the one under consideration—viz., to make no effort to remove the coma, but simply to support the system, leaving the nervous system to right itself when the proper time arrives.

This case is also instructive, as showing that the essential functions of circulation, respiration, and nutrition, and even the additional one of reparation, may be carried on for some time independent altogether of the cerebro-spinal nervous centres. Anatomical considerations show that the heart and vessels are chiefly dependent on the sympathetic system of nerves; but it is usually considered that the medulla oblongata is the great centre for the function of respiration, and that for it the sympathetic system plays but a subordinate part. Here, however, everything seemed to show that the cerebro-spinal centres were for a time completely in abeyance. The perfect immobility, not only of all the voluntary muscles, but of those which are wrought in part or whole by reflex action of the cord—such as those of the pharynx and tongue, as shown by the continued protrusion of the latter, and by the complete loss of the power of deglutition; those of the palate, as shown by the occasional stertor produced by the perfectly slack velum at times falling across the stream of air; and of the sphincters, as shown by their perfect flaccidity, offering not the least obstacle to the passing of the contents of the bladder and rectum—all tend to show that the cord in its whole length was inactive, so that it is difficult to understand how respiration, feeble as it was, was carried on, unless we admit that the sympathetic system (including the ganglia of the cerebro-spinal nerves) is associated with the cord in the carrying on of this function. The condition just described lasted five days, and it is interesting to note the order in which the functions returned. First, the large grey masses of the cord, constituting the bulgings for the nerves of the limbs, resumed their function on the sixth day, producing slight and involuntary movements of the extremities, gradually becoming more marked; but nothing more during five days longer, or till the twelfth day, when the functions of the medulla oblongata returned, as shown by the resumption of power over the muscles of the larynx, pharynx, palate, and tongue. This was immediately followed by the return to action of the whole of the cord, and the consequent gradual resumption of the action of the sphincters; but it was not till the eighteenth day that the cerebral hemispheres became again active, and consciousness returned. During all this time, however, the process of reparation was steadily going on, and by the time that the whole cerebro-spinal system had resumed its functions, those parts of the skin, etc., which had been least injured, were healed, and the rest had mostly got rid of their destroyed surface, and were granulating.

Thus it appears that to the two great subdivisions of the nervous system, the cerebro-spinal and the sympathetic, are assigned different functions with reference to the preservation and well-being of the system—to the former the warding off of danger from without, to the latter the functions of nutrition and reparation, with the others necessarily associated with these—and that, although the two systems usually work simultaneously, yet that the latter may carry on its functions independent of the former.

I am not aware of any recorded case of recovery after such an extensive destruction of parts as occurred here. The portion of the frontal bone that came away measured five inches and three-quarters in length in the mesial line by four inches and a half in breadth across the superciliary ridges; and if to this we add the exfoliation of parts of the ethmoid and of the nasal bones, it will be seen that, in addition to the extensive destruction of the soft parts, the damage done to the bones was very considerable. Dupuytren, in his *Clinique Chirurgicale*, mentions a case of recovery after extensive burn of the face, but there the exfoliation was limited to the malar bone and part of the zygomatic arch. He also mentions a case of epilepsy where, during the healing of a severe burn, the fits did not occur; but adds that, the patient having been lost sight of after leaving the Hospital, it was not known whether they returned or not. A case is also alluded to in the *Medical Times* of April, 1845, where in a young child destruction occurred of the ossified parts of the parietal and frontal bones, but the ultimate result is not mentioned.

REMARKABLE SUSCEPTIBILITY TO THE ACTION OF ATROPINE.

By MICHAEL THOMAS SADLER, jun., B.A. and M.D. Lond.

On March 23, 1868, in pursuing the treatment for hooping-cough recommended by Dr. Trousseau, I prescribed for a child aged 3 months a mixture containing $\frac{1}{60}$th of a grain of sulphate of atropine in a fluid drachm. The mother gave the child one teaspoonful early the next morning. In a few minutes the child turned a deep red, "like scarlet fever," over its face and the upper half of its body; the perspiration was checked, and the skin became hot and dry. This continued for five hours.

The next morning, at my request, she gave only half a teaspoonful; the same effect was produced, but only lasted for two hours.

On the third morning she only gave four drops, and this time without any effect. Wishing to ascertain the smallest dose which would produce a distinct physiological action, I desired that six drops might be given the next morning. This was done; the same redness appeared, but this time only lasted for half an hour.

By dropping from a similar bottle I have ascertained that

six of the largest drops which can be made are equal to fifteen minims, containing $\frac{1}{60}$th of a grain of sulphate of atropine.

I never heard or read of so small a dose of any drug producing a distinct physiological action, and should feel obliged if any of your readers would refer me to a parallel case. I should mention that no narcotism was produced even by the larger dose first given, and that there was a slight but not very decided improvement in the character and frequency of the fits of coughing.

Barnsley.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASE OF SEVERE BRAIN DISEASE WITH DOUBLE OPTIC NEURITIS.

(Under the care of Dr HUGHLINGS JACKSON.)

In the following case, from the condition of the optic discs, and from the history of severe pain in the head and convulsions, there was, to my mind, no doubt that there was extensive disease within the head—a tumour or coarse disease of some sort. I have now made many post-mortem examinations in support of the conclusion that optic neuritis is nearly always associated with *coarse* disease. I may refer to the *Royal London Ophthalmic Hospital Reports* for reports of some of them.

Now, as will be seen by the report of the case, the boy got into good general health. He became fat, and, except that he was blind, was well. Yet I still think, as I thought when he was admitted, that he has extensive disease within his head, probably of the left cerebral hemisphere above the lateral ventricle; it does not involve the motor tract, or there would be decided hemiplegia. The disease is above the ventricle, as both sides were weak, although one more than the other; and the disease there seated must be extensive, since small disease of the cerebral hemisphere, away from the motor tract, does not cause any local paralysis—I mean, does not cause paralysis by the amount of nerve tissue it destroys. Limited disease in the cerebral hemisphere—for instance, a small abscess—is not unfrequently *attended by* (epileptic) hemiplegia, but in such a case the palsy cannot depend directly on the gross disease—*e.g.*, on the small abscess. Now it is possible that the boy's palsy may have followed a convulsion due to small disease of the hemisphere, but if so the arm would probably have suffered more, and *both* legs would not have been weak. The fact that the palsy passed off does not negative the idea that it was caused by *destruction* of nerve tissue; for we know that hemiplegia the result of destruction of part of the corpus striatum by a clot will pass off. I do not lose sight of the possibility that there may be disease of one cerebellar hemisphere. In these cases—I suppose from the pressure the disease involving the cerebellum makes on other parts—both legs are often weak, but the weakness varies, often comes on and passes off suddenly, and there are frequently local palsies of cranial nerves.

The fact that a patient gets into robust general health after even an acute illness in which he has had severe pain in the head, optic neuritis, and convulsion, does not negative the diagnosis of coarse disease, such as tumour. I have recorded the case of a boy who got well (excepting for impaired sight from optic neuritis) for a time after such symptoms. (*Royal Lond. Ophth. Hosp. Reports*, vol. iv., part iv.). In the next number of that journal, I recorded his death from large intracranial cancer. Last year I had under my care in the Hospital a boy whose symptoms were closely like those of W. G. This boy had a deceptive recovery, but died, and a large hydatid cyst was found in the left cerebral hemisphere. This case will appear in the next (the fourth) volume of the *London Hospital Reports*.

Wherever there is optic neuritis or atrophy after it, the patient's case is to be seriously considered. He is liable to new symptoms, and especially to certain convulsive attacks which begin in one hand, one side of the face, or in one foot.

W. G., aged 17, December 16, 1867. A boy stunted probably from early rickets. He had a large head, but it had always been large. He had been ill twelve months, but he had never been very strong. During the whole twelve months he had severe pain in the head. He had lost sight eight weeks; of the left eye first. Nine months ago he began to suffer fits. He had about one a month until two months ago, when he had three in a fortnight, and they "took his sight away." He had no warning of them. It is said that they affected the right side of his face and right hand chiefly; he became insensible; his tongue was not bitten, and there was no foam. After the last he slept all day.

When I saw him he was quite blind. He was weak in both legs, but the right seemed the weaker, but the difference was slight. The right arm was very slightly affected. His speech was a little odd. He seemed to snatch his words, and ran some up—*e.g.* saying "lee" for "little." Still, the defect was so very trifling that scarcely any importance could be attached to it. His mother said, however, that his speech was a little different. He still suffered from pain in the head, but had had no fit since those three weeks ago.

His sense of smell was probably not impaired. He seemed too dull a boy to make accurate observations on. He said peppermint smelled of lemon.

Both optic discs white and slightly bluish. The veins were not enlarged, but the arteries were very small; the border of the disc was not much pigmented, and it was a little ill-defined. From the look of the discs I should say they had been inflamed more than six weeks. They were in what I should call the second stage of optic neuritis, a stage which much resembles what is called the "swollen disc." It is most important not to conclude that the ophthalmoscopical changes we first see are the first changes. The only way to avoid mistakes is to watch many cases of severe optic neuritis in their gradual progress to optic atrophy.

I gave him iodide of potassium, ten grains three times a day.

March 2.—His appetite was good, and he slept well at night, and walked about the ward in the day. He soon got free from all symptoms except the blindness, which will be permanent, and has gone out.

HOSPITAL SHIP "DREADNOUGHT."

THE SURGICAL DECK.

(*Concluded from page 366.*)

Diseases of Joints—Fractures—"Rope Accidents"—Frost-bites—Treatment of Ulcers—Injuries to the Head and Abdomen.

The destructive varieties of joint disease are treated in the *Dreadnought* by rest, tonics, and full diet. For ulceration of cartilage the actual cautery has been frequently applied with marked benefit. Excision has been performed in fitting cases—in the shoulder and elbow with good results; in the knee, on the other hand, with frequent termination in pyæmia. There is in the ship at the present time a good example of the beneficial results of excision of the shoulder. The man, who is now suffering from some obscure nervous disease allied to locomotor ataxy, was operated on by Mr. Busk in the year 1840. Since that date there has been no reappearance of the disease, and the movements of the upper limb have been free and efficient, although they are now becoming impaired by the progress of his present disease.

Cases of fracture, though no longer supplied by the large shipbuilding yards of Millwall and Greenwich, are yet sufficiently numerous and varied to present several points of clinical interest. In 1867 the number of cases of broken bones that were, from their severity or situation, admitted on to the Surgical deck, amounted to 35, which can be arranged as follows:—Lower jaw, 1 case; ribs, 2; humerus, 5 (3 simple, 2 compound); radius, 3 (2 simple, 1 compound); ulna, 1; radius and ulna, 2; pelvis, 1; femur, 6; patella, 1; tibia, 2; fibula, 3; tibia and fibula, 8. The fractures of the cranium are excluded from this list. For fractures of the bones of the upper extremity the ordinary lateral splints are used; for fractured shaft of the femur the long outside splint is used, and extension constantly exerted in order to prevent shortening. In cases of fractured leg, either in one or both bones, when the swelling has subsided sheets of pasteboard are moulded to the sides of the limb, and surrounded by turns of a glued bandage. In simple cases a cure is generally perfected at the usual period after the injury; when, however, the patient is scorbutic, union is sometimes retarded until the general condition is improved. Cases of fracture remaining ununited, and of false joint, have been

seldom observed among the patients applying to the *Dreadnought*. A very frequent evil after fractures, particularly where they have occurred during a long voyage, is faulty and unnatural union of the broken bones—a condition causing great deformity at the seat of the original injury, and generally associated with an exuberant formation of callus and contraction and stiffness of one or more neighbouring joints.

Fracture of both bones of the leg, associated with extensive contusion and laceration of the soft parts of the limb, but with the integument unbroken, is frequently presented among sailors as a consequence of very firm compression of the lower limb in a coil of a cable suddenly and forcibly stretched. These "rope accidents," as they are called, are in every instance very serious, and very frequently result in gangrene of the limb when the Surgeon is led by the sound appearance of the integument to overlook the injury to the vessels and other structures below, and to attempt conservative treatment. The following case, however, shows that amputation is not always the best policy, even in a very unfavourable condition of things, provided the subject of the accident be young and in good health. A lad about 14 years of age was admitted with a severe injury to the left leg in consequence of a "rope accident." On the outer side of the ankle was a large irregular wound through which the upper articular surface of the astragalus projected. The foot was turned inwards, and the lower end of the fibula fractured. The treatment to be carried out in a case so unpromising as this was naturally a matter for serious consideration; Mr. Rooke, however, decided upon carrying out the principle laid down by Sir Astley Cooper, that, in compound dislocation at the ankle, even when associated with extensive laceration of skin and soft parts, and with fractures of neighbouring bones, the Surgeon is entitled to give the patient a chance of retaining his foot. The limb was placed in a M'Intyre splint and swung in a cradle, and the patient, after many months' treatment, was at last discharged with his foot preserved, and, though firmly anchylosed at the ankle, capable of some slight movements, and serviceable for locomotion.

Good examples of frost-bite, or mortification of a part of the body from long exposure to cold, are presented in great numbers during the year. The subjects of this affection are generally negroes who have been ill fed during a long voyage, and have neglected, either from inexperience or from a want of sufficient clothing, to protect themselves from the cold and rough weather of the English Channel. The parts most commonly destroyed by cold in these barefooted Africans are the toes; the fingers are sometimes affected, but much less frequently. Mortification of the ears or nose is rare among seamen. The affected parts become cold, dry, hard, and insensible; the eschars are very fœtid, and between them and the surrounding inflamed skin a line of demarcation is formed, which extends rapidly through the thickness of the soft parts. The destruction in most instances is limited to the digits, but at times extends to the bases of the metatarsal bones, and even to the bones of the foot. This dry gangrene is treated by keeping the foot or hand warm and well covered by wool, and by allowing the dead parts to separate spontaneously. The tissues that remain attached for the longest time are the ligaments and fasciæ, and these are generally cut through. A florid and healthy ulcer is formed, which heals quickly by granulation, and forms the end of a very sightly and useful stump. The facts that cases of frost bite are admitted into the *Dreadnought* at all times of the year, and that these lesions affect the patients after prolonged exposure to heavy weather at sea, would seem to bear out the views of Larrey, who held that cold alone was not the determining cause, but that the mortification was due to cold and wet acting together.

The presence on the Surgical deck of many large open wounds and extensive scorbutic and other specific ulcers, furnishing fœtid and profuse discharges, necessitates frequent dressing and the use of antiseptic local applications. Chloride of zinc, creasote, carbolic acid, and the liquor carbonis detergens are in constant use as lotions and washes. Carbolic acid has also been used in cases of compound fracture with good results. In cases of sloughing sores and phagedænic ulceration the frequent syringing of the affected surface with tepid water, suspending carbolic acid or the liquor carbonis, acts very beneficially. In rapid sloughing, strong nitric acid is often applied as a caustic, not in the usual manner, by swabbing, but by means of small square pieces of lint, which are first soaked with the strong acid and then placed side by side in close contact with, and pressed upon, the surface of the gangrenous sore.

Severe injuries of the cephalic and abdominal viscera form, as may be readily imagined from their occupation, a large proportion of the accidents of seamen. Want of space prevents us from giving full details of several interesting cases of fractured cranium, and also of instances in which the patients recovered in spite of well-marked symptoms of fracture of the base and injury to the lower part of the encephalon. We will, however, before concluding our clinical remarks, give a short history of a remarkable case, in which the patient survived for seven days a severe injury to the liver. A sailor, 47 years of age, was on September 7 violently dashed against the bulwarks of his ship by a large wave. The blow made him gasp and struggle for breath, but, on the following day, when the ship arrived in the Thames, he felt much better, and before admission walked up a side ladder of the Hospital ship, a height of fifty feet. At first the only prominent symptoms of a severe injury were a deep and laboured respiration, and severe pain on pressure over the right hypochondrium. In the course of twenty-four hours peritonitis came on, the man's countenance anxious, and his skin yellow. On September 14 all the bad symptoms had increased in intensity, particularly the icteroid hue, and about half an hour before midnight the man died, having previously been delirious. On post-mortem examination, the intestines were found glued together by recent lymph, and the peritoneal cavity contained about three pints of blood mixed with serous fluid. The liver, which was brawny and presented a good specimen of the lardaceous or amyloid disease, was extensively and deeply lacerated along the upper surface and posterior border of the right lobe. A large clot of blood had formed between the upper surface of the viscus and the diaphragm.

The deaths on the Surgical deck during the year 1867 amounted to sixteen. Of these, seven were due to pyæmia and to sloughing sores, the two affections having been associated in most instances. Of these seven deaths, two followed amputations of the thigh, two amputations of the leg, one passive dilatation of urethral stricture, one an injury of the thigh, and one occurred after an operation for the removal of hæmorrhoids. The sloughing sore, which in connexion with pyæmia has so large a share in the mortality of the Surgical deck, is a peculiar form of rapid and acute ulceration in which the integument over a limited space is converted into a moist black eschar, and the connective tissue and fascia beneath deeply and extensively destroyed. As in Hospitals on shore phlegmonous erysipelas so frequently prevails before and during an outbreak of pyæmia, so on the *Dreadnought* are sloughing ulceration and putrid infection allied together. As erysipelas, in its simple and phlegmonous forms, is a very rare affection among the inmates of the *Dreadnought*, it would seem as if the sloughing sore were substituted in the scorbutic and syphilitic sailor for the phlegmonous inflammation which attacks the resident on the land. Whether the difference of type in these local lesions be really due to the constitution of the individual, or, on the other hand, to some local hygienic condition, is an interesting problem which, we trust, the results of late reforms in the mercantile marine and the early removal of the Seaman's Hospital Society to a building on shore will enable us to solve.

ELECTION OF A SENATOR IN THE QUEEN'S UNIVERSITY. —On the 14th inst. a meeting of convocation of the Queen's University will be held in Dublin Castle for the election of a Senator. Dr. MacCormac is the only candidate nominated, and will necessarily be chosen. We think the selection an extremely judicious one. Dr. MacCormac is not only distinguished as a Physician, but is known to take a keen interest in questions of Irish education, and, as the Medical section of Senate wanted strengthening, no more fitting graduate could have been found to fill the vacant place.

ROYAL INSTITUTION OF GREAT BRITAIN. — The general monthly meeting was held on Monday, April 6, Colonel P. J. Yorke, F.R.S., Vice-President, in the chair. Richard Melville Beachcroft, Esq., Matthew Bolton, Esq., Mrs. Cattley, Roger Eykyn, Esq., M.P., William Millar, Esq., Charles Hy. Mills, Esq., Donald Nicoll, Esq., Charles Pemberton, Esq., Archibald Gilchrist Potter, Esq., Sir George R. Prescott, Bart., Sir Henry Thompson, F.R.C.S., were elected members of the Royal Institution. The special thanks of the members were returned for the following additions to "the Donation Fund for the Promotion of Experimental Researches":—T. W. Helps, Esq., third donation, £10. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

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Medical Times and Gazette.

SATURDAY, APRIL 11, 1868.

THE WATER-PROPAGATION THEORY OF CHOLERA.

In our impression of March 28 we reported the proceedings of the last monthly meeting of the Association of London Medical Officers of Health, whereat a discussion was initiated by a paper from Dr. Letheby on the "Theory of Choleraic Propagation in reference to the Epidemic in East London of 1866," as started first of all by the Registrar-General, and confirmed in its chief characteristics by the subsequent investigation and report of Mr. J. Netten Radcliffe to the Medical Officer of the Privy Council.

We need hardly say that the gentlemen entrusted with the functions of health officers in the several districts of the metropolis constitute a body who, from their professional and social position, are eminently interested in a question involving the loss of nearly 4000 lives, or a rateable proportion of 6·9 on every thousand of population, concentrated in one part of London within certain well-defined limits. It is unnecessary that we should go into the statistics of the epidemic so as to show its remarkable localisation, not only because they have been stated very fully in our columns on previous occasions, but for the simple reason that no question has been raised upon that point, which is, in fact, conceded by Dr. Letheby and all who have written upon the subject. But as to the cause of that localisation, we entertain a strong opinion upon the need for the Health Officers to be reminded of certain considerations very pertinent to the issue involved in determining whether or not the choleraic influence was diffused through the medium of the water-supply, as hypothetically suggested by Dr. Farr, affirmed by Mr. Radcliffe, and, at any rate, supported by inductive reasoning upon the admissions of the officers of the company supplying the implicated water.

Stated briefly, the hypothesis put forward by Dr. Farr at a very early stage of the epidemic was that just about a given time the East London Water Company, from some cause or other, distributed an unknown quantity of unfiltered water, or of water drawn from reservoirs so situated as to be subject to contamination from the polluted tidal waters of the Lea. It was known that cholera was, and had been, raging on the Continent, and that vessels, having in all probability cases of incipient or declared cholera on board, came into port either within the area of infection or within the tidal influence which would diffuse whatever choleraic germs contained in the dejecta of the sick had been cast into the water, to an unknown extent throughout the limits of that tidal influence. Starting from this point, the chain of inference went on to include the possible incorporation (either by percolation or direct admission) of such cholera-tainted water with the ordinary supply of the East London districts, and thence the assumption was arrived at that in this way the localisation of the epidemic *might* be accounted for. Dr. Farr's theory was, it is most important to remember, propounded at the very beginning of the "explosion"—to use his own expressive phrase—in the teeth of a public denial of possible contamination on the part of the water company's engineer, and before a single one of the now known facts inculpatory of the water was established. Well, the most able opponents of the water-propagation theory must admit that the evidence of Mr. Greaves, given after the epidemic was over, in December, before the Rivers Commission, concedes *in toto* the cardinal assumption of Dr. Farr as to the distribution of polluted water; and when that has been said all that remains on either side of the question is, and must remain, pure hypothesis.

The investigation of Mr. Radcliffe, if it do not establish as a fact the direct and positive admission of choleraic matter into the Lea from the two undoubted cases of Asiatic cholera occurring in Priory-street, Bromley, on June 26, at least supplies evidence in proof which it is impossible to gainsay; therefore the advocates of the water theory have an advantage in argument at the outset—that whereas they can point to sources of *probable* pollution, their opponents are constrained to rely on the merely *negative* assertion of "absence of proof."

But the essential feature in the objections which have been raised against the hypothesis of water-propagation of cholera, lies in the exceptions advanced in reference to the exemption of persons and places within the operation of the assumed morbific influence; and it is mainly in the hope of being able to disentangle this part of the question from some at least of the mystification with which it has been ingeniously encumbered that we have been induced to offer these remarks.

Say the defenders of the water company, "On the supposition that the water was charged with choleraic matter, why did it not produce cholera everywhere that it was supplied, and in every man, woman, or child who drank thereof?" The fallacy implied in this question—which, by the way, is always put forth as though it were perfectly unanswerable—lies in the assumption that choleraic matter is like alcohol or arsenic, which, being soluble in water, becomes by admixture so thoroughly incorporated with it as to be capable of dilution indefinitely, with a relative diminution of its original strength. But this misrepresents altogether the results of scientific investigation into the nature and quality of choleraic excreta, which are relied upon in support of the hypothesis of the propagation of cholera through the medium of water. Take, for example, the following extract from a report lately published by Dr. Letheby on the cholera epidemic of 1866:—

"Observation, indeed, in every part of the world leads to the conclusion that they [the alvine discharges of the sick] are the sole agents in propagating the disease, but the exact element or *materies morbi* which is thus concerned in communicating it is not known. The researches of Dr. Parkes in this country, Dr. Thome of Cologne, Professor Klob of Vienna, and Professor Hallier of Jena, have shown that the alvine discharges of persons sick of cholera contain *myriads of low cryptogamic organisms of the nature of a minute microscopic fungus, which is capable of rapid growth and multiplication* within the human intestine, and which feeds on and destroys the mucous coat of the bowel. It would seem, too, from the experiments of Dr. Thiersch of Munich, and of Dr. Sanderson of London, on mice fed with paper saturated with choleraic matter, that the alvine discharges are *not infectious in their fresh condition*, but that *after the fourth day, and up perhaps to the eighteenth, they possess infectious power.*"

Still further, there is the doctrine of Dr. Snow, the father of the water-theory:—

"An objection that has repeatedly been made to the propagation of cholera through the medium of water is that every one who drinks of the water ought to have the disease at once. This objection arises from mistaking the department of science

to which the communication of cholera belongs, and looking on it as a question of chemistry instead of one of natural history, as it undoubtedly is. It cannot be supposed that a morbid poison which has the property, under suitable circumstances, of reproducing its kind should be capable of being diluted indefinitely in water, like a chemical salt, and therefore it is not to be presumed that the cholera poison would be equally diffused through every particle of the water. *The eggs of the tape-worm must undoubtedly pass down the sewers into the Thames, but it by no means follows that everybody who drinks a glass of the water should swallow one of the eggs.* As regards the morbid matter of cholera, many other circumstances besides the quantity of it which is present in a river at different periods of the epidemic must influence the chances of its being swallowed, such as its remaining in a butt or other vessel till it is decomposed or devoured by animalcules, or its merely settling to the bottom and remaining there. In the case of the pump-well in Broad-street, Golden-square, if the cholera poison was contained in the minute whitish flocculi visible on close inspection to the naked eye, some persons might drink of the water without taking any, as they soon settled to the bottom of the vessel."(a)

In the discussion which has yet to ensue as to the localisation of the epidemic of 1866, we submit for the attentive consideration of the Health Officers the extracts we have quoted above: they are bound to make themselves thoroughly acquainted with the theory which at their next meeting they will most likely be asked to condemn; and they will do well to consider whether they are justified, as men having more than an elementary knowledge of science, in following blindly the lead of those who are striving to make them believe that a fungus endowed with the faculty of self-reproduction can, under any circumstances of its commixture with water, be taken up, dissolved, and diluted in the same manner that alcohol would be.

VENTILATION *v.* CUBIC SPACE.

It has been the misfortune of the recent workhouse reform movement that many of its most strenuous supporters have been deficient in a knowledge of those scientific principles upon which a proper solution of the "space problem" must ultimately depend. An infinite degree of eloquence has been lavished upon the subject of pauper suffering, and the "newspaper paragraph" has been employed in all its force; but after all, as we think we shall prove, the issue remains undecided. A battle-cry of "cubic space" has been raised, and converts to the new doctrine have been enlisted under this banner; a few unproven assertions have been published, and at length, as too often occurs, the public has acquiesced in the new views without giving them impartial consideration, and in the plenitude of its charitable enthusiasm. But, as we have before pointed out, this proposal to erect a series of colossal metropolitan infirmaries is one of no mean gravity, and its adoption would involve a vast expenditure of public money and a heavy taxation of London ratepayers. Did we consider that the case was one in which change was imperatively demanded, we should hesitate to urge this objection, but it really appears to us that the indictment of the workhouse philanthropists is hardly proved, and, even admitting their charge, that the arguments urged against the employment of the existing infirmaries are not only exaggerated in fact, but are absolutely without a scientific basis.

Without dwelling upon the statement of the "cubic space" commissioners, that the mortality of the workhouse infirmaries is, as a rule, lower than that of corresponding public charities—a statement which can hardly be questioned—we may pause to consider what are the meaning and justification of this "cubic-space" shibboleth which has become so fashionable. The examination of a certain number of wards in the workhouse infirmaries has demonstrated that in these wards there has been overcrowding, or, in other words, that the supply of air has been deficient. This result we are by no means disposed to doubt. It is extremely likely that the air in the workhouse wards is impure, but what is the remedy which the philanthropists demand? Increased "cubic space." This is their panacea, and on what grounds they suggest it it is difficult to see, for the evidence of the experts has shown that it is no remedy at all. True, the idea is a popular one but then scientific reformers should have been superior to popular prejudices. The notion that increased space provides for purity of atmosphere is true in a limited sense, but it is so under conditions totally different from those of the workhouse wards. It is true of rooms occupied temporarily, but is inapplicable to wards constantly tenanted by a definite number of patients. The difference hinges on an interesting point of science, which has been so well laid down by Professor Donkin, F.R.S.,(a) that we cannot refrain from giving a brief explanation of it. It is now generally acknowledged that the products of respiration, like other gases, obey rigidly the law of diffusion, and that even a single cubic foot of air exhaled from the lungs almost immediately spreads itself through the atmosphere of a room, and is, in fact, diluted in the surrounding air. Supposing, then, a man occupying a room of definite size, it is evident that, unless as much fresh air is admitted into the room during each respiration as that polluted by the lungs during the same period, the atmosphere of the room must continue to be more and more saturated with poisonous products. If the room be a large one, the time taken to saturate its atmosphere will be greater than if it be a small one; and if its size be vast, and it is occupied but *for a limited period*, it will be necessary to introduce per hour a less amount of air than would otherwise be requisite. Under such circumstances—intermittent occupation—cubic space is an important element. The large room has not become poisonous at the time its tenant leaves it, and before it is again required for occupation, *diffusion* has purified its atmosphere for the next inhabitant. This is the case imagined by the workhouse reformers, and applied by an absurdly false analogy to wards constantly inhabited by a definite number of individuals. This is the blunder involved in the cry for "cubic space" which seems to have fastened itself upon the public. If the well-intentioned but ill-qualified persons who initiated it will take the trouble to go into the mathematical examination of the point, they will find that, diffusion admitted, what Professor Donkin alleges is rigidly correct—that "the degree of purity of a room would ultimately depend in no way on the size of the room, but solely on these two things—(*a*) the rate at which the emanations are produced, and (*b*) the rate at which the fresh air is admitted."

We contend that it is on this rule alone that anything can be effected to ameliorate the condition of workhouse wards; and that the whole question is one of improved methods of ventilation, and not of costly and elaborate erections, which, without effective provision for air entrance and exit, must prove eventually as unsatisfactory as those now so much despised. It may be urged by our opponents that at least in one respect "space" is of importance—that it admits of the introduction of air without the production of draughts—and this one point we in a qualified sense concede. It is certainly one of the advantages of increased cubic space that it diminishes the liability to draughts, but then there is the counterbalancing disadvantage of the difficulty of warming, and there is the serious and yet unanswered question as to what is the limit of space per head through which the requisite amount of air can be introduced without injury to the patient.

On the whole, it is evident that Dr. Edward Smith was justified in questioning the advisability of involving the country in the expenditure of large sums for ends which may

(a) Snow "On Cholera," pp. 112-13.

(a) "Report of the Committee appointed to consider the Cubic Space of Metropolitan Workhouse, 1867."

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be equally well accomplished by simpler and more scientific means than those suggested by Mr. Hart and his party. It seems irritating enough to see an array of authorities in support of the hypothesis that 1000 cubic feet of space is requisite for each pauper, but with the unprejudiced this method of argument fails to find any sympathy. It cannot be denied as a principle that in wards constantly occupied space has nothing whatever to do with purity of atmosphere. What we want, then, is a series of experiments on the methods of introducing air into Hospitals in order to demonstrate the minimum of space consistent with the introduction, without injurious draughts, of the quantity of air (about 3000 cubic feet) required per hour for each patient. Till this is conclusively established—and we certainly are as yet without the data for a definitive law—all efforts to construct efficient wards must be attended with unnecessary outlay, and be productive of undesirable consequences. What is wanted is a commission of scientific men to inquire into the ventilation of Hospitals in relation to space, and to provide us with the means of regulating the entrance of air with reference to velocity of current, density and temperature of outer atmosphere, and equable distribution. Till this is achieved it will be impossible to pronounce an opinion as to the cubic space of our infirmaries "of the future," unless, indeed, we should be betrayed into a process of reasoning more honourable to our philanthropy than creditable to our knowledge of physics. Under these circumstances, we implore the too zealous promoters of the workhouse improvement movement to stay their hands or their less ruly members, and protect the country from an extravagant expenditure which is now urged upon it in what seems to us a spirit of perverted charity and reactionary benevolence.

PRISONS, PRISONERS, AND PUNISHMENTS.

In this week's number we begin a few articles in which the existing state of our prisons is described. The subject of punishment is one of immense importance to society, and one on which Medical opinion may well be brought to bear, because the theory of punishment belongs to the whole history of the mental and physical character of man, and because punishment ill devised acts perniciously on the mind and body. Our contributor's first essay is devoted to the prisons in which debtors are confined. Imprisonment for debt—soon, we hope, to be abolished—is, however, not so much punishment as a relic of times when slavery was an institution, and when a man satisfied with his body the claim which his goods and chattels were inadequate to discharge.

THE WEEK.

TOPICS OF THE DAY.

The Medical Practitioners (Colonies) Bill, or, as it is to be called, "The Medical Act Amendment Act, 1868," which has already passed the second reading in the House of Lords, is not a measure of small importance, for it repeals the thirty-first section of the Medical Act of 1858, which gives to all Practitioners whose names are on the Imperial Register the right to practise and recover charges in any part of her Majesty's dominions. The new Act deprives the registered Practitioner of this liberty as far as the colonies are concerned, and makes the right to practise entirely dependent upon the will and enactments of the Colonial Legislature. The fourth clause runs thus:—"Subject to any laws from time to time made by any Colonial Legislature, every person registered under the said Medical Act (of 1858) shall be entitled, according to his qualification or qualifications, to practise Medicine or Surgery, or Medicine and Surgery, as the case may be, in any part of her Majesty's dominions, and to demand and recover," etc. Clause 4 further provides that "the said Medical Act (of 1858) shall be construed as if this enactment had originally been contained in the said thirty-first section, in place of the enactment hereby repealed." Clause 5 enacts that "nothing in this Act contained shall enable any Colonial Legislature to pass any law affecting any Medical Practitioner appointed to any office in the colonies in the gift of her Majesty's Government, or of any member thereof." The term "colony" is made to include any of her Majesty's possessions abroad in which there exists a Legislature (or authority, other than the Imperial Parliament, or her Majesty in Council, competent to make laws), except the Channel Islands and the Isle of Man. On the face of this new Act there is undoubtedly a certain amount of injustice. Medical Practitioners who have placed their names on the Imperial Register with the intention of practising in the colonies may reasonably complain that they have been deprived of the privileges which they bought when they paid their money in Soho-square. It is evident, therefore, that this Act should be in no degree retrospective, but that every person whose name is on the Imperial Register at the time of its receiving the Royal assent should have the right secured to him of practising in any part of the British empire. As a prospective Act, we cannot find much fault with it. It is the natural tendency of colonial institutions to become in time independent of those of the mother country, and if the British registered Practitioner is not permitted to exercise his Profession in the colonies without examination by or payment to the local boards, there can be no pretext for admitting the possessors of colonial degrees to the Imperial Register without subjecting them to some further proof of their fitness. Should this Act pass, the relations of the Medical Council to the colonial Universities and examining boards will be greatly simplified. There will, in fact, be no reason for placing these bodies in a different category from that of the American and European Universities and Colleges.

The chances of passing an Amendment Act which shall deal with the glaring defects in the home working of the Medical Act of 1858, appear now to be bound up with the fate of the Government. We believe that Mr. G. Hardy will be ready to support the Bill approved by the Medical Council if he remain in office. But, after the vote on the Irish Church question, the real prospect of passing a satisfactory measure this session looks shadowy indeed.

Mr. Rumsey, whose attention to all that relates to public health is indefatigable, has called public notice to certain defects in Mr. M'Cullagh Torrens's Artisans' Dwellings Bill; inasmuch as the Bill throws on a mere inspector of nuisances, and not on a Medical man, the responsibility of deciding as to the wholesomeness or unwholesomeness of habitations. The Medical Officers of Health ought to be on the *qui vive*.

Dr. Alderson was re-elected President of the Royal College of Physicians on Monday, the 6th instant, by a handsome number of votes over the two-thirds necessary. Dr. Frederic Farre was elected to the office of Treasurer, vacant by the death of Dr. Page.

Birmingham is just now taking the lead in matters of Medical reform. The Profession there, after their successful campaign against the benefit clubs, are now undertaking a crusade against the even greater evil of gratuitous Medical services. When we speak, however, of the evil of gratuitous Medical services, we ought to guard ourselves. We do not refer to the gratuitous services rendered by Medical Practitioners to our larger Hospitals, where a position on the staff is not only indirectly paid by lectureships and pupils' fees, but is also an almost certain passport to lucrative practice. Nor do we refer to the private benevolence, which we should regret much if the members of our Profession were not as ready as heretofore to bestow upon those who appeal to them for help. But we refer to the indiscriminate spoliation through the machinery of Dispensaries and similar institutions which the Profession has too long voluntarily

courted. Mr. Gamgee, indeed, has commenced in the *Birmingham Daily Post* a war against all non-paid Medical services. On this point we can only reassert our belief that, however the system has been abused, the existence of a certain amount of honorary appointments is necessary to the existence of Medicine as a profession, in contradistinction to Medicine as a mere means of getting money. But we should be rejoiced to see the abolition of abuses which have impoverished the rank and file of the Profession, and have imperfectly supplemented the operations of Poor-law Medical relief, whilst they have added nothing to Medical science. Recently the Medical officers of the Birmingham Dispensary, an institution possessing a considerable reserve of property, applied to the governing body for honoraria in consideration of their services. This was declined on various pleas, one of which was that if the Committee voted honoraria to the Medical officers they might, on the same ground, vote fees to themselves for attending at board meetings!—thus coolly and deliberately placing their own services as committeemen on the same level as the skill and science of the Physicians and Surgeons—and in consequence the Medical staff have *en masse* resigned. The Committee now, however, propose, in case they cannot obtain the services of an honorary staff, the appointment of a paid Resident Physician, and of two Consulting Officers, a Physician and Surgeon, who are also to be paid for their services. They are, therefore, however reluctantly, obliged to recognise the principle of remuneration, although their previous refusal to do so has deprived their institution of the services of a most valuable staff.

From a circular recently issued by the Medico-Political Association of Great Britain and Ireland we are glad to see that the Association have modified their programme, in conformity with some remarks which we ventured to make in our issue of January 4. Instead of attempting the abolition of all unpaid Hospital Medical service—an attempt in which we think they would assuredly fail—they propose to obtain "a modification of the present Hospital system, as regards its relations to the Medical Profession, which relations," they add, "at present press unjustly upon the General Practitioners of the kingdom, not only through the abuse of Medical charities by the public, but also by a universal acceptation of a principle of entirely unpaid Medical labour." The other points advocated by the Association are the representation of the General Practitioner in the Medical Council, and the annihilation of unpaid and underpaid Government Medical labour. Such a programme ought to attract a large amount of Professional support.

Dr. Gibb, of Newcastle, has addressed a letter to the Governors of the Newcastle-upon-Tyne Infirmary, calling attention to the prevalence of Hospital gangrene in the new wards on the low flat of the Hospital. He points out that, in comparison with that of other Hospitals, the system of nursing at the Newcastle Infirmary is very defective, and he argues that the prevalence of disease is in some measure attributable to it. Certainly the allowance of one nurse to twenty Surgical beds, many of them allotted to accidents, is not very likely to insure the well-being of the patients or to promote their recovery. Dr. Gibb says that one night a few months ago, in a ward to which there was no night-nurse appointed, a man whose arm had been amputated nearly bled to death.

The description by a Medical witness, in the case of Gresley *v.* the Midland Railway, of a condition of tongue as "the commercial traveller's," and the ascription of that condition to hard drinking as its cause, have, as might be expected, raised an indignant protest on the part of the order of the road. We certainly think it unfair to brand by a quasi-scientific description a set of men who, we believe, are not more constant or devout worshippers of Bacchus than other classes who lead a life of less temptation. But be this as it may, we object to taking nosological terms from the occupations of patients. Such terms as painter's colic, housemaid's knee, and clergyman's sore throat are simply unscientific, because they do not necessarily embrace all cases of the several diseases; but if they imply a stigma upon a whole class they are still more indefensible.

THE ASSISTANT-PHYSICIANS TO KING'S COLLEGE HOSPITAL.

King's College, London, has been so prolific in rearing good men that it not only supplies rival institutions with teachers and operators, but can afford to weed out some of the best of the rising men of the day, and leave them out in the cold. Anstie, Headland, Salter, Heath are instances of distinguished men transplanted to other schools, and now Drs. John Harley and Conway Evans are banished from the nest of their *alma mater* to seek appointments elsewhere. Instead of four or five Assistant-Physicians appointed for a limited time, but capable of re-election, the authorities have decided on a more symmetrical system, and have elected Drs. Morris Tonge and Duffin as permanent Assistant-Physicians to balance the two Assistant-Surgeons, leaving unattached Drs. John Harley and Conway Evans, who had held the appointment ten years. Both the permanently appointed men are too well known for their accomplishments and diligence to render any commendation necessary; but it does seem a little hard that whilst the whole Profession is unanimously praising the critical and experimental acumen displayed by Dr. John Harley in his lately delivered lectures, his connexion with his own school should be thus suddenly cut short. Just at the present moment, too, the out-patient system of Hospitals is attracting attention as one of the shams and about to be one of the scandals of the day. Crowds of patients flock in on the wearied Assistant-Physicians, who examine and prescribe for fifty per hour. Either the number of patients must be cut down, or the number of Assistant-Physicians increased, if the out-patient department is to deserve a place in a scientific and charitable institution.

ACTION OF THE NERVES ON INTESTINAL SECRETION.

There are many physiologists who consider that increased intestinal secretion is the consequence of diminished rather than of enhanced nervous action. The problem is one of high scientific interest, and, as in the case of cholera, of grave pathological importance. An experiment of a crucial character, which has recently been attempted by M. Moreau, deserves, therefore, to be recorded. M. Moreau selected for his inquiry a dog, the intestine of which he had previously ascertained to be absolutely empty, and he then proceeded as follows:—Having chloroformed the animal, he made an incision in the abdominal wall along the *linea alba*, and, moving aside the *epiploon*, he drew out a fold of intestine, and divided it, by means of four ligatures of caoutchouc, into three separate constrictions. He next carefully divided the nerves proceeding to the middle fold, and then he replaced the gut and brought the edges of the abdominal wound together. The dog was killed several hours subsequently, and carefully examined. Of the three artificial compartments of the intestine, the middle one, which had been deprived of nervous influence, was found filled with liquid matter; the other two were dilated and completely dry! Further research has, M. Moreau alleges, fully borne out these results, and the experiment has been performed before the Société de Biologie with equally conclusive results. It must not be forgotten that in all experiments in vivisection there are numerous and unavoidable sources of error which render induction a difficult and hardly satisfactory process. So far, however, as M. Moreau's inquiries go, they indicate a law by no means antagonistic to the inferences derived from clinical experience, and they certainly throw light on one of the most serious, and assuredly not the least obscure, points in the pathology of the alimentary canal.

OSCILLATING ORGANIC MOLECULES.

Apropos of the question of animal ferments which is now receiving so much attention and eliciting a good deal of valuable discussion, we may give a brief *résumé* of a paper which has just been communicated to the French Academy by M. Ricque de Monchy, and which expresses certain startling conclusions. The author of this memoir has been investigating the septic qualities of those minute particles in the seeds of plants which are styled *mobile globules*, and he alleges to have made the discovery that these granules are not confined to plants, and that they are "organisms having an energetic action like that of ferments on some of the substances with which they come in contact in their normal condition." He has examined the mobile globules of the following tissues—of the cambium of the willow, of the pollen grains of plants, of the juices of insects, of the eggs of the silk-worm, of the blood of the spider, and of the choroid coat of the eye. He has studied the action of the granules prepared from each of these substances on starch, cane-sugar, and gelatine, and in every instance he has observed that more or less complete fermentation took place. It might occur as an objection that ferments may have been derived from the atmosphere in sufficient quantity to account for the results. But the author states that his experiments were conducted with flasks hermetically sealed, and that the sugar and gelatine employed were chemically pure. The researches have been carried on steadily since May, 1866, and the results throughout have been uniform. Admitting the first conclusion as to the septic qualities of these molecular bodies, the author's second proposition is of interest. He believes that the function of these granules is to aid in ripening fruits and to elaborate certain materials for the nutrition and incessant regeneration of the tissues. Finally, M. de Monchy remarks, "The oscillating granules are the agents in a series of creations subservient to the formation of the tissues."

DR. BURDON SANDERSON ON THE INOCULATION OF TUBERCLE.

Tuesday evening at the Pathological Society was signalised by one of the most valuable communications to which we have ever listened, made by Dr. Burdon Sanderson, and giving an account of the results of his experiments conducted during many months past on the inoculability of tubercle. Our readers will probably remember that we gave them an account of what had been done in this way some months ago, but since that time several important advances have been made. Even then it had been proved that substances other than tubercle had been found capable of giving rise to caseous matter in the lungs and other organs; but since that date Lebert has distinctly shown that such deposits can be produced by inorganic substances introduced beneath the skins of rodent animals. Now, Dr. Burdon Sanderson has gone a step further, and shown that simple mechanical irritation—such as that of a seton—is capable of producing similar effects. To give rise to internal deposits of a tuberculous kind in this way, it is necessary that the irritation be not too strong, otherwise the animal might die too soon; nor too weak, for it is necessary that it should last about a week. To produce the peculiar deposits, it is in all cases necessary that a certain amount of local induration and suppuration should take place at the spot where the irritation has been induced, which in turn are followed by secondary abscesses and indurations in their neighbourhood. In the walls of these abscesses may be traced all varieties of structures, from the spherical corpuscles of the pyogenic membrane to the fibres of the subcutaneous connective tissue. Bands of induration run between the abscesses. The surrounding lymphatics are next invaded. They become subject to a hyperplasia ending in caseous degeneration, with cretification or softening. Internally the organs specially affected are the lungs, liver, spleen, and peritoneum, the meninges being strangely exempted. In the lungs are formed the well-known iron-grey nodules, consisting partly of new deposit, partly of modified lung tissue, the whole being infiltrated with pigment. The liver, again, in the guinea-pig becomes enormously enlarged, but in shape resembling the cirrhosed organ, and contains two structures—the ordinary glandular textures around the hepatic veins, and a new deposit surrounding the portal vein and bile ducts. This consists of a structureless stroma, with loculi containing nuclei, and presenting an aspect identical with that of the lymphatic glands, so that Dr. B. Sanderson proposed for it the name of adenoid tissue. The spleen also becomes enlarged by the formation of deposits similar to those in the liver, whilst surrounding the walls of the larger mesenteric arteries are seen little deposits of the same character. It is impossible to overrate the value of Dr. Sanderson's painstaking inquiries. He is not a man to be led away by a desire for mere notoriety, and to propound his doctrines before they have been fully and carefully verified. Pre-eminently of a philosophic mood, Dr. Sanderson is one whose words justly have weight in the Medical community. Men know that they can trust him; hence it is, therefore, that we attach such an importance to his researches. Had they been conducted by a less trustworthy and a less impartial investigator, we might have shrugged our shoulders and said nothing; now they strike us with a conviction of their thoroughly trustworthy character. Dr. Sanderson deserves all praise for the accomplishment of such a laborious undertaking.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

The Arachnida are arranged in the following groups, according to the characters of their respiratory organs:—1. The *Pulmonata*, of which the scorpion is an example; in these the respiratory organs consist entirely of lung-sacs. 2. The *Amphipneusta*, to which the spiders proper belong. These breathe in two ways, both aerial—viz., by pulmonary sacs and by tracheæ. These tracheæ sometimes open on the under surface of the body, near the anus. They differ from the tracheæ of insects in not having a spiral thread coiled up inside them, and in not branching dichotomously, but dividing into leashes. 3. *Trachearia*, including the mites and ticks; the respiratory organs consisting of tracheæ only.

This is a convenient and comprehensive mode of division. There remain, however, certain aberrant forms, probably related to the ticks and mites. They are all parasites. These are—4. The Pycnogonida; 5. The Arctisca or Tardigrada; 6. The Pentastomata (found in the frontal sinuses of the carnivora); 7. The Linguatulideæ, also parasites.

In reviewing the changes undergone within the limits of this class by the animals which belong to it, there will be observed in the first place, great diversity in the form of the body. In the scorpion, for example, there are the typical number of somites—viz., twenty; there is a distinct division between the cephalo-thorax and the abdomen, and the abdomen is composed of a number of perfectly distinct articulated segments. In spiders we find a great difference in the structure of the body; for, although the cephalo-thorax is the same, the abdomen is very different; it is rounded in form, and is not divided into distinct or articulated segments. Amongst the Trachearia we find considerable diversities of form. In some the abdomen is soft and rounded; in mites and ticks it is of considerable size; but in the itch mite, as it is improperly called (Sarcoptes), the abdomen is exceedingly small. In another genus we find the abdomen greatly elongated. In some of the Tardigrada or Arctisca, the abdomen is altogether rudimentary, and this is also the case with many of the Pycnogonidæ. In the parasitic Pentastomum, the abdomen is very much developed, and the whole creature has the appearance of an intestinal worm. Many of these modifications are in accordance with their habits of life, some of them being

free, as the scorpions and spiders, whilst others are parasitic, generally on the external surface of animals.

The Sarcoptes is more particularly parasitic, as it burrows in the human skin, and brings forth its young there. The genera Linguatula and Pentastomum are the most decidedly parasitic, and these were once taken for intestinal worms; but by the study of their development their precise nature is ascertained.

Many variations, too, are seen in the character of the appendages. In the spiders the antennæ are no longer chelate as in the scorpion, but subchelate, having a form something like that of a clasp-knife, the extremity of which is perforated by a minute aperture, the orifice of the duct of a poison gland. The palpi, those limbs which are always held up by the spider, correspond to the great claws of the scorpion; they are a development of the palpi of the mandibles. There is a curious difference in the two sexes of the spiders in the terminal joint of the palpi. In the male, this joint is converted into a kind of box, which, as we shall see, plays an important part in the function of reproduction. As we descend, we discover a tendency to a disappearance of the antennæ and maxillary pulpi. In the Tardigrades the anterior limbs almost disappear or are mere tubercles, while in Pentastomum all that remain of limbs are two pairs of hooks, which are capable of being retracted into the mouth. In this series, as in the crustacean series, we observe that, as the creatures become more and more parasitic, they lose their limbs, and become more and more vermiform. Next as to the *alimentary* system. The buccal cavity is in all cases suctorial, and there never exist true jaws. But the alimentary canal varies much; it may be merely a straight simple tube, as in the scorpion, but in certain Arachnida, in the spiders and the greater part of the Pycnogonidæ, the digestive cavity is furnished with great cæcal processes which extend into the legs. In some of the Pycnogonidæ they run through the whole length of the legs. In that case the stomach is surrounded by cæcal processes nearly as long as the legs of the animal. In most Arachnida the circulatory organs are well developed, but in the lower mites they are no longer found. The *respiratory* organs in all the higher forms are either lung-sacs or tracheæ, or both, but in many mites there is no trace of such; especially is this the case in the Tardigrada. The animals belonging to this order have an extreme tenacity of life. They may remain dried up for a number of years, and yet come to life again. As to the organs of sense, they all have eyes of the same structure as those of the scorpion. With respect to the *reproductive* organs, in all but the Tardigrada the sexes are distinct, the members of that division being bi-sexual or hermaphrodite. In many the process of laying the eggs corresponds with the shedding of the skin, in which the eggs are included, and which may be regarded as serving them as a cradle. The scorpion has distinct copulatory organs, but in the spiders there is an exceptional peculiarity. The female is much larger than the male, and is bloodthirsty and ferocious, and is most improperly addicted to cannibalism. The male is much smaller, and has therefore to be on his guard how he approaches his fierce and tyrannical mate. It is now that the male spider makes use of the box-like apparatus at the ends of the palpi. He watches his opportunity, and when he has discovered a favourable moment, he turns back the palpi into the genital openings, and passes some of the seminal fluid into the box in the terminal joint; he then darts forward with much speed, and puts the semen into the vulva of the female, and then immediately runs back again. This process is without a parallel in the animal kingdom. The nearest approach to it is seen in the cephalopod molluscs. No marked metamorphosis occurs in any of this class. In the mites there is some approximation to a metamorphosis, as they sometimes have only two or three pairs of legs when born. The only real change of form that has been observed to take place is in the Pycnogonidæ and the Linguatulideæ.

FROM ABROAD.—THE NEW FRENCH LAW ON THE PRESS—EMBAUMEMENT EXTRAORDINAIRE—INFLUENCE OF TEMPERATURE ON RABIES CANINA.

ALTHOUGH the Medical press has escaped the fiscal provision in which the new law at one time seemed to threaten to include it, it will suffer in its liberty of action from one of the provisions which prohibits journalists to record or comment upon the events of private life. This, aimed at what was thought to be the excessive publicity given to the sayings and doings of the present not very edifying social life in Paris, will readily admit, at the caprice of individuals, being interpreted to apply to various other concerns on which journals have been accustomed to comment, with interest to their readers and advantage to the public. Especially will this be so, as the facts will not have to be decided on by any law of libel interpreted by a jury, but by the dicta of a lower order of magistrates, who are little other than Government *employés*. To what a strait the poor *feuilletonistes*, or gossipers, will be reduced is seen from Dr. Simplice's *alias* M. Amedée Latour's jeremiad; for numerous are the events daily occurring in Professional life which, if strictly interpreted, are of a private character. It is true that the subjects of them are usually eager enough that they should be chronicled; but if any of these should prove "cantankerous," or imagine that the record has been made to their detriment, they may easily put the law in motion. And the susceptibility of the French is remarkable—brought on, no doubt, by the absence of that bracing air derived from the liberty of the press to which we are accustomed. As it is, long reclamations are compulsorily inserted in the journals upon the most trumpery grounds. God knows that what amount of liberty is possessed does not want curtailing, for it is already infinitesimal. Almost all the range of subjects which come under our category of "Medical politics" is tabooed ground; and even a subject so vital in its bearings upon the interests and well-being of the Profession as that of the question of free or privileged teaching, which is actually before the Senate, and upon which Professional pens could throw so much light, is absolutely unapproachable by a French Medical journal. Certainly, the ingenuity of French writers is remarkable, and the dexterity with which they so often insinuate their opinions and views between the meshes of the legal network that envelopes them is admirable; but one cannot repress a feeling of indignation that they should be subjected to so humiliating a necessity, and entertain the conviction that so enlightened a body of men will not much longer be deprived of that liberty of expression now enjoyed by almost every other European people.

According to the *Tribune Médical*, M. Marini, an Italian embalmer of Cagliari, in Sardinia, has so matured his procedure as to cast into the shade even the preparations of Professor Brunetti, which excited so much attention at the Paris Exhibition. His method is at present a secret, but he is said to be about to reveal it at the instigation of the Medical Institute of Florence. At all events, some of the results reported are marvellous enough. By it all parts of the body, solid or fluid, can be effectually preserved, whether flesh or blood, brain or bile, etc. So long, too, as desiccation has not become quite complete, he can restore to the mummified body or its limbs their natural form and volume, both internally and externally, so that the muscles, tendons, veins, arteries, and nerves reassume completely the aspect and transparency which they possess in a body that has only been dead for some hours. In 1865 he had, at Cagliari, so completely preserved the body of Martini, the historian, that, after four months, thanks to the extraordinary action of the "liquid reviver," all their suppleness was restored to the limbs, and the body was able to be dressed and placed in a chair, in order that a photograph might be taken, and which exactly resembles one taken from a living person. During his

recent visit to Paris, M. Marini had an audience of the Emperor, who had long been admiring one of the marvels of the new art, which was nothing less than a fragment of the arm of an Egyptian mummy, to which M. Marini had restored, after perhaps 5000 years, if not its colour, at least its suppleness and its appearance of a human limb. This arm, which Professor Sappey had sealed up in 1864, and which has been dried and moistened again a hundred times, presents all the appearance of a living arm. Also the entire body of a rabbit was exhibited, which, although dried, was so transparent as to allow the minutest details of its organisation to be inspected. Finally, the embalmer, wishing to show how his discovery may exhibit an art eccentricity, has constructed a table, which is to be transferred to one of the museums, composed of an extraordinary mosaic of petrified blood, brain, bile, etc., in which are embedded four human ears, and on which is raised a young woman's foot, having its colour and transparency perfectly preserved. Some of our readers might think the proper place for this *article de vertu* would be Madame Tussaud's "Chamber of Horrors." Not so. M. Marini's eulogist informs us, "Science and art here throw light on nature in a manner so novel and so pure that all idea of the horrible disappears, to leave no other feeling in the mind of Napoleon III. than one of profound admiration." And the Empress was fetched to see the sight.

Professor St. Cyr has recently read an interesting paper before the Lyons Medical Society, having for its object the investigation of whether temperature and humidity exercise any influence on the development of canine rabies. To this end he has made an exact examination of the register of dogs dying from rabies at the Veterinary School during the ten years 1858-67, and has compared this with the registers of the temperature and amount of rain which fell during this period. The total number of cases of rabies admitted was 460, and these were distributed over the different months in the following manner:—January, 37; February, 51; March, 48; April, 48; May, 46; June, 36; July, 39; August, 45; September, 26; October, 25; November, 28; December, 31. A second table furnishes the mean temperatures of each month of each year of the decennial period, the mean temperature for the whole period, and the mean annual temperature. Another indicates in millimetres the quantity of rain that fell in each month of each year. It results from the first table that the months of February, March, April, May, and August exhibited the greatest numbers of cases. Some of these months are remarkable for changeable and wet weather, to which some observers have attributed importance; but this does not hold good of others of them, and the advocates of the efficiency of great heats point not only to the returns for August, but also to the fact that in the year 1865, which was the hottest and driest by very far of all the period, eighty-seven cases occurred, being nearly double of the annual mean of the ten years. But the year 1866 only produced thirty-one cases, although the mean annual temperatures of the two years were alike. And even among the eighty-seven cases which occurred in 1865, fifty-five, or nearly $\frac{8}{12}$, of them did so in January, February, April, and May. To elucidate the matter still further, M. St. Cyr gives other tables exhibiting the *maxima* and *minima* of cases observed, and the corresponding temperatures and amount of rain; and the general result is that neither season nor temperature nor the condition of more or less moisture exerts any appreciable influence whatever. From former investigations the author had come to the conclusions that the race, age, and sex of the animals likewise exercise no influence; and that the causes of the disease, with the exception of one, are absolutely unknown. This cause is, of course, the bite of a dog already mad, and if we are ever to bring this dreadful disease within limits we must prevent such bites being inflicted. If this were done by absolutely interdicting any unsecured unmuzzled dog from appearing in the public streets, Professor St. Cyr believes that the disease would not only diminish, but absolutely disappear. However, he is not sanguine enough to believe that any such regulations will be put into force.

PARLIAMENTARY.—FLOGGING IN THE ARMY—POOR RELIEF BILL—MEDICAL PRACTITIONERS (COLONIES) BILL—VACCINATION—CHOLERA.

In the House of Lords on Thursday, April 2,

On the second reading of the Marine Mutiny Bill,

The Duke of Cambridge said, while by no means wishing to disturb the decision the House of Commons had come to with reference to corporal punishment, still he could not help saying that the military authorities were now placed in a most awkward position, for they could not inflict corporal punishment, and no other means of correction had been substituted. In the civil law, corporal punishment had lately been introduced in the case of the garrotters with the best effect, and he thought that the deterrent effect which corporal punishment had in checking outrageous offences in the army was most salutary in its operation. He did hope, as corporal punishment was now abolished, the Royal Commission now sitting would give the authorities something in lieu of it to support the discipline of the army.

After a few observations to the same effect from Lord De Grey, Lord Hardinge, and Lord Russell, the Bill was read a second time.

The Earl of Devon moved that the Select Committee on the Poor Relief Bill consist of the following:—Lord Archbishop of York, Duke of Richmond, Marquis of Salisbury, Earl of Devon, Earl Denbigh, Earl of Hardwicke, Earl of Carnarvon, Earl Grey, Earl Ducie, Earl of Ellenborough, Earl of Kimberley, Viscount Eversley, Lord Clinton, Lord Egerton, Lord Northbrook. The noble Earl said he should move that Lord Stanley of Alderley be added to the Committee.

The motion was agreed to.

The Duke of Buckingham, in moving the second reading of the Medical Practitioners (Colonies) Bill, said that its necessity arose from the fact that in the Medical Act, 21st and 22nd Victoria, cap. 31, the powers of the Colonial Legislature to make regulations on this subject had not been recognised. The result was a conflict between the Imperial Act and the existing law for Canada. The object of the Bill was to enable Colonial Legislatures to lay down regulations for Medical registration within their own limits.

The Bill was read a second time.

In the House of Commons,

Sir J. C. Jervoise asked the Vice-President of the Committee of Council on Education whether he had noticed a paragraph in a Medical journal relating to a recent outbreak of small-pox at Woolwich, in which it is stated that "four new" and "eleven fresh cases were vaccinated;" and how this statement was to be reconciled with that of the Vice-President of Council on Education on the Vaccination Bill of 1867, that "small-pox was absolutely preventible by vaccination."

Lord R. Montagu said that he had not spoken of an imperfect vaccination of individuals, or of a partial vaccination of the population. By a perfect vaccination of the whole people the disease could be stamped out. As an example he might mention that this had been done in one district by the energy of Dr. Hughes, of Mold, in North Wales.

Sir J. Jervois asked the Secretary of State for Foreign Affairs whether any steps were taken to prevent the outbreak of cholera in the Mediterranean in 1867, in accordance with the report of the British Cholera Commissioners, October, 1866, on the "Origin, Transmissibility, Incubation, Fomites, and Measures of Prevention" of cholera; and whether, in consideration of the life, liberty, and property of many of her Majesty's subjects depending on the adoption of the conclusions arrived at by the Conference, a translation from French into English of the report, "preceded by a prologue," would be distributed.

Lord Stanley answered that the regulation of British colonial ports was not conducted by the Foreign Office, and it was needless to add that the Government had no power over the acts of foreign powers. But he might state that a sanitary board had been established at Constantinople having for its object to check the spread of cholera in the Mediterranean; and some regulations had been issued by that Board, respecting which he had replied to a question by the hon. Baronet a few days since. Regarding the latter part of the question, he doubted whether it would be worth while to do as was suggested.

MEDICAL NOTES ON PRISONS, PRISONERS, AND PUNISHMENTS.

No. I.—THE DEBTORS' PRISONS OF LONDON.

No one, we think, will deny that our present criminal system is far from being what it should be. We find that violent crimes are increasing in number and barbarity; prisons and punishments are not sufficiently deterrent, and there is no loophole for the escape of the criminal from the path in life he has chosen or which has been accidentally thrust upon him. It is not, however, of this class we intend to speak in the present paper, but of one frequently far more unfortunate, though not unseldom quite as criminal, morally speaking, as the veriest felons. If our laws for criminals are bad, those for bankrupts are worse, for to mete out the same rewards and punishments to these two classes of men is something unusually absurd. There can be no doubt, we think, that the days of imprisonment for debt are numbered. When a man fails in business, in spite of everything he could do to the contrary, to throw him into prison is simply, in most cases, to prevent his recovering his former position, and of course in many instances also to negative the possibility of his paying his debts. For fraudulent debtors imprisonment in a debtors' prison is not an adequate punishment; it may tell on their health, but the discipline is not sufficiently strict for correction. If, however, one argument more were needed for the doing away with imprisonment for debt, it exists in the condition of the prisons in which debtors are confined; these are, in London, Whitecross-street Prison and Horsemonger-lane Gaol. Besides these, there were formerly the Marshalsea, the Fleet, and the Queen's Bench, all now abandoned. At one time also a whole host of sponging houses were to be found, especially in the neighbourhood of Chancery-lane. Fortunately, however, for the interests of society, only one now exists, a wretched hole in Bream's-buildings, Chancery-lane, which, owing to a notorious escape not long ago effected from it, will, we trust, soon also be among the things of the past. For accommodation in this miserable place men pay from one to two guineas a day, and, if they are in hopes of a speedy solution of their difficulties will frequently pay this for some time, as the licence allowed them is much greater than in a regular prison. It is further unfair to the creditors, for if a man can afford to pay so much for his board and lodging he should not be in a debtors' prison.

But supposing a debtor in the custody of the Sheriffs of London and Middlesex has, either directly or after a sojourn in Bream's-buildings, desired his transfer to Whitecross-street, he will soon find himself in front of an old brick building situated near the ancient London Wall, in a densely populated neighbourhood. After some preliminary forms, he will be transferred to the Surgeon for inspection, that it may be ascertained whether he is labouring under any infectious disease. He will then be classed according as he is able to support himself or not, the latter set receiving the prison allowance, the former purchasing their own provisions. It is not now necessary that the prisoners should apply to any one person for the purchase of their provisions, but it is in all cases necessary that the merchant should have leave from the visiting justices before he can bring them into prison. This leave is, however, readily obtained, the only thing this regulation is intended to effect being to prevent the introduction of forbidden articles, as beer, wine, spirits, or the implements of gambling. Those prisoners who provide their own food are entitled to purchase a quart of beer or a pint of wine a day; but those on the prison allowance receive no such indulgence except by the Surgeon's order, it being judged that if they cannot supply themselves with food they ought not to supply themselves with beer. Both classes are permitted to smoke, but only in the airing grounds. The latter clause is, however, we suspect, systematically disregarded. Prisoners supplying themselves with food are not allowed to cook it in the wards, all cooking being done in the public kitchen. The food supplied to poor debtors is sufficient and good. The following is their bill of fare:—For breakfast, one pint of cocoa or one pint of gruel and six ounces of bread; supper the same as breakfast; for dinner on Sunday, Tuesday, Thursday, and Saturday, four ounces of cooked meat without bone, half a pound of potatoes and six ounces of bread; on Monday, Wednesday, and Friday, one pint of soup(a) and six ounces of bread. Each of these is good: the bread is pure, the meat of average quality—not neck and leg pieces only—and the soup excellent. Indeed, we confess to having lunched with great satisfaction on a portion of the last when visiting the prison.

At Horsemonger-lane the prison allowance is somewhat different: no cocoa is given, but the bread is eight instead of six ounces, and the meat three instead of four ounces; both the bread and the meat are good, but the soup is not so nice as that made at Whitecross-street. The inmates of neither have, however, any well-grounded reason of complaint, either as to the quantity or quality of the food supplied; in fact, in the Surrey prison the allowance of bread is over-abundant for men who do no work, and in more than one cell we observed heaps of broken victuals on shelves—in one instance what must have been the accumulation of weeks.

But to turn to the sanitary state of these prisons, we find that things are not so satisfactory. Whitecross-street, which is almost entirely given up to debtors, is built so as to form hollow squares, which are used as airing grounds; there is also a space within the walls and surrounding the prison buildings which may be used for the same purpose. These airing grounds are somewhat confined, and the urinals in them are devoid of water; in one also there is a large dustbin containing garbage, which, in warm weather, if not removed every day, must soon be in a state of decomposition. Some of the urinals and closets within the building are exceedingly unclean and almost destitute of water, the smell being far from pleasant. The day room for the first-class (those supplying their own food) is very close and badly ventilated—a long, low, old-fashioned room, in which all the men are compelled to spend their waking hours, for the bed-rooms are shut up during the day. Here all the prisoners associate, with very little advantage to themselves or others, in careless costume, with dirty, frequently unshaven faces; the men lounge about and discuss the best means of doing the public or defeating the machinations of revengeful creditors. So much is this the case, that the Governor informs us few men come back a second time to Whitecross-street without having doubled or trebled their former liabilities. If they have any tinge of honesty in them when they enter prison, they commonly get rid of it before they go out. Nor are the quarters they occupy from 9 p.m. to 9 a.m. of a more æsthetic tendency. Here again there is a long, low, badly, or not at all, ventilated room, divided by partitions, rising five or six feet above the level of the floor, into little cells or cabins, each occupied by the bed and belongings of a single occupant. This charming room has no fire or other means of warmth than the gas by which it is illuminated from 9 to 10 at night, and, beyond certain holes in the walls, no means of ventilation. We have already referred to the frowsy, dirty condition of the prisoners, but when we come to inspect the washing apparatus, this is hardly to be wondered at. These are merely long stone troughs, having one or two water taps laid on to them, and having one or two moveable iron basins in them; they are unsavoury and unsatisfactory, as are the closets attached. In fact, in the whole prison the only place where we saw anything approaching to satisfactory lavatory apparatus was in connexion with the Infirmary, to which they were supplied on the urgent application of Mr. Langmore, the Surgeon. It must not, however, be concluded that all the prisoners are slovenly and careless; one gentleman, "in for his thousand" or so, we specially observed airing himself in the presence of the less fortunate gaol-birds of class 2 in lavender kids, and with all the etceteras. He, we were informed, retained a barber for an hour a day to look after his hair and nails; he, however, was the beau of Whitecross-street, and such weaknesses are far from common. The beds in the Hospital ward are not surrounded by the horrid partitions referred to, but the day room is very badly ventilated, and its smell disagreeable. At the time of our visit the condition of the female wards was still worse, at least so far as sleeping room was concerned, for the small ward (there are fortunately not many female prisoners) was unventilated, and its odour extremely offensive, whilst its windows were so boarded up, to prevent its being overlooked by the male wards, as to admit very little light. By our representations, however, we are happy to say it was arranged that this room should be changed

(a) The composition of each article of food will be indicated in a future article.

for another and far better one, which had been reserved for Hospital purposes, but rarely if ever used for such. The day-room of the second-class prisoners was not worse, but we think rather better, than that of class 1, but their airing ground is too restricted, and the urinals not what they should be. There are two rooms set apart for visitors, according to their class, and rooms for consultation with legal advisers are also retained; there is nothing special to remark about them. Many complaints are made as to the restrictions on visitors, the hours being from 10 to 12 and 2 to 4, this break of two hours occasioning much inconvenience to some people. We are, however, informed by the Governor that the irregularities which formerly prevailed at these times (the dinner hours of the warders and prisoners) were such that the rule as it now exists had to be rigidly enforced. We are, however, assured that when the release of a prisoner is in question no one applying at any reasonable hour is refused admittance.

With no employment, the hours drag away wearily, and the two great resources of most men of this class —gambling and drinking—being against the rules, all sorts of attempts at evading these restrictions are employed, so that every now and again a raid has to be made in search of forbidden articles. For the same reason also the Surgeon is being perpetually pestered with all sorts of complaints, for which the panacea, according to the would-be patients, is alcohol. As a consequence of this restriction of liquor, delirium tremens is not uncommon among newly admitted prisoners, sometimes even ending in death. But disease of a bad or contagious form is not common; were it so, we shudder to think of what might be the result, for there is every convenience for the spread of pestilence. To a certain extent, this may depend on the fact that prisoners rarely remain in longer than two months; but those poor wretches, county-court debtors, may be imprisoned for the same debt over and over again. It may also shock some people who imagine that imprisonment for debt is non-extant that there are two men in Whitecross-street who have been respectively four-and-twenty and seven years in the Queen's Bench and Whitecross-street. But we think we have said enough to show that the condition of this prison adds one more to the many arguments for the abolition of imprisonment for debt. We do not intend for one moment to reflect upon the conduct of the officials; they do what they possibly can, but the place as it now exists is not fit for habitation.

At Horsemonger-lane the debtors are not better off. They are confined in what might be aptly termed two cages to the right and left of the Governor's house, which is situated immediately opposite the entrance gateway. When the other portions of the prison were converted from the old plan into something more in accordance with modern views, these cells seem to have been overlooked, so that they furnish as good an idea of the old and formidable prisons as any we have seen. To say this is to say that they are narrow, badly ventilated, and as ill-adapted as could be conceived for the reception of men who have only given their persons as security for their debts. The urinals are partly good, partly bad; but the only airing ground at the disposal of the debtors is the cage in front of that portion of the prison which contains their cells. Discipline is not strict among them; if they be secure, the officials appear to be satisfied. As before stated, their provisions are abundant and good.

(*To be continued.*)

NOTES ON MEDICAL EDUCATION.

THE SYSTEMS OF MEDICAL EDUCATION IN FRANCE AND ENGLAND COMPARED.

No. VIII.

Examinations.

We have left the consideration of examinations to the last, and we must frankly admit at the outset that it presents considerable practical difficulties. In France, where everything of this kind is under State direction, a thoroughly good and efficient system of examinations is easily established and enforced. Yet in this case the *manner* in which this system is carried out leaves much to be desired, as we shall presently see. But in our own country no central authority of this kind exists, and every one of our numerous licensing bodies has practically the power of establishing and carrying out any kind of examination it may think sufficient. In consequence of this arrangement, we have in Great Britain a very unequally educated body of Medical Practitioners, from the man who has satisfied the severe requirements of the London University to the man who has *fluked* through the College of Surgeons. There is a manifest injustice in this both towards the public and towards the well-educated members of our own Profession. But where there are so many conflicting interests to reconcile, it is extremely difficult to suggest any universally satisfactory measure of reform in this direction, especially when we have to trust entirely to voluntary combinations, and have no arbitrary legislative power to fall back upon. One of the objects of the Medical Act was to produce a *uniform* and sufficient standard in the examinations conducted by the different licensing bodies, and this is one of the functions which the Medical Council are called upon to perform. The only step in this direction that has hitherto been taken by this body is the visitation of examinations, and although we would be the first to admit that this step has been productive of much good, yet we cannot conceal from ourselves that it is at best a cumbrous and unsatisfactory process, depending almost entirely for its success on the earnestness of the individual visitors and on the permission or toleration of the examining boards. It does not seem to us impracticable for the Medical Council to carry out some modification of the scheme proposed by Dr. Acland during their last sitting. We can scarcely conceive it to be impossible, or outside the proper functions of this body, that they should establish three central examining boards, one for England in London, one for Scotland at Edinburgh, and another for Ireland in Dublin. By holding the examinations on the same day and at the same hours, they might be made absolutely uniform and identical in each of the three cities. The members of all existing licensing bodies should be invited to participate in the construction of the central examining board, which should be under the control of the Branch Council for each country. The privileges and powers of the corporations which now grant licences need not be interfered with *at present*, except to this extent—viz., that every intending Practitioner of Medicine should be required to pass the central board, and that the licence of this board should be a sufficient legal authorisation to practise Medicine and Surgery in all its branches. Interference to this extent is inevitable in any attempt to introduce a uniform and improved standard of examination in this country. A proceeding of this kind would, we apprehend, meet with the approbation of those teachers who, like Professor Bennett, of Edinburgh, think that "the Medical Council would vindicate its claim to public confidence by endeavouring to merge the conflicting interests of the licensing bodies and universities into the catholic desire of elevating the education of the Profession to the same standard throughout the length and breadth of the land." The Professor adds, and we cordially endorse his utterances on this subject, "That in a Profession such as that of Medicine there should exist, not only in the same country, but in the same city, various examining boards, so managed that the candidate who is incapable of passing one can rush to another with almost the certainty of obtaining his licence, is a scandal to the community such as should be abolished, and little jealousies and sneers as to the value of this or that qualification ought to cease. It is by a like education, a like examination, and a like qualification, that we shall learn to respect each other, diminish the petty feelings which opposing legislation and regulations have fostered, and, by union and a combined effort, not only solve those problems which agitate our science, but place the whole body of its cultivators in just relation to the Government on the one hand, and to the public on the other."

With these preliminary remarks we will proceed to describe how the examinations are conducted in a School of Medicine in which centralisation and State direction are pushed to their highest development.

We have already alluded to the number of examinations that the aspirant for a Medical degree in Paris has to undergo before the degree of Doctor of Medicine can be obtained—viz., one at the end of each year of Medical study during the first

three years, and then five other examinations subsequently to these, and the composition of a "thesis." We have also stated the nature and extent of the subjects which form the matter of each examination, and we need not go over this ground again. We propose now to deal with the *manner* in which these examinations are conducted.

In the first place these examinations in Paris are *public*. They are held in the museum attached to the School of Medicine, and any one is at liberty to be present during the examinations. We are not aware that a great many persons avail themselves of this privilege; the spectators are generally confined to those who intend before long to present themselves for the same ordeal. Indeed, an examination is much too dry a business to attract any but those immediately interested. It has been suggested from time to time that it would be a good thing if examinations were to be made public in this country, but it has been objected that public examinations afford too great a temptation to examiners to "show off." No doubt grave and learned examiners ought to be superior to a temptation of this kind, but from our own observation in Paris it certainly did appear to us that the examination in some instances partook rather of the character of a demonstration than an examination, the examiner having much more to say than the examinee. We are disposed to doubt that any great advantage attends this publicity of examinations. We are, however, of opinion that all Medical examinations should be open to all the recognised Medical teachers. We can imagine nothing more likely to conduce to thorough and sound examination than the influence which the critical, though unauthorised, supervision of the teachers in the Medical Schools would exercise. It would certainly tend to remove that feeling of unjust dealing which is prevalent, and apparently not without good grounds, in the minds of many students with regard to *certain* examiners.

Another objection which we are disposed to take to the French system is that they rely too much on *vivâ voce* tests. Out of eight examinations which precede the grant of the diploma, in only one is there any written work required. When examiners are disposed to be talkative, and most French examiners are so disposed, it is very easy for an artful but lazy candidate to lead his examiner on to answering his own questions. We have known this to have been done not infrequently at our own College of Surgeons in days gone by. A written examination prevents the success of an artifice of this kind. On the other hand, we are of opinion that in all cases a *vivâ voce* examination should invariably follow a written one, for at a written examination there are also men capable of clothing comparative ignorance in an abundance of words, and a searching oral examination will often disclose weak points that were artfully concealed in the written paper.

There is one arrangement in the French school which meets with our most cordial approbation; it is the provision that is made for the presence of the younger teachers at the examining table. At each table the candidate meets with one professor and two *agrégés*. The professor examines especially on those subjects that he has treated of in his courses of lectures, and the *agrégés*, who are, of course, comparatively young men, examine in the whole extent of the subject, treated in a general manner. Thus the younger element of the schools always preponderates at the examining board, and this is as it should be. The contrary prevails with us, and this arrangement bears very hardly upon our younger teachers.

We have in some of our examining boards "examiners appointed for life, wedded to old views and old traditions, resisting innovations to the last—teachers educated, if not actually born, since the examiners became old, teaching perhaps only for a few years, whose heart is in the new order of things, who love progress and yearn for improvement—students terribly confused by the conflict of opinions, compelled to satisfy the examiners, and yet inclined to be led by the most progressive teachers, in too many instances spending their student days in a perfectly neutral state, hoping thus to escape giving offence to the party of obstruction which gives them a legal right to practise, or to the party of progress which has no legal rights to give, but only hopes to make them well-educated, earnest, thoughtful Practitioners."(a)

Of late years there has been manifested a great desire to make examinations more practical than they were formerly. We are not aware that the Paris Faculty has made much more progress in this direction than our own examining boards. In Paris, at the first examination for the Doctor's degree, the candidate is required to perform a dissection of some given region (for which four hours are allowed), and at a subsequent examination he is required to investigate the case of a patient who has *just been admitted* into one of the Hospitals, and, after a *five* minutes' investigation, to give a general account of the case. On another occasion he is required to perform an operation on the dead subject. This is all the practical work that is required of him. Some of our own examining bodies now require as much, or even more than this, in the way of practical work, from the candidates for their licences or degrees.

There is one very objectionable practice tolerated, if not encouraged, in the Medical Faculty of Paris: it is that the candidates are afforded an opportunity of attempting to conciliate the favour of their examiners antecedent to the examination. It is possible for the student to know eight days before the examination takes place who will be his examiners, and we find it recommended in a "Students' Guide" that he should take an opportunity of paying a visit to his examiners, or, at any rate, endeavour to get some one to speak to them on his behalf. It is also delicately hinted that by making inquiries he may get to know the kind of questions they are likely to put. The student is also urged to read anything that his examiners may have written, and to show himself sufficiently intelligent to reproduce in the presence of the author his favourite ideas, whatever they may be, and *especially if they are but little approved of by the majority of authors*. This student's counsellor continues:—"I advise you very strongly to follow during the last eight days the Hospital visit of one or other of your examiners, in order to adopt their opinions and sometimes even their language. They will be the better disposed in your favour. If they have a clinique, public or private, enter to it, if *it is but the day before the examination!*"

Finally, in the French school there is the test of the "thesis." This consists in a printed dissertation on some subject connected with Medicine or Surgery, to be selected by the candidate. This is followed by a verbal argumentation on the subject of the thesis as well as on certain other subjects which are drawn by lot by the candidates. We are assured that this test is, in the majority of cases, a mere formal matter, but that in a few instances it affords an opportunity to the really clever or laborious candidate to early attract official attention to, and often substantial recognition of, his abilities and industry. Some of these theses have from time to time taken an important place in the Medical literature of the day. The "trial of the thesis" is thus spoken of in a semi-official guide to the Medical Faculty:—"The University has always attached a great importance to the theses for the Doctor's degree. They are examined attentively, and it often happens that, on account of their scientific merit, they attract to their authors the good will of the highest authorities." A permanent commission, presided over by the Dean of the Faculty, is charged to make every year a report to the head of the University upon any theses which show real merit. It is thus seen that when the State takes an active part in the regulation of Professional education, genuine ability and earnest work are more likely to meet with an early and valuable recompense than they are with ourselves.

The *plan* or *scheme* of examination in the French Faculty has much to recommend it, but not so the *manner* in which it is carried into effect. This *plan* includes most of the arrangements which the Medical reformers in this country look upon as desiderata—viz., frequent and *absolutely uniform* examinations; *practical* tests; a majority of *young* examiners; examinations open to any one who takes an interest in them; a *catholic* character in the examining body—that is to say, the members of this body are really and honestly the *representatives* of the Medical science of the day. It is needless to point out how far our own system is from realising these conditions. Every one who takes an interest in the subject of Medical education knows well enough its shortcomings.

We now bring our comparison of the English and French systems of Medical education to a close. Since we commenced these "Notes" only a few months ago, the desire for reform in our system of Medical teaching has made very appreciable progress. Persons of great influence and experience have freely expressed their dissatisfaction with the present system. At the same time there does not appear to exist much agreement as to the best means of improving it. Let us, in conclusion, express a hope that the Medical Council will succeed in discovering these means. For our own part, we believe that they will be found to consist primarily in a greater concentration of the existing Medical schools, and in enforced uniformity and authoritative direction of examinations.

(a) Dr. Beale's introductory lecture, *Med. Times and Gaz.*, Oct. 5, 1867.

REVIEWS.

A System of Medicine. Edited by J. R. Reynolds, M.D., F.R.C.P., Professor of the Principles and Practice of Medicine in University College, etc., etc. Second Volume. 8vo. London. 1868.

[FIRST NOTICE.]

Compound bodies are so proverbially slow in motion that we can hardly express suprise at having to endure a two years' interval between the appearance of the first volume of this work and of the second. When we say that what we have before us consists of 990 pages, and is the joint production of sixteen contributors, Dr. Reynolds's justification is before our readers. Its external form is in its favour, so far as the eye can judge; the type is good and not too crowded, the external margins are sufficient, the paper opaque without being needlessly thick, and the binding neat and unassuming. Perhaps we may be allowed to complain of the latter, that some copies are weak in the back—that the "spinal ligaments," or whatever may be their proper name, are not stitched into the paper with sufficient firmness. It should also be noticed that the valuable tables in an article on "Abscess of the Brain," about the middle of the volume, have so little margin left on the inner side that rebinding or restitching will infallibly conceal at least a line of type, unless those pages are mounted separately. There are also rather too many (for there ought to be none) of those misprints which are not the editor's fault, occurring after revise from shifting the type, such as dropped letters and stops, words run one into another, and the like.

The picking of these holes is an evidence how highly we value the real virtues of the work before us. It may fairly be considered as a representation of the most scientific practice of the present day as to the diseases depicted. Let it be understood that it is only this volume which is spoken of; the pleasure we feel is not a retaining fee for the future parts of the publication, to the excellence of which we cannot bind ourselves, though we must say this specimen gives us sanguine hopes. Why we are so guarded is, that a great portion of this (the second) volume is occupied by a subject which Dr. Reynolds has made especially his own—the "Diseases of the Nervous System;" and it may be that a favourite child has received unconsciously a pet's share of attention. To assist him in elucidating it, he has employed a large section of his staff. Dr. Maudsley takes the subject of "Insanity;" Dr. Gull, "Hypochondriasis" and "Abscess of the Brain;" Dr. Radcliffe, "Chorea," "Diseases of the Spinal Cord and Column;" and Mr. Radcliffe, "Epidemic Cerebro Spinal Meningitis;" Dr. Anstie, "Alcoholism" and "Neuralgia;" Dr. Chambers, "Ecstasy," "Catalepsy," "Somnambulism and Allied States;" Dr. Begbie, "Local Paralyses" and "Spasms;" Professor Maclean, "Sunstroke;" Dr. Ramskill, "Cerebral Meningitis" and "Vertigo;" Dr. Roberts, "Wasting Palsy;" Dr. Sanders, "Paralysis Agitans" and "Metallic Tremor;" Dr. Gee, "Tubercular Meningitis;" Dr. Hughlings Jackson, "Convulsions" and "Cerebral Hæmorrhage;" and the others are treated of by the editor himself, assisted by the pen and scalpel of Dr. Charlton Bastian in those parts of the subjects which seemed to require fresh investigations in morbid anatomy.

Among diseases of the nervous system we are glad to notice that Dr. Reynolds includes hysteria. The unfortunate derivation of the name, from the distinctive organs of the sex in which it is most frequent, has led to its erroneous classification, if not in nosologies at least in men's minds. The author here bases his whole theory of the disease, and his advice as to the curative and preventive management of it, on its being essentially a perversion or defect (for all morbid perversions are defects) of the will. On this defect is necessarily consequent an exaggerated manifestation of all those forms of involuntary mobility, ideational, emotional, sensational, and reflex, which normally the will should control. Hence the predisposition of women lies in the effeminacy of their nervous endowments, and not in the nature of their reproductive apparatus; and hence the only effective treatment consists in developing the faculty of self-control in a steady educational manner. Whether this is done by orderly muscular exertion, marriage, shower-baths, disciplinary study, periodical rest, regularity of meals, etc., depends on the motive cause of the complaint; but in all cases the cure rests on a method of life regulated by reason and rhythm rather than by current emotion. Attacks of hysteric convulsion may be arrested by a plan suggested by Dr. Hare—viz., that of forcibly preventing the patients from breathing, by holding the nose and mouth, for a time. The long breath they are obliged to draw afterwards is followed by a relaxation of all spasm. We can strongly recommend this excellent short essay to the study of all our readers. But we can assure them that it is merely a specimen, though a typical one perhaps, of the prevailing philosophical spirit which runs through the whole of the papers on "General Diseases of the Nervous System." The treatment is based on what is known of the pathology, rarely upon tradition. The only exception, perhaps, is that on chorea, in which about thirty methods of treatment are simply enumerated in a list, at which the perplexed pupil is directed to glance, and then decide upon his mode of action. Surely it ought to have been pointed out that the explanation of these various and conflicting modes of doing good in chorea is that the natural tendency of the commonest form of the disease is to recovery, while the severer kinds, depending usually on grave lesions of spinal cord, are notoriously unaffected by treatment of any kind. We had thought that since Fontana adopted that explanation of the several hundred cures for the poison of the viper, the reasoning had been universally followed.

Among the shorter articles rendered interesting by additions of recent knowledge, we would especially draw attention to those by Dr. Roberts on "Wasting Palsy," and on "Locomotor Ataxy" by Dr. Radcliffe. Both are carefully and picturesquely written, and a good contrast between the two conditions is unconsciously drawn by authors writing independently of one another.

When we come to partial diseases of the nervous system, the progress of the age in morbid anatomy, the really great progress of the present century, comes prominently forward. This is evident in the very first article, "Simple Meningitis." Acute hydrocephalus forms no separate class, and the cases formerly called by that name are told off either into this article along with other simple inflammations of the membranes in adults, or described as "tubercular meningitis" in the next essay. "Cerebritis" also has nearly disappeared, being atrophied in the hands of the editor down to three pages. Etymologists will rejoice in the moribund condition of that barbarous and needless word. Another good instance is "apoplexy and cerebral hæmorrhage." At one time the connexion was not known; then they were viewed as synonymous, and people actually applied the term apoplexy to a hæmorrhagic lesion in the lungs. Here morbid anatomy, after having been at first not known to explain anything, and then held to explain everything, has assumed in the hands of Dr. Hughlings Jackson that true position in diagnosis which it will probably occupy for some time. How far we may assume from the existence of the group of symptoms that there is hæmorrhage, and how far the presence of hæmorrhage entails the symptoms and their consequences, is discussed shrewdly and briefly. The latter merit, it appears, we owe to the editor, who cut down the article from nearly eighty pages to forty, an artistic alteration of which the author has probably by this time acknowledged the beauty. The therapeusis is very properly divided into "(1) the treatment of the apoplectic condition which cerebral hæmorrhage causes, and (2) the treatment for effusion of blood into nervous tissue." This is a very simple, but generally neglected, step towards clearing the way for a *processus integer*. Dr. Jackson's own treatment for the first consists in the application of two drops of oleum tiglii to the tongue and complete quiet. For the second his pathology seems to incline him to recommend bleeding, but he hesitates evidently because so many good authorities deprecate it, and he has never but once had an opportunity of seeing it practised. That feeling of helplessness, so far as specific measures are concerned, which the Practitioner must experience in apoplexy, Dr. Jackson turns to good account by directing his attention, at the end of the article, to what he *can* cure—namely, the general functional condition, varying in each case, which has led to the hæmorrhage.

As an example of exhaustive induction, we cannot forbear drawing attention to the article on "Abscess of the Brain," which is the joint workmanship of Dr. Gull and Dr. Sutton. All the well-recorded cases of this lesion, to the number of seventy-six, are tabulated in order, and the facts concerning its etiology, morbid anatomy, and symptoms, are appraised in a ratio to their frequency of occurrence, with a numerical reference to the cases on which the statements are based. Then follow the pathology, diagnosis, and treatment thereon founded. The narrow limits of the subject make it a suitable

one for the purpose, for to have discussed any common disease in this way would have produced an article too long-limbed to travel inside this volume.

Among the essays on diseases of the spinal cord, we would especially mention that on "Tetanus," as containing not only an elegant abstract of the state of our knowledge of its causes and pathology, but also a valuable suggestion as to treatment. Alcohol has been long recommended, and often used without any very certain benefit—that is, in ordinary doses. Now Dr. Radcliffe would very much increase these; he would give it, in fact, in unlimited quantity, not checked by the supervention of intoxication. The satisfactory results obtained by what seem almost poisonous doses of alcohol in several instances of serpent-poisoning, are a rational ground for a hope of success in tetanus.

"Spinal irritation" had better have been included in the first part of the volume under "Hysteria;" for the few facts which it adds concerning the hysterical tripos (as Dr. Briquet calls the three tender points of spine, spleen, stomach) do not require a separate heading. Much harm is done to all parties by their discussion—to the patients by concentration of their attention on these points, and to the Doctors by the *fata morgana* of a false pathology. The author is, however, right in drawing attention to the relief often following the application of blisters, or even a few leeches, to hysterical spots. It arises, probably, from a reactionary renewal of the activity of the circulation.

Under the title "Epidemic Cerebro-spinal Meningitis" the reader will find the first systematic abstract of that terrible fever, by Mr. Netten Radcliffe. It is very interesting, and all the more because, the literature being all so recent, it is not burdened with those ghosts of a bygone physiology which one does not know whether to respect for their ingenuity or to reject for their error.

Among local diseases of the nerves "neuralgia" is well handled by Dr. Anstie. He makes an important observation with regard to what is commonly called hyperæsthesia of the diseased parts—namely that their tactile sensibility is very much diminished. It is evident that one by one we are clearing our pathology of those *hypers* which record the faith of our forefathers in morbid phenomena being exaggerations of vital actions. One by one, doubtless, we shall learn that all diseases are deficiencies of life, and that all cures are its renewal.

(To be continued.)

GENERAL CORRESPONDENCE.

THE ELECTION OF PRESIDENT AT THE ROYAL COLLEGE OF PHYSICIANS.

Letter from Dr. C. J. B. Williams.

[To the Editor of the Medical Times and Gazette.]

Sir,—Although I cannot but consider as complimentary the terms in which you have mentioned my name as one which it had been resolved to put forward on the occasion of the election of President, yet I think it right to state that, until your notice appeared, I was quite unaware of any such resolution, and had I been consulted I should, under the circumstances, have deprecated any interference with the re-election of the President. I am, &c. C. J. B. Williams.

THE MEDICAL OFFICERS AT NETLEY AND THE VOLUNTEER MEDICAL OFFICERS.

Letter from Dr. John Murray.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you allow me to inform the Volunteer Medical officers who may attend the review at Portsmouth on Easter Monday, that Professor Longmore has expressed, through Mr. Ernest Hart, the desire of the Medical staff at Netley to offer any courtesies or assistance in their power on the occasion? Professor Longmore intimates that they will be happy to see the Volunteer Medical officers at mess on their return, if possible, or to afford any opportunity of showing the splendid establishment at Netley, its museums, etc., to any one who may come to see them. It is, I fear, too late to make any proper arrangements in this matter, or, at any rate, to do so in time for publication in your columns; but, to use the cordial and hearty words of Professor Longmore, "The Medical officers at Netley are anxious to do everything that they can to be of use on this occasion. They only want to know in what way they can be of use." I am sure these kindly and generous words will be read with pleasure by every Volunteer Medical officer, and will excite feelings of reciprocal and hearty good will. I am, &c.

John Murray, M.D.,
Hon. Sec. Volunteer Medical Association.

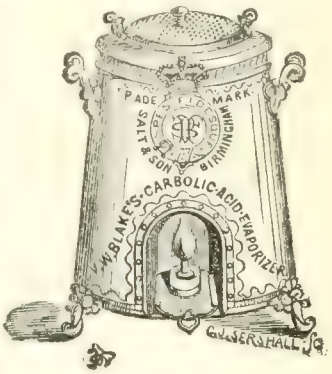
Bryanston-street, Portman-square, April 7.

TREATMENT OF HOOPING-COUGH BY THE INHALATION OF CARBOLIC ACID.

Letter from Mr. V. W. Blake.

[To the Editor of the Medical Times and Gazette.]

Sir,—Many of my patients suffering from hooping-cough having derived great benefit from the inhalation of carbolic acid, I have designed a simple apparatus, manufactured by Mr. T. P. Salt, of Bull-street, Birmingham, for the evaporising and diffusing of the carbolic acid in the atmosphere of the rooms occupied by the patients.



The effect of its inhalation on hooping-cough is marked by its quickly reducing the frequency of the cough and cutting short the spasmodic paroxysm. I have some cases of phthisis pulmonalis under the same treatment, which, I have every reason to believe, are much benefited by its inhalation.

As a fumigator and a disinfecting agent in fevers, etc., I think the evaporiser will prove very useful, and I now invite my Professional brethren to make trial of it. In hooping-cough its success is very great. I am, &c.

V. W. Blake, F.R.C.S.

6, Old-square, Birmingham.

CASE OF EMPHYSEMA.

Letter from Mr. John Parks.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following is a case of emphysema that has recently come under my observation:—

J. P., aged 50, formerly a sergeant in the army, had been under my care for several months suffering from phthisis. Early one morning, whilst coughing, he was seized with a severe pain in his throat, and immediately afterwards, on attempting to speak, he discovered his voice had almost gone. On examining his neck the following day, I discovered crepitation on the right side, and extreme tenderness at one spot on the right side of the larynx. I could trace the crepitation beneath the right clavicle, along the streak of the vessels of the arm and forearm to the wrist; also beneath the integument covering the right side of the chest. The plan I adopted was to have all the parts thus affected firmly compressed by bandages, to order perfect rest, and forbid speaking, giving at the same time tonics and a good nutritious diet. Under this treatment the air became absorbed at the end of ten days, and the pain in the larynx gradually disappeared, the strength of the voice also returning. It is now about six months since the symptoms above detailed took place, and during that time he has had no recurrence. Nevertheless, the pulmonary affection still exists, and is increasing.

The above was evidently a case in which the cartilage of the larynx gave way, probably from ulceration, and accelerated no doubt by the coughing. It is peculiar in its not forming an abscess externally, but simply ending in air being diffused through the cellular tissue. I am, &c.

Bury, Lancashire. John Parks, M.R.C.S. Lond.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 24, 1868.

Mr. HENRY LEE, F.R.C.S., Vice-President, in the Chair.

A PAPER, by Dr. Christie, of the North Riding Asylum, Clifton, was read on a

CASE OF DEFICIENT CORPUS CALLOSUM.

A patient, aged 20, died; and it was found at the autopsy that the corpus callosum was wanting. He had been idiotic and without the power of speech from birth. The calvaria was small, dense, and shelving off considerably in the anterior portion. The encephalon was very small, and weighed only 28¾ oz The specific gravity of the grey matter was 1040, and of the white 1045.

Dr. BALLARD thought the absence of the body was pathological, not congenital.

Dr. WEBSTER spoke of the rarity of such cases in the insane.

Dr. MERYON observed that there ordinarily was defect of mind in these cases, which had an important bearing on the question of aphasia. In two cases reported by Mr. Paget and by Mr. Solly respectively, the power of speech was present; in all others it was absent. Abercrombie's cases went on to complete loss of mind.

A paper, by Mr. GEORGE W. CALLENDER, was read, being

NOTES RESPECTING NON-UNITING FRACTURES.

After referring to the statements made by Amesbury and Hamilton respecting non-uniting fractures, the author relates a series of cases to show that the union of a broken bone is never prevented, although it may be delayed, by constitutional causes. Instances are given of the repair of fractures in cases of recent and long-standing paralysis, and cases of non-union occurring during childhood are incidentally referred to. The results of the treatment of fractures at St. Bartholomew's Hospital during the past seven years are mentioned; also the history of a case of non-uniting fracture of the thigh, and cases of non-union from special local causes. It is concluded that three well-defined varieties must be enumerated of fractures which fail to unite:—1. Fractures, not inaptly termed spontaneous, which ensue from diseases of bone; in which it is evident that no union is likely to take place. 2. Fractures (*a*) with separation of the bone and periosteum to such an extent that there cannot be thrown out bone-material enough to fill up the gap between the fragments; (*b*) occurring through bones not provided with periosteum, when it is difficult to keep the broken ends together. 3. All fractures other than the preceding; and in these cases, although union may be delayed, it never ultimately fails, except as the result of bad management of the injury. Several cases are narrated to show the effect of non-uniting fracture upon joint movements, and the treatment of those injuries where the thigh is the bone involved is briefly referred to. Cases are cited in illustration of the great length of time after the lapse of which a fracture, if properly treated, may be repaired, and the occasional good results from mere fibrous union are illustrated by pathological observations. The question of joint-stiffness after fractures is considered, and the importance of not interfering with such stiffness until the fracture is firmly united is insisted upon, and reasons are given for the presumption that such premature interference by the use of passive movements is a frequent cause of non-union. The following are the conclusions arrived at:—Non-union of an ordinary fracture should never occur. Under careful treatment bones will unite two years or longer after the occurrence of the fracture. It is reasonable to suppose that such fractures would have united at an earlier period, if properly treated. Treatment of delayed union should consist—1st. In the improvement of the health, and in the avoidance of local obstructions to the circulation. 2nd. In placing the broken bone in the best position attainable. 3rd. In leaving it at rest until it unites, its doing so being simply a question of time. 4th. In avoiding all attempts to overcome the stiffness of joints adjacent to, but not involved in, a fracture, until the bone is firmly united; and this applies also to the management of fractures which unite in the usual time.

Mr. WEEDEN COOKE observed that there were many fractures brought into the Royal Free Hospital which were ordinarily treated by the House-Surgeon, and he thought that subsequent interference did no good. Very rarely they had want of union, although patients sometimes remained a good long time in Hospital. Sometimes they found that the decoction of hartshorn did much good.

Dr. WEBSTER remarked that, as to the age at which union might take place, he had not long ago seen at Naples an old woman said to be 113 years of age. The shaft of her thigh-bone had been broken, but the Surgeon declared that it was firmly united.

Mr. HOLTHOUSE thought that Mr. Callender differed materially from Hamilton, who advocates early getting about as conducive to rapid recovery. So also did White, of Manchester. He was opposed to any motion of the bone, and therefore approved of fixed apparatus. If the health suffered, union might be delayed, as in the case of a butcher who was long ill, but rapidly recovered when his diet was improved.

Mr. CURLING failed to realise any special point the author attempted to bring out of his paper. He thought that non-united fractures rarely occurred in Hospitals, but rather at sea or where careful treatment was impossible. He greatly approved of the perseverance recommended. He narrated the case of a man who was wounded, and had his humerus broken. At the end of seven months he was recommended to go home, as no union had taken place. Six weeks after firm union was obtained. He had heard of cures after two years, but had not seen any. He sided with Mr. Callender rather than with Hamilton in the treatment of deferred union.

Mr. T. SMITH could not but think that failure was too often attributed to bad treatment. He thought Mr. Callender was right in the principles laid down by him, but what was to be done at the end of the two years? He would classify such cases into two groups, those of fibrous union and those of false joint. He would take the latter. No keeping at rest was likely to be of use here, although in the other group it might succeed. He thought that if in a child union were delayed for a year, it probably would be so for life.

Mr. BIRKETT, in looking back, could recall very few cases of ununited fracture at Guy's. He remembered one under the care of Mr. Bransby Cooper, another a simple fracture of the humerus, and a third of the tibia and fibula, the tibia being much comminuted. In his own practice one had occurred, being a compound fracture of the humerus. He used ivory pegs twice, and it did well.

Mr. EASTES said that another at Guy's had been related to him, the case being one of simple fracture of the tibia and fibula. The man never ate vegetables, and when these were ordered union rapidly resulted. Another had been in Mr. Hilton's ward, the tibia and fibula being broken. There was much œdema, and a tourniquet was applied to the part. The fracture improved.

In the course of his reply, Mr. CALLENDER stated he was of opinion that the plugging of venous trunks had an important bearing on the healing of fractures.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 17, 1868.

J. SIMON, Esq., F.R.S., President, in the Chair.

MR. GAY exhibited three specimens of

VENOUS CLOTS FROM THE SAPHENA, FEMORAL, AND POPLITEAL VEINS.

They were different from ordinary thrombi. Organic union of a fibrous character had taken place with the walls of the vessels. Mr. Gay thought that such cases were more common than was supposed; that the blood was more prone to coagulate in the veins than the arteries, that the clots became attached to the walls of the vessels, and that the blood again passed along their channels.

Dr. MURCHISON showed a

HYDATID TUMOUR OF THE LIVER,

communicating with the common bile-duct, the specimen having been taken from the body of a female who died in the Middlesex Hospital. There had been a swelling in the region of the liver as long as she remembered. She had suffered during the last three weeks from symptoms of peritonitis and jaundice. The opinion formed was that the cyst had burst into the bile-duct. The tumour afterwards enlarging,

it was punctured, and a large quantity of pus and secondary vesicles drawn off. The cyst was washed out with carbolic acid lotion several times a day. She died ten days afterwards, when a large cavity was found containing half a pint of bilious fluid with collapsed cysts. The opening where the cyst had given way, and which communicated with the bile-duct, was blocked up by a vesicle. Dr. Murchison said that the patient almost invariably died when the cyst was connected with the bile-duct.

Dr. MURCHISON next exhibited two specimens of

KIDNEYS WITH ENCYSTED CALCULI

from a patient who had passed a quantity of cholesterine during life—an extremely rare occurrence. The patient was 45 years old. When about three years old he had passed blood in his urine after an injury to his side. He had since passed blood and pus from time to time, and for the last six months he had done so constantly. On admission he was passing a large quantity of ropy mucus, with abundance of well-marked cholesterine crystals, and continued to do so until his death by coma five days afterwards. Urea was found in the brain. The right kidney was one large sac, and the opening into the ureter was blocked up by a calculus. In the left the calculi were much larger. It was found that scarcely any cholesterine was present in the left kidney, but that there was abundance in the right, which had become almost blocked up. The bladder was perfectly healthy. The pus passed during life was not healthy; it was very alkaline, probably from retention in the kidney.

Dr. MOXON showed specimens from a case of

ABSCESS OF BRAIN AND OF SPLEEN IN ULCERATIVE ENDOCARDITIS.

These specimens are from the body of a young man who was admitted to Guy's Hospital under the care of Dr. Wilks. He had the conditions of mitral disease—a systolic bruit at the apex and congested viscera, with dropsy. During the time he lay in the Hospital he had an attack of right hemiplegia with aphasia, and at that period and subsequently he was in a feverish state. On examining the body, the heart was found to be somewhat increased in size, its mitral valve was much diseased, many of the chordæ divided, and others covered with granulation-growths, which united them in large warty-looking masses; many parts of these warty-looking masses had an eroded appearance. On opening the Sylvian fissure a plug of substance like that of the granulations on the mitral was found impacted in the Sylvian artery, the artery before and behind that plug being quite free from clot. At the spot where this plug lay there was an inflamed patch of brain in a state of red softening. Deeper in the brain, yet continuous with this inflamed part, was an abscess; the pus in this was greenish and semi-tenacious, as pus in the brain always is. The spleen had discoloured patches in various states. Some turned out on section to be large abscesses, containing greenish, almost glutinous pus, entirely unlike softened fibrin. The arteries corresponding to these patches in the spleen had plugs in them, consisting of the same granulation-like substance as that on the mitral valve. The hepatic artery had similar plugs in many of its branches, and the liver showed nearly everywhere a curious state, having points of viscid pus of about the size of millet seed, or in a few cases of lentils. The joints were healthy. There was no sign of pyæmia in the lungs, but the usual yellowish wedges were present in the kidneys. Should it be called pyæmia? He thought it should. The pus in the brain, liver, and spleen was fully developed laudable pus. Perhaps it would be well to sharply distinguish between those cases of pyæmia in which we can observe the substance by means of which the suppurating cause is conveyed from place to place. It is worth noting that the abscesses in this case arose in parts attacked in ordinary embolism from cardiac disease, and not in the parts usually subject to pyæmic suppuration from external wounds.

Dr. MOXON also showed a specimen of an

INFLAMMATORY GROWTH FILLING THE SINUSES OF THE DURA MATER.

This specimen was taken from a man who was admitted into Guy's Hospital for symptoms resembling delirium tremens, together with signs of disease about the cranium, including great swelling, especially near the ear. The swelling was remarkably brawny. On inspection, the cranium and the parts covering it were in a remarkable state. The scalp was indurated, and beneath it, in and about the pericranium, was a soft vascular fleshy substance about two lines thick in some parts, but in others much less in thickness. This substance covered the affected part of the cranium, which was three-fifths of the calvaria about the vertex, extending towards the ears. The diseased part of the bone had a worm eaten look. The erosions were filled with the fleshy substance described as beneath the pericranium. It was only on feeling the sinuses that their remarkable state was found out—they felt as thick and solid as one's finger. Such a state suggested that we should find them full of ante-mortem clot, but on attempting to open the longitudinal sinus no channel could be found. Transverse section showed the sinus to be thickened with exactly the same kind of vascular material as that outside the cranium. The minute vessels in this fleshy matter could be easily seen; in the widest parts of the longitudinal and lateral sinuses a probe could scarcely be got to pass, and when the sinus was squeezed, only a drop of pus-like liquid exuded. Following the petrosal and cavernous sinuses, these had less thickening of the walls, but their channels were occupied by what appeared to be laudable pus, in which no admixture of blood was present. It appears impossible that the life of the brain could have been maintained for a sufficient length of time to allow of the formation of pure pus-like matter in the blood-channel of the sinuses, seeing that the sinuses form the only means of returning circulation from the brain. I should add that the internal jugular veins were found obliterated by swelling of their walls for one inch and a half below the skull; no clot was present in them.

Mr. BRUCE and Dr. WEBER referred to somewhat similar cases.

In answer to Mr. Adams, Dr. MOXON said that he believed the mitral disease to be of a rheumatic character, as the patient had a rheumatic attack before, and the original disease of the valve was supposed to have been a consequence of that attack. In answer to Mr. Spencer Watson, who had observed, in similar cases, that the abscesses were of a green colour, Dr. Moxon stated that the abscess in the spleen was so; but he did not observe it in the others. In answer to Dr. Murchison, who stated that the case was perhaps only plugging of the vessels, and not pyæmia, Dr. Moxon stated that if merely plugging, there would have been atrophic supply to the part; but here there was something active. Mr. Hulke mentioned two cases which he had seen; and stated that an embolus might produce atrophy of a part, and, in pyæmia, suppuration of a part, the nature of the plug begetting a like change in the surrounding tissues.

Mr. DAVY exhibited a congenital cystic tumour taken from the coccygeal region of a child.

Dr. WARDELL, of Tunbridge-wells, presented a

MYELOID TUMOUR OF THE BRAIN

from a male aged 31, who suffered from an injury to the head when 6 years old. In September, 1864, he fell down in a fit. He had then been benefited by bromide of potassium. In May, 1867, he had an epileptic fit, and he died in October. There was found a small mammillated tumour enveloped in a semitransparent capsule, about the size of an orange, in the right hemisphere. The dura mater was strongly adherent at this part. It presented microscopically the usual characters of myeloid structure. In this case the tumour was present at the part where the patient had received the blow twenty-five years before. It had been of slow growth, as these tumours generally are.

Dr. WEBER exhibited two specimens of "Ainhum," which were referred to Mr. De Morgan and Mr. Wood.

Mr. T. SMITH showed a fatty tumour, which had originated in the bony tissue of the radius of a child, and had presented all the characters of a malignant or fibrous formation.

Mr. SMITH next presented a malignant tumour from the pelvis of a child, which had caused difficulty of defæcation and total retention of urine. The bladder had been punctured above the pelvis. After death a tumour, containing cysts and blood, was found between the bladder and rectum, pushing up and thickening the former.

Mr. BRUCE exhibited a living specimen of malformation of the hand and forearm.

Dr. AUGUSTUS BROWN showed for Dr. Walker an extraordinary specimen of

STONE IN THE BLADDER,

taken from a man aged 42, who had suffered for twenty-five years from symptoms of calculus in the bladder. He drank gin and beer. He had been sounded many years ago, but it was then doubtful if anything was present. An operation

had lately been proposed, but he became ill, and died a few days afterwards comatose. The bladder was found contracted, the mucous membrane ulcerated, and the ureters dilated. The kidneys were not examined. Three calculi were found in the bladder; one weighing three-quarters of a pound, less twenty grains; the second half a pound, less forty grains; the third forty grains; collectively amounting to about one pound and a quarter.

Mr. H. Arnott exhibited a specimen of

EPITHELIOMA OF THE RECTUM,

taken from a patient under the care of Mr. Nunn, at the Middlesex Hospital. There were also present tubercles in the lung, and tubercular ulceration of the intestine—a rare combination. It was referred to the Morbid Growth Committee.

Dr. Payne showed a

SPLEEN AND GROUP OF ENLARGED LYMPHATIC GLANDS,

from a youth who had been under the care of Dr. Sibson in St. Mary's Hospital. He complained of dull aching pain in the hypogastric region, extending down the legs. Jaundice ensued from pressure on the bile-ducts; profuse epistaxis came on, and he died comatose seven weeks after admission. The mass of glands had extended from the left inguinal region as far as the diaphragm, and was attached to various abdominal organs. The spleen was mottled with various masses, and the liver was also affected. Some parts of the tumour showed ordinary gland growth; others, again, were fibro-plastic. The general character of the case was neither tubercular, malignant, nor fibro-plastic.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, March 4, 1868.

Dr. Braxton Hicks, Vice-President, in the Chair.

Dr. J. Braxton Hicks read

A CASE OF CÆSARIAN SECTION.

The operation was performed by Dr. Hicks on a deformed woman, aged 37, who did not come under his observation till past the seventh month of pregnancy. The pelvis was found to be of the malacosteon type, and although the brim was much distorted, yet, had the outlet been good, delivery might have been effected through it. Yet, as the bony outlet was very much narrowed, the parts very rigid, even when examined under chloroform, Dr. Hicks, after careful consideration, thought that the balance of chances was in favour of Cæsarian section rather than craniotomy, because it might have necessitated Cæsarian section after all. The length of the abdomen was very small, pushing the fundus of the uterus forward, and this would have added to the difficulty of employing the crotchet, which would have been the only tractor capable of being used. The operation was done in the usual way, under chloroform, at the eight and a half month, two doses of secale preceding it. No difficulty arose during its performance; the uterus contracted well without hæmorrhage; the wound was not closed with sutures. Vomiting came on immediately, which caused expulsion of the uterine discharges through the wound. This subsided gradually till thirty-six hours after the operation, when the discharges ceased to flow per vaginam, but, vomiting having recurred, they were extruded through the lower part of the external wound. From this time tympanitis came on, and rapid pulse with vomiting. A catheter was passed up the os uteri, and then a tent, but no further secretion took place per vaginam, and she sank about ninety-six hours after the operation. About twelve hours before death, the tympanitis having distressed her exceedingly, Dr. Hicks tapped the flatulent intestine with a very fine trocar and canula, letting off a large quantity of flatus, to her great relief—so much so, that when it had reaccumulated she begged to have the tapping repeated, which was done with the same result. The child lived a month, and died of thrush. The post-mortem showed a general blush over the peritoneum; no blood in cavity; a trace in the line from uterine opening to the external wound; a patulous everted wound in uterus; a long cervical canal not impervious; the uterine cavity entirely clear and healthy. Dr Hicks dwelt in his remarks (1st) upon one disadvantage of operating before labour had set in, from the tendency to closure of the cervix; (2nd) on the question of closing the uterine wound or not. He thought in this case, had the wound been closed, the serious complications would not have occurred. If it were found practically that the stitches were torn out, perhaps one might take a hint from some of the successful cases where the uterus had adhered to the parietal wound, and suggested that we might carry the same suture through the external and uterine walls, whereby the intrusion of the uterine secretions into the peritoneal cavity would be prevented—at any rate it could not make matters worse than they now are. He then considered the state of the uterus with two holes in it, one three times the size of the other. There was, when any pressure, as of vomiting, occurred, three times at the least greater tendency to flow out of the wound than from the cervix, and there was much more tendency in the cervix to contract than the wound. He thought the vomiting from chloroform a great danger in these cases, and inclined with Dr. Greenhalgh to the use of the ether spray. He finally remarked upon the mode of tapping the bowel in extreme tympanitis, that he had employed it in four cases with great relief, and without any mark of the operation afterwards, either by inflammation or extravasation of fluid or gas.

Mr. Spencer Wells said that when he first suggested the use of sutures to close the opening made in the uterine walls, at a meeting of the Society in 1863, as a means of preventing the escape of blood or other fluid into the peritoneal cavity, and thereby lessening mortality after Cæsarian section, he had not tried the plan, nor had it ever been tried so far as he knew. And some speakers at the meeting thought the sutures not only unnecessary, as the uterine contraction would close the opening, but might be injurious by setting up metritis. But in 1865 he had put the plan into practice in the only case in which he had performed Cæsarian section. The case was published in the journals of that year, and he had recently seen the woman quite well. He used a long piece of silk as an uninterrupted suture, leaving one end hanging out through the cervix and vagina. By pulling on this end the suture was removed after several days. It served a useful purpose also by maintaining drainage of the uterine cavity downwards. Perhaps in cases of ruptured uterus the patient would have a better chance of recovery if the child were removed through the abdominal wall, and the uterine opening closed by suture, than if the child were removed by tedious obstetrical operations.

Dr. Barnes observed that the pelvis seemed to be an example of Naegelé's *pelvis obliquè-ovata*, as well as being generally contracted. He did not believe that in this case anything could have been gained by dilatation. He had never forgotten the case related by Dr. Tyler Smith some years ago, in which he had been able to complete delivery after craniotomy by dilating the pelvis. The possibility of opening up an osteomalacic pelvis so as to make room for the passage of the child should always be borne in mind. He remembered a most interesting illustration. A young Physician had invited a number of *confrères* to witness a Cæsarian section. Everything was prepared for the operation, when Osiander requested permission to examine the patient. He examined so well that he dilated the pelvis, turned and extracted a living child, and thus baulked the operator of his operation. With reference to the question of delivery by craniotomy in the case under discussion, he was firmly convinced that if it had been possible Dr. Hicks would have done it. The demonstration he had given in that room of the mode of performing craniotomy by taking off the calvarium and bringing down the face was enough to show that Dr. Hicks was prepared to carry out the operation to the extremest possible cases. But this mode was more adapted to cases of pelvis flattened from behind forwards than to such a case as the one before the Society.

Mr. Rowling then read a paper on the

HISTORY OF THE FLORENCE NIGHTINGALE WARD IN KING'S COLLEGE HOSPITAL.

The author commenced by relating the circumstances under which the Nightingale Ward was founded, for the purpose of instructing duly qualified midwives to be employed in attending on the poor under proper Medical supervision. He referred to the conditions upon which Dr. Arthur Farre, at that time Physician-Accoucheur to the Hospital, had insisted before consenting to take charge of the Ward, and described the arrangements for securing as far as possible the safety of the patients. The most elaborate precautions had been taken by Dr Farre for the purpose. The long ward was only employed for con-

valescent patients. There were two separate delivery wards, which were used alternately for three weeks at a time, and in the interval the empty room was thoroughly cleansed and disinfected. Each patient had 3200 feet of breathing air. All students engaged in dissecting, or in attending the Surgical practice of the Hospital, were prohibited from entering the ward. Mr. Rowling then proceeded to give the statistics of the deliveries, and showed that in spite of every care the mortality had increased each year; the average mortality since the ward was opened having been 1 in 28·9 cases. He described the causes of two deaths that had occurred, and their most prominent symptoms, and finally mentioned that this great mortality had determined the Hospital authorities to close the department altogether.

Dr. Barnes said that no paper was more deserving of record in the *Transactions* than this, in order that it might stand as a warning against the repetition of the most disastrous experiment related. It had been said that history repeats itself. But why did history repeat itself? Simply because her plainest lessons were wilfully disregarded. Was it necessary, at the sacrifice of the lives of so many women, to repeat an experiment which ample experience in every country had over and over again proved to be so fatal? He felt bound to say that this tendency to repeat a fatal mistake was more the fault of the lay members of society than of Medical men. He did not suppose that any Physician in the room would now advocate the establishment of a lying-in ward in a general Hospital. Dr. Farre had never approved of it. He himself had strenuously resisted a proposition at one time contemplated to establish a similar ward in the new St. Thomas's. A Lying-in Hospital was bad enough, but a lying-in ward attached to a general Hospital was a sin against humanity. Was it not shocking to offer, in the name of charity, to poor women looking to you for help a succour that would only too probably be charged with death? So deeply had the mortality of Lying-in Hospitals—even of those constructed with every care that modern research could devise—impressed many of the most eminent men in Paris, that the expediency of suppressing these Hospitals and of substituting home-midwifery, was now admitted. In his conversations with continental Professors he had found few who contended that Hospitals were desirable for the patients. The general argument for Hospitals was that they were necessary for the purposes of instruction. Well, we taught midwifery here, and we saved our women.

Dr. Graily Hewitt wished to make one remark on this subject. Lying-in Hospitals as they had been organised up to the present time were most undoubtedly objectionable. The secret of the successful treatment of lying-in cases was isolation. The moment cases were congregated together in one apartment puerperal fever was likely to be generated. If the patients were isolated from each other by suitable means and in suitable buildings, there was no reason why the mortality should be higher in a Lying-in Hospital than elsewhere, but in the existing Hospitals these precautions had not been attended to.

Dr Playfair said that he could most cordially agree with all that Dr. Barnes had stated as to the dangers of Lying-in Hospitals in general. It must not be supposed, because a midwifery department had been established in a general Hospital, that the obstetric staff were in favour of the experiment. They had all a ong recognised the great danger to lying-in patients in such a situation, and it was on their urgent representation that it had been closed. As long as it existed they had done their best to make the hygienic arrangements as perfect as possible, and now that it had been closed they had made no attempt to conceal the disastrous results of the experiment. The position of the ward itself was peculiarly unfortunate, being situated at the top of the Hospital, above two stories of wards and by the side of the large central staircase, which, acting as a ventilating shaft, of necessity carried past it air saturated with the emanations of the Surgical wards below. It would doubtless have been much better if the ward had originally been placed on the basement story. The outbreak of puerperal fever constantly coincided with the presence of erysipelas in the Surgical wards, and this seemed to be a conclusive argument against the theory broached in a late paper read before the Society that zymotic diseases were not modified in the puerperal patient. In none of the cases were the symptoms at all those of erysipelas, although the latter disease had attacked a child whose scalp had been injured by the forceps, and doubtless from the same poison as had given puerperal fever to the mother.

NEW INVENTIONS.

TAYLOR'S MARAVILLA COCOA.

Tea, coffee, and cocoa, the three established beverages for our lighter meals, each present several varieties, adapted to different tastes and wants of the healthy and sick. Some are more astringent, and cleansing to the tongue; some of higher flavour or perfume. And again, there are great diversities in that *body* or ingredient which affects the *taste*, as contradistinguished from flavour. The carefully manufactured article before us is distinguished by a very light and delicate flavour, and by a certain fulness and smoothness of taste, which bespeak a large share of nutritive, in addition to the stimulating, ingredients. It is, therefore, well adapted for children and invalids, whose nourishment requires to be maintained, whilst we cannot conceive of its being other than agreeable to every person who uses cocoa as an habitual beverage.

NEW BOOKS, WITH SHORT CRITIQUES.

The History of Anæsthetics from an American Point of View. Edinburgh: Edmonston and Douglas. Price 6d. With Preface by Professor Syme.

*** Professor Syme has paid the most skilfully devised and delicate compliment possible to the genius of his colleague, Professor Simpson. It is well known that the invention or revival of the use of anæsthetic vapours is due to the Americans, Morton or Jackson, or both. The anæsthetic which they used was ether, and although Sir James Simpson's discovery of the superior properties of chloroform has thrown ether into the shade in most civilised countries, still some of the Americans cling to it with a national predilection which is excusable. But nothing shows so fully the superior virtues of chloroform as the very estimate which the Americans make of the relative value of the two anæsthetics, and thus Professor Syme has been enabled to pay homage to Sir J. Y. Simpson by republishing *verbatim* the "History of Anæsthetics" contained in the late eminent Dr Warren's "Surgical Observations." Dr. Warren, while claiming for his own townsman in his own city (Boston) the rightful merit of precedence in using ether, yet admits frankly that chloroform is "in some cases preferable to any known anæsthetic, being far more concentrated in form, more agreeable, and more active in administration;" "on the battle-field especially its greater portability is likely always to secure the preference for it." There is no doubt but that ether, *cæteris paribus*, is the safer, though the less effective, agent; and as everything has its use, there are cases in which ether may be preferable either to chloroform pure, or to chloroform mixed, or to the new chloromethyl introduced by Richardson. Still it is a great mistake to imagine ether a mere plaything. Dr Warren has seen "an unpleasant and prolonged depression occur a number of times, causing considerable anxiety." Not only its bulk, but its inflammability, are important in estimating the relative safety and value of the two agents, especially for field operations. "In one instance, while operating at the Hospital at night on a mutilated finger, the lamp being three feet distant, and a sponge placed over the patient's mouth, the air in the vicinity became saturated with the ether, ignited, setting fire to the sponge, bed-clothes, and even face of the patient. The flames were fortunately, in this case, extinguished without any injury to the patient, but not without causing great fright to those in the neighbouring beds. In another instance, the same accident took place from the introduction of a red-hot iron into the mouth of a patient, from whom the sponge containing ether had just been withdrawn. The flames were fortunately at once extinguished with water, which was immediately at hand." Professor Syme's reprint thus shows the superiority of chloroform, for which by the way, out of 80,000 cases in which it was administered during the American war, fatal results were ascribed to it in seven instances only.

The Principles and Practice of Obstetrics. By Gunning S. Bedford, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics in the University of New York. Fourth edition. New York: William Wood and Co. Pp. 763.

*** The name and fame of Professor Gunning Bedford are not limited to America, for they are well known in Europe. To this reputation this admirable treatise on midwifery has largely contributed. When it first appeared, notwithstanding the disturbed state of America, it met with an unprecedentedly large and ready sale, so that the first two editions were exhausted in a year. To both the last and present editions Dr Bedford has made considerable additions on the subjects of phlegmasia dolens, anæsthesia, and twin pregnancy. In the present edition he adds a new chapter on the complications of pregnancy, such as chorea, paralysis, jaundice, etc., which cannot fail to be useful. The work is well illustrated by woodcuts, which are not hackneyed; and five lithographed plates, representing the mamma at different stages of pregnancy, are really beautifully executed. In conclusion, we cordially recommend this volume to our brethren on this side the Atlantic, and beg to assure them that they will not be disappointed by its perusal.

On Diseases of the Chest: being Contributions to their Clinical History, Pathology, and Treatment. By A. T. H. Waters, M.D., F.R.C.P., Physician to the Northern Hospital and Lecturer on Physiology at the School of Medicine, Liverpool. London: John Churchill and Sons. Pp. 418.

*** Dr. Waters has long been favourably known to the Profession as an earnest and enthusiastic inquirer into the healthy and diseased conditions of the thoracic viscera, and he has here given us the sum of his experience. Dr. Waters's views as to the anatomy of the human lung are here given, and illustrated by several plates, as are certain of the diseased conditions, especially emphysema. Pneumonia is also considered at great length. The other pulmonary affections discussed are œdema, apoplexy, gangrene, pleurisy, phthisis, and apnœa. The lectures on cardiac affections discuss the subjects of heart sounds, pericarditis, fatty disease of the heart, chronic valvular affections, sudden death in relation to heart disease, and thoracic aneurism. The final chapter deals

with the use of alcoholic stimulants. We need hardly say that we gladly welcome a work of this comprehensive character from a Physician who has already earned so high a reputation, both as a pathological and clinical observer.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 7th inst., and, when eligible, will be admitted to the pass examination :—

Conolly, S. F., Charing-cross Hospital.
Crowther, W. E., Guy's Hospital.
Drake, A. J., St. Thomas's Hospital.
Drake, F. H., Leeds School.
Eager, Wilson, Guy's Hospital.
Elphinstone, G. K., Guy's Hospital.
Garratt, William, Guy's Hospital.
Hardyman, E. C., St. Thomas's Hospital.
Hart, E. J., Guy's Hospital.
Hitchcock, H. K., St. Thomas's Hospital.
Hyde, W. D., Charing-cross Hospital.
Kidd, J. K., Charing-cross Hospital.
Langford, P. P., Middlesex Hospital.
Larkin, F. G., Guy's Hospital.
Leigh, R. H., Guy's Hospital.
Lloyd, A. E., Leeds School.
Lucas, R. H., Middlesex Hospital.
Male, H. D., St. Thomas's Hospital.
Mugliston, H. B., London Hospital.
Paget, W. S., Liverpool School.
Ravenhill, E. B., Birmingham School.
Rawlings, J. A., Guy's Hospital.
Rees, Howell, University College Hospital.
Rix, W. K., Charing-cross Hospital.
Robathan, G. B., St. Thomas's Hospital.
Robinson, Tom, London Hospital.
Ross, J. H., Guy's Hospital.
Smith, Edwin, Birmingham School.
Warner, Francis, King's College Hospital.
Williams, Edward, University College Hospital.
Wood, E. B., Birmingham School.
Wray, A. D., Guy's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 2, 1868 :—

Charlesworth, James, Longnor, near Buxton.
Dobson, William, Holbeck, Leeds.
Haigh, Silas, West Lynn.
Manistry, Francis Steuart, Gresford, Denbighshire.
Peirce, James Edward, Gilwern, Abergavenny.
Vance, John, Nut-tree House, Plaistow, Essex.

The following gentlemen also on the same day passed their First Examination :—

Lovell, William Day, Guy's Hospital.
Smith, George, Newcastle-on-Tyne Hospital.
Ward, William Simpson, Lecturer on Medicine

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUTLIN, J. E., M.R.C.S.E., etc.—Honorary Medical Officer to the Liverpool Dispensaries.

COLE, George Charles, M.R.C.S., Surgeon to the Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square, W.

MERYON, EDWARD, M.D., F.R.C.P.—Physician to the Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square, W.

RAINS, JOHN, M.D.—Public Vaccinator to No. 1 District, Chorlton Union, Lancashire.

TOMES, Dr. Medical—One of the Assistant Physicians to Ingleby Chapel Hospital.

BIRTHS.

CARRUTHERS.—On April 3, at 3, Rumford-place, Liverpool, the wife of J. Carruthers, M.R.C.S., of a son.

DOBSON.—On April 1, at the Vicarage, by the Rev. P. M. Dobson, D.C.L., Rector of Bamburgh, Northumberland, the wife of the Rev. Charles Dobson, of a daughter.

HICKS.—On April 3, at Oxford-terrace, Hyde-park, the wife of Edward Hicks, of a daughter.

LEADAM.—On April 4, at Iver, the wife of W. W. Leadam, M.D., of a son.

WILLIAMS.—On April 3, at Wellington-road, Edgbaston, the wife of Edward Williams, M.R.C.S., of a daughter.

MARRIAGES

BUTLER—WILLIAMS.—On April 1, at Christ Church, Barbadoes, Henry Wilberforce Butler, M.D., H.M. Indian Army, Civil Surgeon of Nagpore, Central India, to Anne, eldest daughter of the Rev. T. Williams, Rector of Lawrence, Barbadoes. No cards.

COOKE—WHILOCK.—On April 4, at St. Mary's, Greenhithe, G. R. Cooke, M.R.C.S., to Lucy Mary, daughter of the late Mr. S. W. Whilock, of Birmingham. No cards.

HARTREE—SMILES—On April 2, at the parish church, Lewisham, J. P. Hartree, M.B. Cantab., to Janet, eldest daughter of T. Smiles, Esq., Blackheath.

FITZGERALD—LEAKE.—On April 2, at the Catholic Church, Isleworth, E. M. D. Fitzgerald, M.D., Assistant-Surgeon Army Medical Staff, to Belinda Mary, second daughter of J. Leake, M.D., Langham House, Twickenham. No cards.

DEATHS.

CREGEEN, J. J., M.D., F.R.C.P. Edin., M.R.C.S. Eng., L.S.A., at Upper Brent Cottage, Blackheath-hill, Greenwich, on March 31, aged 41.

GORST, R. E., M.R.C.S., of Heswall, Cheshire, on March 18, aged 54.

PURFOY, J. R., Assistant-Surgeon Bengal Army, at Calcutta, on Feb. 16.

VACANCIES.

GENERAL INFIRMARY, NORTHAMPTON.—House-Surgeon.

ISLINGTON DISPENSARY.—Surgeon.

ROYAL SEA-BATHING INFIRMARY, MARGATE.—Resident Surgeon.

ST. MARY'S HOSPITAL, MANCHESTER.—Honorary Surgeon.

UNIVERSITY OF NEW YORK.—The commencement of the Medical department of the above institution took place on the 3rd ultimo. Professor William Darling, F.R.C.S. Eng., delivered the address. The number of graduates was larger than had been known for seven years, and they were drawn from all parts of the Union; the proportion of Southern men was very noticeable. The *New York Herald* states that while all similar institutions are suffering, the University of New York has a larger class than at any time since the war, owing to the enterprise with which it is conducted and the great advantages it presents to the students.

DIFFICULTY IN THE DIAGNOSIS OF INSANITY.—M. Olivier gives an amusing illustration of this. A Brussels magistrate received letters in which it was stated that all the so-called insane shut up in a certain madhouse had not lost their reason, some of them being the victims of the most odious machinations. Another letter, containing the most touching appeal, induced the magistrate at once to repair to the asylum and insist upon an inspection of its inmates. The director took him to all of them one after another, without anything justifying the denunciations turning up. At last he arrived at the room of an old officer, who was said to have been mad for years. He received his visitor with all the ease of a man of the world, conversed with him with entire good sense, declaring that he was nowise mad, and that he was only so confined out of revenge. So clear were all his explanations that the magistrate, struck with their lucidity, promised to have his case at once looked into and justice done him. "You will save more than my life," replied the officer, accompanying his visitor through the garden to his carriage. The magistrate repeated his promises while placing his foot on the carriage step, his aldermanic proportions forcing him to bend down to enter the vehicle. All at once he felt a smart blow on that delicate part of the body which the shortness of the present garments exposes; and, turning suddenly round, he found the officer, laughing ready to burst in the arms of two keepers. "Why did you strike me, sir?" he exclaimed. "Oh, I'll tell you," replied the lunatic, scarcely able to contain himself; "I can never see such a fine place without being seized with the wish to put my foot on it."—*Presse Belge*, March 29.

IRELAND: HEALTH OF THE PEOPLE.—The deaths registered during the quarter ended December 31, 1867, show a decrease of 1588 as compared with the number registered in the corresponding period of the year 1866, when Asiatic cholera was epidemic. To the mildness of the season and the improved sanitary condition of the country, the lessened mortality during the quarter may be fairly ascribed; for, though scarlatina, measles, and hooping-cough were very prevalent, and very fatal throughout the country, yet the number of deaths registered during the last quarter of 1867 was less than the number registered during the last quarter of any year since the Registration Act came into operation in 1864. Scarlatina was the zymotic disease to which most deaths were ascribed. In the Keady district, Armagh Union, of the 44 deaths registered 15 resulted from scarlatina; in the Banbridge district more than one-fourth of the deaths were referred to scarlatina; at Downpatrick 13 of the 66 deaths were attributed to this disease; in the Bellaghy district, Magherafelt Union, of the 56 deaths registered 16 were caused by scarlatina. The Registrar of the Palmerston district, South Dublin Union, remarks that

"scarlatina has been epidemic during the quarter of a mild form except in one locality (Island-bridge), where 4 deaths occurred out of 5 cases in the whole district. I attribute this to a sand-pit having been filled up with refuse vegetable and other matter." In Cork City No. 2 (North) District, 31 of the 89 deaths registered were caused by scarlatina. Hooping-cough and measles caused many deaths. It is satisfactory to observe that the "Compulsory Vaccination Act" has been highly successful, for, during the year 1867, the total deaths from small-pox registered did not amount to more than 20; whereas in the year 1864, in which the Act came into operation, no less than 854 deaths were caused by small-pox. There have been few unfavourable reports of the sanitary condition of the Registrars' districts. The Registrar of Caherconlish district, Limerick Union, makes the following statement:—"Fever, though not virulent, has never quitted one portion of the district since my appointment, which I attribute to want of cleanliness on the part of the poor occupiers, and it not being a police patrol district it is entirely neglected." The poisonous effects resulting from the noxious effluvia from sewers, are well illustrated by a death from cholera, registered in the Mitchelstown district, Mitchelstown Union; the Registrar of the district observes that "the deceased was a mason, and was employed at work over a very foul sewer when he first complained."—*Quarterly Return of the Marriages, Births, and Deaths registered in the Divisions and Districts of Ireland.*

A Sure Sign of Death.—M. Martenot de Cordoux, of the Lyons Military Hospital, states the following as an infallible means of deciding on the certainty of death—a matter of more importance on the Continent than with ourselves, owing to the precipitancy with which interments occur there. Bring the flame of a candle in contact with a finger or toe for a long enough time to raise an ampulla or bladder. If this contain serosity, life is certainly still present, while, if it burst, discharging nothing but vapour, life is as certainly extinct. In one word, a dry vesicle is the sign of death, a liquid one of life.—*Gaz. Méd. de Lyon*, March 1.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Argus.—No award has been made. The Council will meet on Monday next, and decide this matter and the future subjects for competition.

Inquirer.—Mr. Edward Hooper May, of Tottenham High Cross, is a Fellow of the College by examination. His colleagues are Mr. Ernest Groth, L.R.C.P. Lond., and M. Laseron, M.D. Jena, at the Bethesda Free Hospital.

A Fellow.—The Members of the Council of the Royal College of Surgeons are registered as holding the qualification of "*Fellow*" only, although all possess other qualifications.

A Surgeon.—1. Yes, being a Licentiate of the King and Queen's College of Physicians of Ireland. 2. The Medical Act enables him to recover for all medicines and appliances.

Mr. Macpherson, R.N.—You will find a record of two cases of umbilical hernia, in which the sac was pushed back with the intestine, reported in the *Medical Times and Gazette*, vol. xxviii., p. 382, as occurring in the practice of Mr. James Paget. Mr. Luke's paper on the subject will be found in the *Transactions* of the Medico-Chirurgical Society, vol. xxvi.

Medical Practitioners and Coroners' Inquests.

To the Editor of the Medical Times and Gazette.

Sir,—I was peremptorily summoned at 4 p.m. on the 24th ult. to visit a man who had been walked home by two policemen, and was reported to be in a precarious state. I found him apparently in a quiet sleep. The history given was that he had either fallen on the pavement or was accidentally pushed down; that he had taken a small quantity of rum before his fall; and that some one had, after the accident, given him six-pennyworth of brandy. He was about 78 years of age. Respiration was perfectly natural; the pulse natural, 60. He gasped while I was present, and emitted an exclamation such as people frequently do when they gape. I was informed that he spoke, having explained, on his arrival home, where his head had been struck. Being pressed for time to catch a train, I told his friends to let him lie quiet for a time, and to watch the case. At 8 p.m. they sent again, and my dispenser in the City fetched Dr. Dukes, of Brick-lane, who saw him about 10 o'clock. Dr. Dukes states that he was then in an apoplectic state, and visited him again on Sunday. He died about 1 o'clock. I certainly did not feel justified in giving a certificate of death, and Dr. Dukes refused to give one. To the amazement of myself and Dr. Dukes, I was informed on the 24th, at 11 a.m., that there had been a post-mortem performed, and an inquest was to be held at 1 p.m. I went to the inquest, and found Mr Simpson, of Fore-street, present; and he gave evidence that he had opened the head, and found apoplexy the cause of death.

Now, Sir, according to all precedents, either Dr. Dukes and myself should have conjointly performed that post-mortem, or Dr. Dukes alone. About a month ago I was summoned to Mr. Waterlow's, in London-wall, and found a man had just dropped dead from effusion of blood from the lungs: in that case there was no post-mortem or inquest.

A few years ago I was called to an old gentleman who had staggered into a shop and fallen; the bystanders thought him still alive, but I found him just dead. There was an inquest, but no post-mortem, and I was not subpœnaed to give evidence—to save, as I was then given to understand, the expense of my fee. In this third case, I was the only witness of any value, whether as a non-professional or in my capacity of a Medical man.

If such precedents are to be established, the sooner we Medical men refuse to attend to cases of emergency among the very poor, the better, as we shall have all the work, and no contingent remuneration. I do not write this letter so much for my personal benefit as for the sake of a general principle. I have been here (in the City) fifteen years, and have had altogether about eight inquests, including four post-mortems; therefore I have little to lose, especially as my private house is in the West. But, for the interests of the Medical Profession at large, I think such precedents should not be allowed to pass without protest.

April 2. I am, &c. Samuel Clewin Griffith, M.D.

The Invention of the Telegraph.

To the Editor of the Medical Times and Gazette.

Sir,—Your number of this day inquires: "Who first took out a patent for an electric telegraph?" and "Was a one-, two-, or five-needle instrument specified?" The first patent for an electric telegraph was taken out in London, on June 12, 1837, by my brother, Mr. William Fothergill Cooke, and Professor (now Sir Charles) Wheatstone, F.R.S., etc.

Essentially, two distinct forms of instruments were therein specified. The form prominently exhibited was a five-needle instrument, the essential property of which is the indication of signals by the convergence of two or more of those needles. It was accompanied by a key-board of ten keys (two in association with each needle), which was attached to the instrument at pleasure by connecting wires. The drawing of this instrument, however, exhibited in red ink an alternative principle by which each needle is capable of separate use by a "return wire." This principle secured another instrument, the essential property of which is its capacity for signalising by single-needle movements. In this instrument the number of needles is indefinite. One needle only is sometimes used; two, found sufficient for all purposes, is the general number; more than two are never used. The five-needle instrument and key-board are the inventions of Sir C. Wheatstone. The instrument with single movement is the invention of Mr. Cooke, and is the original instrument for which the patent was applied for.

The first two instruments on this single-movement principle, having three needles each, were made for Mr. Cooke at Heidelberg as early as March, 1836. Each needle was worked by one key (equivalent to two keys in Sir Charles's key-board), forming part of the instrument, turning on a horizontal axis, and introducing by an original contrivance the essential property of reciprocal communication, by which any number of instruments are attached to the wires at as many stations. To connect only two stations, the five-needle instrument would, if unassisted, require two sets of wires of five each; to connect 100 stations (there are some 1300 in the country), it would require 9900 sets, or 49,500 wires. Under Mr. Cooke's reciprocal principle, one set of wires throughout the system is sufficient. Mr. Cooke's detector for localising injury to the wires, his methods of insulation, and his alarum, completed the practicability of the telegraphic enterprise as originated and carried out by himself.

Two more instruments on the single-movement principle, exhibiting some unessential modifications, and still with three needles each, together with two instruments by the same inventor, original both in principle and contrivance, of a mechanical form, were constructed for Mr. Cooke to be shown to the Solicitor-General as the complete instruments to be secured by the first patent. The instrument with converging needles being at this juncture invented by Sir C. Wheatstone to be engrafted on Mr. Cooke's system (the key-board had been invented previously), a pasteboard model of this new invention was made by Mr. Cooke at the last moment for inspection by the Solicitor-General. The superintendence of the specification having been undertaken by Sir Charles, he commenced with the instruments invented by himself, and fuller description of those invented by Mr. Cooke, for which separate drawings had been prepared, was prevented by stress of time. Fully to secure the belated matter, a second patent was taken out by Mr. Cooke in England. In Scotland and in Ireland the specification was complete originally.

The prominence of the five-needle instrument in the first patent was unfortunate. In a suit brought by the Telegraph Company against Brett and Little for infringment, which occupied Lord Chief Justice Wilde and a special jury in the Guildhall from February 21-25, 1860, the chief ground of the defence was that the telegraph in the form first specified—viz., the five needle dial and key-board—had never been used. The patent having secured Mr. Cooke's single-needle movement, his reciprocal principle, and his detector, the verdict was in favour of the Company.

The single-needle movement may be seen in operation at any telegraph office. The two specimens of the five-needle dial intended for use may still be seen in Sir C. Wheatstone's own collection at King's College, as may also his key-boards, with the alterations for adapting them to Mr. Cooke's reciprocal system and alarum. Also two working models of those instruments, made for the trial in the Guildhall, may be seen in the telegraph office at Lothbury, where they are exhibited with other objects of interest in the Company's board-room.

The efficiency of the reciprocal principle is described above as fully developed by Mr. Cooke when the telegraph came into use. By certain limitations, which cannot be explained within my present space, it was less perfect when the patent was sealed. The full particulars, accompanied by plates of the instruments, are given in my pamphlet, "Authorship of the Practical Electric Telegraph, or the Brunel Award Vindicated," pp. 21-40.

I am, &c.

4, Johnstone-street, Bath, March 21. T. Fothergill Cooke.

Prescribing Quinine.

To the Editor of the Medical Times and Gazette.

Sir,—The knowledge that great benefit sometimes arises from combining quinine and diuretics induces me to communicate my plan of effecting that object. For some time past I have been accustomed to add sulphate of quinine to the citrate of potash mixture, each grain of the alkaloid having been dissolved previously in from a grain to a grain and a half of citric acid. The resulting dose may be improved by tincture of orange, and, from its clearness, does not disgust like those alkaline mixtures which only suspend the bitter. I have found the combination very useful in cases where quinine was indicated, although the state of the tongue

seemed to forbid its employment. I cannot trace the origin of my practice, but doubt not that it arose from reading Dr Barlow's admirable book referred to by "Medicus." The above mode of dispensing is my own. I would, however, suggest that a fourth salt—the citrate of potash and quinine—should be prepared, for I believe it would soon commend itself to general favour.

I would also mention a plan of having purgine in the form of pill, used by me during many years, although I have not known it to be adopted by others. Where creosote is not likely to be prejudicial, I add a drop of the oil to each mass of the aloe-soap. The bulk of the mass is at once greatly reduced, and becomes quite miscible.

I am, &c. E. G. Wake.

Collingham.

AN APOTHECARY'S WILL ANNO 1598.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any reader of the *Medical Times and Gazette* favour me with a literal translation, or an explanation of the more obscure terms in the following will, which is copied from "Testamenta Eboracensia," published by the Surtees Society in 1836, page 240?

I am, &c. J. D.

Testamentum Constantini del Damme Apothecarii. 1 July 1598. XXVIII. Constantinus del Damme, civis et apothecarius Ebor.—Lego Elizabethe Fendard consanguineo meo certa necessaria shope mee pertinencia videlicet mortaria erea cum pilis ferreis, sarcz, balanc' trobe ferr' cum ponderibus, cista, tubbis, et barellis vacuis, pelvibus operalibus, ij tabell' sarp cum quarellis de vitre, et flakatis peudr', et cerabus in cesicis contentis, simul cum pixidibus, et unguentis et emplastris, cyrotecis, aquaribus et minoribus vacuis, et ij lapidibus marmoreis, cum les shelfs et ollis de geyn, cum ij spiceplates de peudr', spicechargeours depictis, et ollis pro viridi gynger, et les cornedisshes, mortar-tokes, j draghyngdobler, cum les moletts, j holdepanne, spatules, j old tike skipscales, j par de pevetsheres, ij waxladyls, et ij [illegible] (Pr. vij Aug. MCCCXXVIII.)

*** The doubtful words are "sarp," *quære* sarcinis?—"tabulis salviis," —*quære* slabs for evaporating salt on?—"flakats peudr," *quere* pewter flasks?—"geyn," *quere*—"draghyngdobler," *quere*, a machine for spreading plaister?—"Skipscales" and "pevetsheres" are to us unknown.

COMMUNICATIONS have been received from—

Dr M. T. Sadler; Dr. Lawson; Mr J. Chatto; Dr. Hughlings Jackson; Mr. Hutchinson; Mr. T. M. Stone; Mr. J. H. Blackett; Dr. Heslop; D. Z.; Mr. Eyerett; A Subscriber; Rev. T. F. Cooke; Dr. F. W. P. Jago; Mr Bellet; Dr. C. J. Gill; Mr. R. Potts; Dr. C. J. B. Williams; Dr. Dickson, R.N.; Dr. John Murray; Mr. John C. Galton; Mr. G. T. A. Staff; Dr. G. W. Balfour; Look before you leap; Dr. John D. Muter.

BOOKS RECEIVED—

Miller's Elements of Chemistry, Part 2, Inorganic Chemistry, fourth edition—Edinburgh Medical Journal, No. 154—Westminster Review, No. 66—Warren's History of Anæsthetics—Glasgow Medical Journal, No. 2—Pacific Medical and Surgical Journal, No. 6—St. Louis Medical and Surgical Journal, March—Journal of the Scottish Meteorological Society, No. —Lancashire School Medical of Health, New York Medical Journal, No. 20—Diseases of Women.

NEWSPAPERS RECEIVED—

East-end News—Hobart Town Mercury—Tasmanian News—Leeds Mercury—Britain—Daily Post—Medical Press and Circular—Aris's Birmingham Gazette.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 4, 1868.

BIRTHS.

Births of Boys, 1192; Girls, 1183; Total, 2375.
Average of 10 corresponding weeks, 1858-67, 1997·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	658	688	1346
Average of the ten years 1858-67	724·1	682·2	1406·3
Average corrected to increased population	..	..	1547
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.	Cholera.
West ..	463,388	1	8	..	1	5	2	4	..
North ..	6[illegible]	5	3	2	1	10	4	2	1
Central	3[illegible]	2	2	3	3	7	3	3	..
East ..	5[illegible]	5	18	3	2	11	8	6	..
South ..	774,155	4	15	4	4	25	7	8	..
Total ..	2,8[illegible]	17	46	12	11	58	24	23	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·196 in.
Mean temperature	45·2
Highest point of thermometer	66·8
Lowest point of thermometer	28·1
Mean dew-point temperature	38·5
General direction of wind	Variable.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 4, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending April 4	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending April 4	Temperature of Air (Fahr.). Highest during the Week	Temperature of Air (Fahr.). Lowest during the Week	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2375	1441	1346	67·8	28·1	45·2	0·00	0
Bristol (City)	167487	35·7	157	77	180	62·8	30·2	44·3	0·00	0
Birmingham (Boro')	351296	45·6	261	171	176	62·7	30·1	45·7	0·00	0
Liverpool (Borough)	506476	98·6	393	290	281	66·1	37·5	47·4	0·00	0
Manchester (City) †	356855	81·8	286	208	426	62·6	30·9	45·6	0·00	0
Salford (Borough)	117162	22·7	126	80	65	62·6	30·2	45·1	0·00	0
Sheffield (Borough)	252462	10·2	173	122	95	64·1	29·9	44·9	0·00	0
Bradford (Borough)	108049	16·4	83	55	68	..	..	..	..	..
Leeds (Borough)	250746	11·0	213	120	103	62·0	30·5	44·1	0·00	0
Hull (Borough)	105269	30·4	82	50	41	60·0	24·0	42·9	0·00	0
Newcstl-on-Tyne, do.	127701	23·9	114	68	55	56·0	25·0	40·4	0·00	0
Edinburgh (City)	177031	40·6	171	85	87	58·7	30·7	43·8	0·00	0
Glasgow (City)	449508	88·9	388	262	273	57·9	37·3	48·2	0·00	0
Dublin (City and some suburbs)	319085	32·8	179	157	168	63·5	29·6	48·4 ‡	0·00	0
Total of 14 large Towns	6291088	34·7	4971	3103	3053	67·8	24·0	46·0	0·00	0
					Week ending Mar 28	Week ending Mar 28				
Vienna (City)	(1863) 560000	..	..	..	386	..	..	39·7	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·196 in. The barometrical reading increased from 30·49 in. at the beginning of the week to 30·44 in. by 9 a.m. on Sunday, March 29; decreased to 30·20 in. by 9 p.m. on Tuesday; increased to 30·25 in. by 9 p.m. on Thursday; and was 29·87 in. at the end of the week. The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 49·7.

APPOINTMENTS FOR THE WEEK.

April 11. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Royal Free Hospital, 1½ p.m.

13. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Medical Society of London, 8 p.m. Dr. Broadbent, "On Some Exceptions to Dr. Richardson's Proposition on Force in the Animal Body." Thos. Bryant, F.R.C.S., "On Some Simple Affections of the Breast simulating Cancer." Dr. Oppert, "On 'Existing Hospitals.'"

14. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.

Anthropological Society of London, 8 p.m. *Conversazione.*

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Fenner, "Ligature of both Subclavian Arteries in Double Axillary Aneurism." Dr. Bakewell, "On an Epidemic of Typh-Fever in Trinidad."

15. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m., Samaritan Hospital, 2.30 p.m.

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. Meeting.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Mr. Weeden Cooke. "On Epithelioma."

17. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture XI.

TURNING CONTINUED.—THE MANAGEMENT OF CERTAIN DIFFICULT BREECH-PRESENTATIONS.

Before proceeding to the discussion of podalic turning, strictly so called, it will be both convenient and useful to deal with certain cases of difficult breech-presentation. It will be remembered that I defined "*turning as including all those proceedings by which the position of the child is changed in order to produce one more favourable to delivery.*" (See Lecture VI. part i., *Medical Times and Gazette*, December 21, 1867.) Now, the cases of breech-presentation to which I refer cannot be brought to a satisfactory conclusion unless the position of the child, or at least of some of its parts, be changed. They, therefore, fall within our definition. But since the breech or podalic extremity of the child is already presenting, a great part of the end contemplated in podalic turning is already accomplished. The problem, so far, then, is simpler than that of effecting complete version, and may therefore logically precede the latter in the order of discussion. The simplicity is, indeed, more apparent than real, more theoretical than practical. The task of delivering a breech case such as I shall presently describe, vies in difficulty with that which has to be encountered in the most severe forms of shoulder-presentation.

In a considerable proportion of breech cases the labour is premature. In these generally there is no difficulty. Indeed, I have commonly observed in these premature breech-labours a remarkably active, even stormy character in the uterine contractions, driving the child through with unexpected rapidity. But when the child is mature and well developed, a breech-labour is by no means easy.

There are two principal conditions of breech-presentation under which labour may become arrested or difficult. Whether the position of the fœtus be dorso-anterior or abdomino-anterior, the legs may be disposed in one of two ways. First—and it is the most common case—the legs may be placed upon the thighs so that the heels are near the nates, and (what is very important to recollect) therefore not far from the os uteri.

Fig. 51.

Secondly, the legs may be extended so that the toes are pointed close to the face.

Several causes concur in obstructing delivery. The breech is not nearly so well adapted as the head to traverse the pelvis. Instead of taking a movement analogous to the extension of the head forwards under the pubic arch, the breech tends to bend backwards in the hollow of the sacrum. The spine, tending to curve in a sigmoid form, is not so well fitted to transmit the expulsive force applied to the head by the fundus uteri. Then there is the wedge formed by the legs doubled up on the abdomen, which does not easily allow of more than the apex—represented by the breech—descending into, or traversing, the pelvis.

Now the apex of this wedge, represented by the breech and the thighs bent on the abdomen, can enter the pelvis very well. But then comes the widest part or base of the wedge, formed by the chest, shoulders, arms, head, and legs. This often exceeds the capacity of the brim in mere bulk. But in addition there is an impediment to rotation of the child on its long axis, which rotation is necessary to easy descent.

There is yet another obstacle. It arises out of the condition of the uterus. The cervix opens just in proportion to the dimensions of the body which traverses it. The breech, being of less bulk than the head and other parts constituting the base of the wedge, does not open the cervix widely enough to allow this base to descend. The uterus is apt to contract firmly upon the parts still retained in its cavity; and, the cervix encircling the wedge about its middle, a state of spastic rigidity ensues, which tends to lock up the head and chest and to impede descent and rotation. In Fig. 52 I have endeavoured to depict some of the conditions described.

Fig. 52.

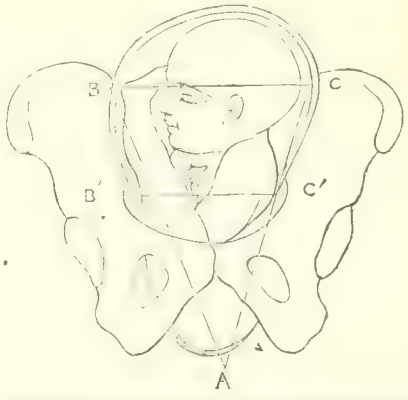


Fig. 52.—The position of the fœtus with the legs extended as seen from a front view. The breech has descended into the pelvis. The fœtus forms a wedge, of which the apex A is turning forwards under the pubic arch. The base B C formed by the head and legs is wider than B′ C′, the transverse diameter of the pelvis.

Sometimes the cause of arrest is simple inertia: a little *vis à fronte* to compensate for defective *vis à tergo* may be all that is necessary. It is in the hope of extricating the child by this means that traction in various forms is resorted to. If this is unsuccessful, the case is rather worse than it would have been if left alone. The apex is dragged down a little more, the mother's pelvis is more tightly filled, and the uterus has become more irritable. I have on this account arrived at the conclusion that it is better not to resort to direct traction upon the breech in any case where there is arrest. The proper course is, I believe, to bring down a foot in the first instance. Then traction, if still indicated, can be exerted by aid of the leg with safety and with increased power, and under the most favourable conditions for the descent and rotation of the child.

I have seen fruitless and injurious attempts made to extract by fingers, hooks, and forceps. I believe that all the best authors—that is, of those who have encountered and have had to overcome this difficulty, for it is little considered in our text-books—condemn the use of hooks and forceps. Chiari, Braun, and Spaeth,(a) Ramsbotham, H. F. Naegele, are decided in their reprobation. Hohl says(b) the forceps is neither necessary nor effectual. The breech is already in the pelvis. To apply the blades safely, the hand must be passed into the vagina, and, having done this, it may as well do the right thing at once—that is, bring down a foot. Special forceps made to seize the breech are also superfluous.

I have always succeeded in delivering these cases by the simple use of the unarmed hand, and since the cases in which

(a) *Klinik der Geburtshülfe.* 1855.
(b) *Lehrbuch der Geburtshülfe.* 1862.

I did so succeed were the most difficult that can be encountered, it follows that the unarmed hand is sufficient to overcome the cases of minor difficulty of the same kind. To determine us to reject hooks and forceps, it should be enough to remember that the child is probably alive, and that, under proper skill, it may be born alive. Now hooks and forceps will, in all likelihood, either destroy the child or involve its death through the delay arising out of their inefficiency, or they may seriously injure the child. The blunt hook may fracture the femur, contuse the femoral vessels, or at least inflict severe bruises on the soft parts. The forceps may injuriously press upon the abdominal viscera.

The difficulty is seldom manifest until the breech has entered the pelvis, and this is the great cause of the obstacles opposing operative measures. To traverse the pelvis, the child's body must take a sinuous course, represented in Fig. 53.

Fig. 53.

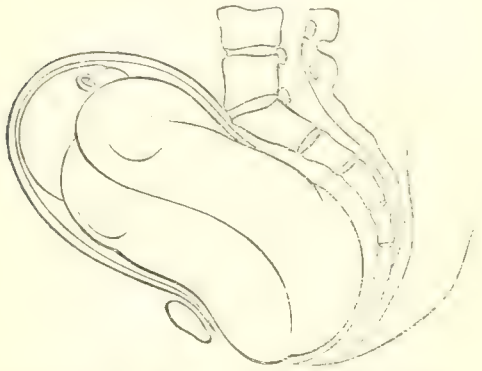


Fig 53 represents a side view of a breech presentation, in which the breech has entered the pelvis It shows the sigmoid form imparted to the trunk in its effort to traverse the sacrum

The clear indication is to break up or decompose the obstructing wedge. This is done by bringing down one foot and leg. For this purpose, pass your hand through the os uteri in front of the breech where the feet lie; seize one by the ankle with two fingers; draw it down, and generally the breech will soon descend. It is better to leave the other leg on the abdomen as long as possible, as it preserves greater rotundity of the breech, and helps to protect the cord from pressure. It will escape readily enough when the breech comes through the outlet.

The first thing to do is to determine the position of the breech in its relation to the pelvis, in order that you may know where to direct your hand to the feet. The breech simulates the face more than any other part, and so it is from the face that the breech has chiefly to be distinguished. There are four principal diagnostic points in the breech: the sacrum and anus behind, the genitals in front, an ischiatic protuberance on either side. The sacrum is distinguished by its uneven spinous processes from anything felt in a face presentation; and this is the most trustworthy characteristic, for the malar bones may pass for the ischia, and the mouth for the anus. In all cases of doubtful diagnosis it is well to pass the fingers, or hand if necessary, well into the pelvis, so as to reach the higher presenting parts. In a breech case you will thus reach the trochanters, and above them the groins, where a finger will pass between the child's body and the thigh flexed upon it. Then in front will be the fissure between the thighs themselves; and here, if the legs are flexed upon the thighs, will be the feet to remove all doubt. These are what you are in search of. But you only want one. It is much more easy to bring down one foot than both; and it is, moreover, more scientific. The question now comes, Which foot to bring down? I believe the one nearest to the pubic arch is the proper one to take. To seize it, pass the index finger over the instep; then grasp the ankle with the thumb, and draw down backwards to clear the symphysis pubis. When the leg is extended outside the vulva, it will be found that traction upon it will cause the half-breech to descend, and the child's sacrum to rotate forwards. The further progress of the case falls within the ordinary laws of breech-labour.

Fig. 54.

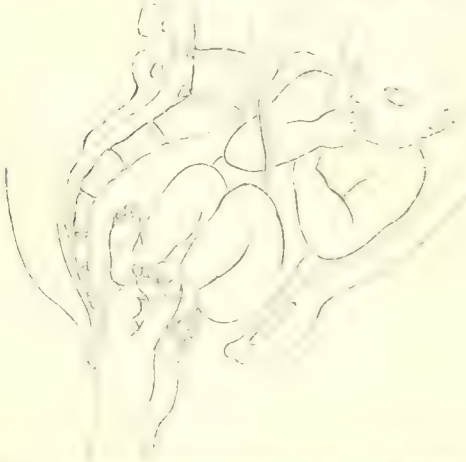


Fig. 54 represents a breech presentation with the legs flexed upon the thighs, and the method of seizing a foot.

The second case—that in which the feet lie at the fundus of the uterus close to the face—is far more difficult. The wedge formed by the extended legs and the upper part of the trunk must, in some instances at least, be decomposed before delivery can be effected. The cause of the difficulty will be understood on looking at the diagram, Fig. 52, and on reflecting that the breech or wedge may in great part be driven low down into the pelvis, leaving but little space for the operator's hand to pass; and further, that the hand must pass to the very fundus of the uterus to reach a foot. No ordinary case of turning involves passing the arm so far.

The mode of proceeding is as follows:—Give chloroform to the surgical degree; support the fundus of the uterus with your right hand on the abdomen; pass your left hand into the uterus, insinuating it gently past the breech at the brim, the palm being directed towards the child's abdomen, until you reach a foot—the anterior foot is still the best to take—a finger is then hooked over the instep, and drawn down so as to flex the leg upon the thigh. Maintaining your hold upon the foot, you then draw it down out of the uterus, and thus break up the wedge. The main obstacle is thus removed, and you have the leg to exert traction upon if more assistance is necessary. One caution is necessary in performing this operation. It is this: the finger must be applied to the instep. It is of no use to attempt to bend the leg by acting upon the thigh or knee. You must therefore carry your finger nearly to the fundus of the uterus. This, and the filling up of the brim—and even of a part of the pelvic cavity sometimes—by the breech, render the operation one of considerable difficulty, demanding great steadiness and gentleness. I have brought a live child into the world by this proceeding on several occasions, where forceps, hooks, and various other means had been tried in vain for many hours. The *reason* of the operation, you will see, is analogous to that which indicates turning in arm-presentation. The further management of podalic or feet-first labours will be described under "Turning."

Fig. 55.

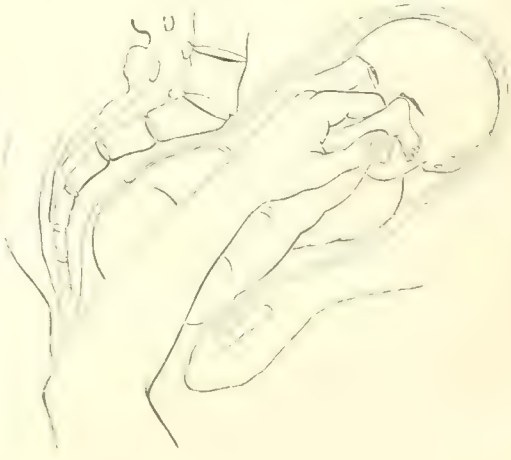


Fig. 56.

It is quite excusable, before proceeding to so difficult an encounter, to try some other method. The child may be small and the pelvis large, and so a moderate degree of tractile force may be enough to bring the wedge through without decomposing it. Various manœuvres have been adopted. You may hook one finger in a groin and draw down; or, what I have found better, you may with the forefinger *hook down each groin alternately*. (See Fig. 51.) In this way the breech will sometimes move. Or you may pass a piece of tape or other soft cord over the groins, as Giffard did in a case quoted by Perfect. The left buttock presented. Giffard, not being able with the forefinger of each hand, placed on each side of the thigh near the groin, to draw out the feet, succeeded by putting a soft string over the end of his finger; and getting that up on one side over the thigh and a finger on the other side, he drew the string out, and fixing it close up to the hips, he took hold of the ends that hung out, and thus extracted, being aided by the pains. An apparatus, having a curved flexible spring, might be used to carry the string over the hips,

Fig. 57.

or the object might be accomplished by a catheter first carried across, and then, having tied the string to the end, it could be drawn through—the proceeding resembling that adopted to plug the posterior nares for epistaxis.

Dr. Ramsbotham recommends the slipping a silk handkerchief over the groins. But it is possible that these and like measures may fail, and that you have nothing left but to break up the wedge by separating its component parts, and this, I repeat, is the proper thing to do in the first instance.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF EPILEPSY BY STRYCHNINE.

By WALTER TYRRELL, M.R.C.S.

Irregularity in the performance of the uterine functions is one of the most frequent exciting causes of epilepsy. I now propose to bring forward a group of cases in which strychnine has proved effective. In some of these, in which the uterine derangement was slight, strychnine alone has been used; in others it has been combined with aloetics, etc. I may remark that in all these cases emmenagogues had been previously given without relieving the epileptic attacks—a fact which tends to prove an opinion expressed by me in my first paper—viz., that it is necessary to attack both the predisposing and exciting causes simultaneously.

The first case is that of Miss S. C., aged 18. Was seized with her first epileptic attack nine years ago upon going to bed; it came on without warning of any kind, and was of a violently convulsive character. She had suffered from scarlet fever twelve months previously. In the course of the next four years, or until she was 13 years of age, she had in all seven attacks; but at this date there was a cessation of the fits for three years. At the age of 16 the catamenia appeared, and continued with regularity for some months; they suddenly, however, ceased, and the epileptic attacks at once recommenced, the first occurring during a class at school; this was on February 8, 1865. In that month she had four fits, and sixty-one in the course of that year, the catamenia being suppressed for the greater part of that time, although various means were taken to re-establish them. During the next year, owing to the improvement in the regularity of the uterine functions, the attacks lessened in number, but during the first six months of 1867 again increased to a formidable extent. Their type also became more severe, and they were preceded by the peculiar shrill epileptic cry; biting of the tongue also commenced. After the convulsions had subsided she was often very wild and incoherent in her manner. The case first came under my care in September of last year, and I placed her at once under strychnine in doses of one-tenth of a grain twice daily; this I afterwards carried up to one-eighth of a grain. I also gave at first the pil. assafœtidæ comp. in five-grain doses, but afterwards substituted the pil. aloes c. myrrhâ in the same proportion. With this treatment I coupled the use of cold affusion to the nape, early rising, and plenty of open-air exercise. During the first two months the progress made was small, as the attacks, although diminished both in number and severity, still continued. The general health, however, was decidedly better, the menstrual periods became more regular, and for the past four months she has not only been entirely free from fits, but her general health, appearance, and manner have improved to a remarkable extent. Part of the favourable result may here, perhaps, be attributed to the emmenagogues; but as they had been extensively used in the three previous years without producing the desired effect, a large portion of the credit may, I think, be fairly given to the strychnine. This will also be borne out by the two following cases, in which epilepsy arising from irregular menstruation was successfully treated by strychnine alone.

A. C., aged 18, a girl of dull complexion and low nervous temperament, has suffered from epileptic attacks from 8 years of age, but much more severely since the appearance of the catamenia, which have been irregular. During the past two years the attacks have recurred every four or five days, and oftener at the menstrual period. They are violently convulsive, but are not preceded by any aura or other warning. Her memory is much impaired, and she suffers from almost continual headache. I here commenced with $\frac{1}{12}$th of a grain of strychnine, and it was

only necessary to increase it to $\frac{1}{10}$th, as the good effects were at once perceptible in an improved state of health, regularity of the uterine functions, and an entire cessation of the fits; in fact, only two, and those at intervals of fourteen days, have occurred since she first commenced the medicine, and she has now been perfectly free for five months. In this case also, cold bathing, walking exercise, and early rising were made adjuncts to the treatment. Both in this and the following case the reason of the rapid success of a comparatively small dose is that the predisposing cause of the attacks was but slight, and that consequently an increase of nervous power being supplied to the medulla oblongata enabled it not only to restrain the irregular discharge of nervous power, but also to restore the healthy functions of the uterus.

A. B., aged 23, a dull phlegmatic-looking girl, with low retreating forehead, has been the subject of epileptic attacks for eight years, but latterly they have become much more severe in all their characteristics. The catamenia have never been regular. In this case I commenced with $\frac{1}{10}$th of a grain of strychnine, which dose she continued to take for nearly two months, when it was increased to $\frac{1}{8}$th. Under this (in combination with cold affusion and outdoor exercise) her health rapidly improved, and the attacks to which she was subject, about every ten days, decreased both in number and severity. She has now been entirely free from attack for more than four months, and has discontinued the medicine for nearly half of that time.

I have now been watching the effects of strychnine upon various forms of epilepsy since 1861, and I have no hesitation in affirming that in a large majority of cases its effect is most beneficial; at the same time, I would not be at all understood to vaunt it as specific, *per se*, in all cases. I think that its value lies in the effect it has in deadening that condition of "exalted sensibility" and activity of the medulla oblongata which Van der Kolk (and, I imagine, most recent authors) considers to be the predisposing cause of the disease. That this is the effect of strychnine is, I think, proved by cases narrated in my former papers,(a) but especially by the case which I mentioned in my last paper, a few points of which I will recapitulate, as it affords a capital illustration of my meaning:—A gentleman, aged 40, had suffered for sixteen years from violently convulsive epilepsy. The attacks varied from fifty to sixty in the month, and occurred chiefly at night. His mental faculties were little if at all impaired, and his general health perfectly good. No exciting cause could be discovered, and he had used every variety of means without benefit. The only fact which had any bearing on the case was that previous to the commencement of the attacks he had been subject to frequent and severe epistaxis, on the stoppage of which the attacks apparently came on. Now, here was a case which would undoubtedly belong to that group which Dr. Reynolds, in his valuable work on epilepsy, has classed as most intractable and least amenable to treatment. Yet from the first day of this patient's commencing strychnine the attacks diminished, both in number and severity, in the most remarkable manner, so that in the first month of treatment the attacks were only eleven in number against fifty-one in the previous month, and this without any increase of severity. Nor has this result been merely a temporary one, but the patient, who is still under treatment, has gone on progressing, and I heard from him only a few days since to say that he had had an interval of eleven days without any attack. I single out this case, as it was one of unusual severity, was due to no special exciting cause, and belonged to a class of cases which are generally admitted to be very intractable, yet it yielded at once to the plan of treatment I mention. This might be called a case of pure epilepsy, for the disease was due to no exciting cause, and this would probably account for the strychnine alone being sufficient to produce such favourable results. In most cases, where various exciting causes are at work keeping up the sensibility of the medulla oblongata, it is necessary to remove them at the same time that we are restoring the healthy condition of the nervous centre by strychnine. The stomach, uterus, pharynx, kidney—in fact, almost any organ—may be the seat of these exciting causes, and I think that in the treatment of epilepsy the grouping of the cases according to the nature and locality of their exciting causes offers the best prospect of success. Thus, I would in all cases give strychnine to remedy the predisposing cause, and at the same time endeavour to discover and treat the exciting cause or causes. In a large class of cases the exciting causes of irritation will be found to lie in the gastric branches of the pneumogastric nerve, and it is in these cases that nitrate of silver, sulphate of zinc and copper are so useful, and they act, I believe, by deadening the sensibility of the nerves of that part. In irritation proceeding from the uterus and sexual organs the bromide of potassium is very useful, coupled often with aloes and other emmenagogues. In many cases where I have found the disease coupled with irregular pulse and signs of cardiac derangement, I have found digitalis act well. With regard to diet, I find that almost all cases of epilepsy bear a liberal diet, with a fair amount of stimulant, and I have often seen marked improvement follow a change from a spare to a full diet; of course attention must always be paid to the prevention of anything like a heavy meal, more especially in those cases in which gastric irritation would appear to be the exciting cause. I have, since writing my last paper, seen several cases of *petit mal* in children, and in all of which I have found strychnine successful; and I may here mention that I think some distinction may be drawn between these attacks when they occur prior to puberty, and when they are present in adults. I think that in childhood they are less destructive in their effects upon the mind, and they certainly yield much more readily to treatment.

J. K., 11, a not unhealthy-looking boy, has been subject for five years to attacks of *petit mal*, with occasional severe fits of convulsive epilepsy, the latter having usually come on after an excess in eating, though twice they have occurred at night. He had convulsions in infancy. In the slighter attacks he would lose himself for a few moments, would stop talking, or would talk incoherently in the middle of some sentence, would occasionally turn his head over the right shoulder, and in some cases his countenance would become livid. His memory was not affected, and he was very fond of poetry and of books generally. I commenced to treat him in July last, enjoining great care in diet, that it should be liberal, plain, but never in great quantity at once. I gave him $\frac{1}{16}$th of a grain of strychnine in solution twice daily; the attacks yielded almost at once, and he has now been perfectly well for nearly six months. The attacks of *petit mal* were here very frequent; sometimes as many as three and four would occur in one day.

The above cases are merely selections from a number, and are chosen as presenting features very commonly met with—a plan which I consider more likely to be useful than the narration of cases which present symptoms but rarely met with. I may say that, in all the cases in which I have used strychnine, I can find but three cases in which it has not produced any favourable result; and, on the other hand, I have seen no case in which it has produced an unfavourable effect. With regard to the doses, in severe cases I am in favour of giving a medium quantity for a lengthened period, rather than carrying the dose very high at first. In one case, narrated in a previous paper, the dose taken reached as high as $\frac{1}{8}$th of a grain twice daily, and this was continued for some three weeks without any bad effects being perceptible. But I find that quite as good results are obtained by a long continuance of a medium quantity, say from $\frac{1}{10}$th to $\frac{1}{8}$th of a grain, the system appearing to regain its nervous strength under the continued use of the medicine.

Great Malvern.

(a) Published in this journal May 18 and August 24, 1867.

ON A PLACENTA RETAINED 123 DAYS AFTER MISCARRIAGE IN A THREE MONTHS' PREGNANCY.

By F. W. P. JAGO, M.B. Lond.

Mrs. P., aged 40, living with her husband, miscarried on December 3, 1867, when a three months' fœtus was expelled. There was no flooding at the time, and in the evening of the same day she attended to her business. No Medical man was called.

From December 3, 1867, to April 3, 1868, a period of 123 days, she suffered from more or less bleeding, sometimes pale and thin, at other times very red, occasionally passing small dark clots. No afterbirth had passed, and she says that during the whole of the time the discharge was not very offensive. The loss was greatest at what were her usual menstrual periods, on the decline of which the smell became worse.

When sent for on April 1, I learnt from her the above

particulars, and found her, as may be expected, very anæmic indeed. She refused to be examined on my first visit, but consented to be in bed on my coming next day.

On April 2, 1868, I examined her and found a globular mass presenting at the os uteri, which was dilated to the size of a florin. There was a thin discharge with small coagula, but no fœtor. I could not grasp the substance presenting, but managed to rotate it in the uterus with my forefinger. Ordered powder of ergot in fifteen-grain doses every four hours. Called on the following day, and on examination found no advance of the retained mass. She then had pains and bearing down, but no discharge. Desired her to continue the ergot, and after taking it in the above doses for twenty-eight hours, she expelled a placenta of about 3 oz. in weight. The fœtal surface was folded on itself. The maternal surface was of a pale straw colour, two-thirds of it looking like a bit of fat; the remainder of the maternal surface was dark red, but there was no trace of anything to indicate organic adhesion. The fœtal surface was covered with the membranes, which ceased at its edge, and the insertion of the cord could be seen. Except that it was more dense in its structure when cut, the placenta seemed just the same as any other, and there were no signs whatever of putrefaction about it.

I beg to send you this simple record because of the bearing it has in a Medico-legal sense, and also because of the physiological reasoning which may be had on it.

3, St. Andrew's-terrace, Plymouth.

ON SYPHILISATION.

By Dr. ADAM ÖWRE, Christiania.

HAVING read in the *Medical Times and Gazette* the very interesting paper by Messrs. James R. Lane and Geo. G. Gascoyen on cases treated in the Lock Hospital by syphilisation (laid before the Royal Medical and Chirurgical Society), and the no less instructive discussion to which it gave rise on the interpretation of the facts observed, I should esteem it a favour if you would kindly find space in your columns for a few remarks bearing on that mode of treatment.

I fully concur with the authors of the report in the practical conclusion at which they have arrived—"Syphilisation is a treatment which should not be recommended for adoption"—and I have other reasons to urge in support of such decision than those adduced by the authors.

First, syphilisation, as a remedial agent, is utterly impracticable in any but large towns, where the frequent occurrence of the venereal disease furnishes ready access to inoculable matter. Again, syphilisation, as Mr. Gascoyen justly observes, exercises no influence whatever on the disease. We have the best proof of this in the numerous relapses attending syphilisation, and in the fact that the offspring of syphilised mothers, when born within a period of some years after the treatment was undergone, are invariably afflicted with hereditary syphilis, as is the case after every other mode of cure. I have seen a child suffering from hereditary syphilis whose mother had been syphilised twelve years previous to its birth. Thus syphilisation cannot possibly be specific; indeed, the various theories started from time to time on its mode of action, from Auzias de Turenne's to that of Professor Boeck, are untenable, barren theories, all of them. M. Auzias' assertion that the syphilitic virus could be induced by repeated inoculations to complete its course through the system in a shorter space of time has proved chimerical. Professor Boeck's doctrine of the analogy existing between syphilisation and vaccination, and his theory of absorption, are equally unstable. The principle of vaccination depends upon the introduction into the system of an infecting matter totally distinct from that sought to be eradicated—the virus of the small-pox—while the principle of syphilisation is homœopathic: syphilis cures syphilis. Vaccination is preventive in its agency, acting previous to infection; syphilisation should be a curative process, employed subsequent to infection. A single puncture suffices to complete vaccination; syphilisation requires hundreds, extending over a period of months. The only resulting analogy between the two methods would seem to be this:—In each the operation is performed with the point of the lancet, and both leave indelible traces behind them.

The theory of absorption, deriving its main support from the fact that enlargement of the glands has been observed, though but very seldom, in immediate proximity to the artificial sores, will be found on closer inspection to fare no better. How are we to believe that an organism manifesting the presence of constitutional disease by the outbreak of secondary symptoms is able to absorb still more—an almost unlimited quantity of the very virus by which that disease is engendered? Even were it possible for the system to absorb more of the infecting matter, this, in my opinion, could exercise no influence on the original infection—that infection being complete in itself. To attempt to "neutralise" or "saturate" a poison with itself is surely a process unheard of in science.

It is very strange that the advocates of syphilisation, while maintaining the existence of an absorptive action—which they do, even in the case of abortive inoculation—should yet make such a point of obtaining a positive result in the shape of pustules and ulcers. To give an instance of this:—On children afflicted with hereditary syphilis, and on adults suffering from the papulous, pustulous, or squamose forms of eruption, the inoculable matter either does not take at all, or only produces small and imperfectly developed pustules; but such a meagre and intangible result being far from satisfactory, the inoculations are repeated daily. Are we to presume that the process of absorption is accelerated by the artificial ulcers? or is it perhaps with the object of furnishing the syphiliser and his patient with tangible proof of the influence of the treatment, that these attempts to obtain a positive result are so strenuously prosecuted? Now, when we hear that there are cases, even in the maculous form of the disease, in which the inoculations prove abortive, but which, nevertheless, have been "cured by syphilisation," all traces of the disease having disappeared from the surface of the body, it strikes me that a ready and satisfactory explanation of the "cure" may be found in the healing influence of time, especially as the syphilitic exanthemata are found to disappear as readily and as surely in patients who have not been subjected to inoculation.

"The cure of syphilis" by syphilisation is, in fact, the work of time, in conjunction with detergent and caustic topical applications—invariably employed during this mode of treatment—and sometimes tonics.

Lastly, the only influence exerted by syphilisation consists, I firmly believe, in nothing but pain and discomfort to the patient during the whole, and especially at the commencement, of the alleged curative process, and indelible traces for the remainder of his life. The authors' statement, that "no prejudicial effect was produced upon the health of the patients by the inoculations," is certainly gratifying, so far as the patients themselves were concerned. I, however, have had occasion to observe, and that not long since, sores of an extremely painful and dangerous character resulting from inoculation, in spite of the "greatly improved" mode of operation now practised; but I am bound to add that such cases are exceptional. That "some gain flesh and strength during the treatment" may, I think, be readily accounted for, without giving unmerited credit to syphilisation. It is true that, as the treatment advances, patients, in the great majority of cases, speedily regain flesh and muscular force. But this must not be attributed to syphilisation; on the contrary, it arises partly from the pain and suppuration occasioned by the numerous, and not unfrequently deep, artificial ulcers having begun to diminish, and partly from the progress of the disease, its debilitating influence invariably declining in proportion to the time which has elapsed since the introduction of the poison into the system.

Professor Boeck has found "the matter from an indurated chancre to be more efficacious and rapid in its action." If we investigate, at different periods, the average duration of the treatment by syphilisation, we shall find this is but a loose assertion. In 1854 the average time stated is 182 days; in 1856 the stay of most patients in Hospital exceeded four months; in 1857 the treatment lasted 140 days. During the period extending from July 1, 1856, to June 30, 1858, "about 148 days" was the average time. As a rule, matter from soft sores had hitherto been used. In 1862 the time stated is $139\frac{3}{6}$ days; in 1863, 134 days. During the period extending from October 1, 1863, to the expiration of the year 1864, I found the average time $153\frac{57}{59}$ days. The inoculations are said to have been made principally with hard chancre pus. The difference is thus trifling in the extreme, the average duration of the treatment with matter from soft chancres being 149 days, and with matter from indurated ones 142. Besides, no such care was shown in the selection of matter as, from the printed statements, would appear to have been taken, both kinds having really been used indiscriminately.

But that the indurated chancre, *plaques muqueuses*, and other secretory secondary affections are auto-inoculable, sometimes

without even being made to suppurate by irritating media, is an incontrovertible fact which no dualist will ever be able to subvert. I myself have repeatedly succeeded in producing a positive result with the secretion from hard sores, both when practising syphilisation from an honest conviction of its efficacy, and since I have renounced the system. The so-called *chancre mixte*, a product of the Lyons school, and eagerly welcomed by all dualists, is quite superfluous for the honest and persevering experimenter.

The vast importance attached to immunity, when thoroughly investigated, amounts to this—Though an interesting physiological phenomenon, it has nothing whatever to do with the disease; neither does it afford any proof of cure. Professor Boeck himself admits that "immunity may be obtained before the cure has been effected, in the case of too rapid inoculation. That a condition of approximate immunity in the cases treated by syphilisation in the Lock Hospital was established some considerable time before the phenomena of the disease had disappeared may be gathered from the language of the report. "The average time in which this [immunity] was accomplished was four months," while "the average stay of each patient in Hospital after the inoculations were commenced was five months and eighteen days." The remaining period of one month eighteen days was, I presume, exclusively devoted to the application of local remedies.

It is customary here in Christiania also to prolong the stay of patients in Hospital some time beyond the completion of the inoculations, outward signs of the disease still existing. Of ninety-seven patients treated by syphilisation, I found that fifty-eight had remained in Hospital on an average $18\frac{8}{29}$ days for after-treatment, this after-treatment consisting in the application of caustics and astringent remedies, and in the use of the bath. The immunity resulting from syphilisation furnishes, however, a striking indication of the existence of a kind of autonomy in the skin; but this immunity is not absolute, nor is its duration continual, as often proved by renewed syphilisation in the treatment of relapses.

Now, when we consider that there exists no specific remedy for constitutional syphilis—which, to speak candidly, there really and truly does not—and when we are content to have patients under treatment during a few months only for so intricate and protracted a malady, relapses will invariably be the rule, whatever treatment may have been employed. If patients were examined occasionally during the space of one or two years subsequent to their cure, I feel convinced the truth of this assertion would be manifested. Such examinations, however, for various reasons, are extremely difficult to put in practice, especially in large towns, so that Medical men are often left in ignorance of the true results of their treatment. Sometimes, too, the strong instinct of paternity may tempt the inventor of a method to conceal the number of relapses in his private practice, or, in the case of Hospital patients, to put a wrong construction on facts.

With regard to the number of relapses attending syphilisation, this is a point which has never yet been cleared up, and it is extremely doubtful whether it ever will be satisfactorily. In 1856, it seems, Professor Boeck had "not met with a single case of relapse," after having practised this mode of cure for upwards of three years. In 1862 he gives the proportion as $9\frac{8}{33}$ per cent.; Dr. Bidenkap, in 1863, as 10 per cent.; and Boeck, in 1865, as 12 to 13 per cent. Having myself carefully examined the minute books of the University Hospital, containing 500 cases of patients treated by syphilisation for recent constitutional syphilis, I found the proportion of relapses to be 15 per cent.; in the Christiania Infirmary, where this mode of treatment is followed, it was $15\frac{8}{33}$ per cent. Professor Boeck stated, in the lecture he delivered at Dublin in 1865 on the treatment of syphilis by syphilisation, that but three cases of tertiary relapse had come under his notice. Among the above-mentioned 500 patients received into the University Hospital, there were ten cases of tertiary relapse, or 2 per cent. My examination of the minute books took place at the commencement of 1866.

Such cases of relapse are of course, for statistical purposes, only applicable to patients who are readmitted into the Hospitals where they were originally treated. Of cases in private practice or in other Hospitals, and of such as, though suffering from relapse, are not subjected to treatment a second time, we know nothing; but their number is surely far from small.

With regard to one of the reasons given in Messrs. Lane and Gascoyen's report for not recommending syphilisation—viz., the loss of time which it entails—I would call to mind that Ricord, for a mercurial treatment of constitutional syphilis, requires a period of six months, followed, on an average, by a three months' treatment with iodide of potassium; Zeissl, of Vienna, about four months with mercury. Diday states that he has found the duration of the treatment for secondary syphilis with relapses to be twenty-two months. Professor Boeck has accurately calculated the average time for several thousand cases treated in the Christiania Hospitals with mercury, and has found it to be $123\frac{3}{367}$ days.

To attempt to refute the numerous contradictory statements and unfounded assertions advanced from time to time by the advocates of syphilisation would extend my communication far beyond the space I can hope to have placed at my disposal in your journal. Besides, the days of syphilisation are apparently numbered. Of the adherents this method once counted in Christiania, two alone, exclusive of Professor Boeck, are now left.

But if it be unjustifiable—as I certainly think it is—to pursue this course of treatment, now that the right conclusions respecting its influence have been established, an equal degree of culpability must, in my opinion, attach to the Faculty if, with rigid conservatism, it persist in the use of mercury, so dangerous and uncertain in its action. This "pernicious" drug is quite unnecessary in the primary and secondary stages of the disease—a fact well proved by the hundreds of patients who have been restored to health in Christiania *post*, if not *propter*, syphilisation, and the so-called "derivation" with epispastics, as likewise by the *circa* seventy cases of constitutional disease in which I have employed only local applications, with cleanliness, nourishing diet, and fresh air. Mercury is never given in either of these three modes of treatment, and it is to this circumstance that we are inclined to ascribe the fact of so few and but slight forms of tertiary disease having appeared.

Whatever may be said of syphilisation as a curative process, the world will ever stand indebted to "the greatest of living writers on syphilis," Professor Boeck, for his energetic and unwearied endeavours to abolish the use of mercury in the treatment of venereal disease, and for his having been indirectly instrumental in establishing a treatment for new constitutional syphilis similar to that adopted for acute exanthemata—the expectant, or rather symptomatic method.

SIMPLE SYNTHESIS OF UREA.

Professor Kolbe, of Leipzig, who is at present in London, described at the last meeting of the Chemical Society an interesting and wonderfully simple process for the synthesis of urea. All chemists know that each molecule of carbonate of ammonia contains the elements of a molecule of urea *plus* two molecules of water. During the incipient putrefaction of urine, urea actually takes up two molecules of water, according to the well-known formula

$$CO_1H_4N_2 + 2H_2O = (NH_4)_2CO_3,$$

and is thus converted into carbonate of ammonia. The same change can be effected by heating an aqueous solution of urea to a temperature of 284° Fahr. in a hermetically sealed tube.

Urea, in fact, bears to carbonate of ammonia the same relation that oxamide does to oxalate of ammonia. Now, when oxalate of ammonia is heated, it loses two molecules of water, and is converted into oxamide; but carbonate of ammonia, when exposed to similar treatment, is simply volatilised instead of being dehydrated. The parallel reaction has, however, at last been effected by Professor Kolbe, and thus this important gap in the history of urea is filled up. The process is very simple. Dry carbonate of ammonia is enclosed in a hermetically sealed glass tube, and heated for some time to a temperature short of that at which urea decomposes. Under these circumstances, the salt behaves like oxalate of ammonia—that is to say, it loses water and becomes converted into the corresponding amide—in other words, into urea. The formula is, of course, precisely the reverse of that given above, but we will vary its form by presenting it in the old notation, which is, even now, more familiar to many of our readers—

$$2NH_4O,CO_2 = C_2O_2H_4N_2 + 2H_2O_2.$$

As usual, the thing being done, one is tempted to wonder why so very simple an experiment was never tried before.

Merchant Seamen's Hospital.—The late Arthur Anderson, Esq., M.P., of Norwood, has bequeathed £1000 to the above institution, in addition to large legacies to other charities not Medical.

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SATURDAY, APRIL 18, 1868.

THE PRINCIPALSHIP OF THE UNIVERSITY OF EDINBURGH.

It is currently reported that the Patrons of the University of Edinburgh are in doubt whether they shall elect to the vacant dignity of Principal a future Professor of Moral Philosophy, or a Professor in the Medical Faculty. For the vacant chair of Moral Philosophy there are, as might be expected, many candidates, amongst whom we may mention Dr. Stirling, a member of the Medical Profession, a most profound and original thinker, and the author of several metaphysical works, as the "Secret of Hegel." Another is Professor Flint, who has for several years taught Moral Philosophy with great influence and success at the University of St. Andrews. A third candidate, and one whose friends are making immense efforts, is Sir Alexander Grant, Bart., the present Vice-Chancellor of the University of Bombay. Sir Alexander's claims for support seem to be—first, the credit he has gained for his promotion of the higher education in India; secondly, the fact that he edited, in 1857, the Nicomachean Ethics of Aristotle, with comments—a literary feat performed with at least some aid from German metaphysical sources; and last, not least, that he had the good fortune to marry a granddaughter of the late Professor Wilson (or, as he is better known, "Christopher North"). It is generally believed that Sir Alexander will not accept the Principalship, which is an office of honour and emolument, but of no great work, unless he obtain the chair of Moral Philosophy as well. Now, whether Edinburgh really needs an infusion of fresh metaphysical blood from Oxford is a question we cannot solve; we can only believe that the Patrons will choose as their new Professor the best man they can get, without regarding school or nationality. But then the question comes: Supposing they elect Sir Alexander Grant as the new Professor of Moral Philosophy, will it be just and expedient to make him also the new Principal? We think not. Surely some existing Professor is worthy of the honour, and of all the faculties that of Medicine has the strongest claim. The world at large knows the University of Edinburgh chiefly by its Medical Faculty. Edinburgh Doctors of Medicine are to be found all over the civilised world; to be an Edinburgh M.D. is a certain distinction; but the world knows far less of Edinburgh Doctors of Laws or Theology. The largest Faculty is Medical, and has the most numerous classes; it is but equitable, therefore, that the presiding officer should—at least in turn—be Medical too. Such a choice would be in accordance with the spirit of recent legislation, which has freed all the Scottish Universities from the necessity of electing a clergyman as principal. (Sir D. Brewster, by the bye, was a clergyman, though nominally only, and only preached once.) And without in the least ignoring the lustre of Professor Christison's reputation, may we not say that at the present day Professor Simpson stands forth as the man on whose shoulders the mantle should fall? If we think of Medicine, the impulse which he has given to experimental therapeutics, the number of new remedies tested under his auspices and accepted by the Profession, immediately spring to our thoughts; in Surgery the first lesson the pupil learns will be that on the causes and prevention of Surgical fever, which we owe to him; in the operating theatre his needles are seen instead of the tedious old ligature; in gynæcology and obstetrics his numberless researches and therapeutic discoveries meet the Practitioner at every turn. As to sanitary Medicine, we may instance small-pox and puerperal fever as maladies in which he has shown the way from scientific doctrine to practical use; and as to chloroform, whether it be destined to be supplanted or no, the millions of sick and wounded whose anguish it has assuaged ought to count as so many votes in his favour. Nor is it only in Professional lore; in archæology and philology, especially as bearing on the early history of man, Sir James Simpson has been so prolific in publication that he would have been remarkable for his industry even if he had never written a line on Medicine. His election to the Principalship of his own University would be an act just in itself and agreeable to the whole Medical Profession.

MR. ORTON ON THE WATER THEORY OF THE CHOLERA OF 1866.

Mr. Orton is one of the clearest and most picturesque of writers, an acute observer and reasoner, and quite chivalrous in his onslaught on what he believes to be error, especially if it be entrenched behind official influence and dignity. In his lately published "Supplementary and Conclusive" Report on the Cholera of 1866, he gives a picture of the Limehouse district such as local knowledge only could have enabled a man to draw, and such as ought to be fully taken into account in dealing with the causes of that exceptional virulence with which the cholera treated Limehouse and the adjoining districts of East London. For if it be true, as he almost passionately argues, that the "foul-water theory" does not account for the outbreak of cholera, but that other causes do which are still in existence, then, in the event of another epidemic, that district will be as liable as it was in 1866, and there will be a repetition of the former slaughter.

Mr. Orton's general views on the causation of the epidemic are, that intemperance in drink was one of the foremost predisposing causes, and infinitely more fatal than the drinking of any water; that telluric exhalations played an important part; that many public and private dwellings, situated at very low levels, owed their exemption to an excellent construction which shut out these exhalations (a useful hint this, and applicable to more diseases than cholera); that the primary cause of the cholera was atmospheric, and that its terrible fatality in East London was due to the filth there present, "*not to be equalled in other parts of the metropolis.*" After this introduction, he acutely tests various hypotheses which have been brought forward to account for the *explosion* in East London. What was it which East London had, and which the rest of London had not, to account for the great difference in mortality? "Foul water," say one party, headed by the Registrar-General, Farr, Radcliffe, Simon, and the disciples of Dr. Snow. "General foulness of earth and air," say Mr. Orton, Dr. Letheby, and their supporters. "But," says the Registrar-General, "other parts of London were as foul as yours, yet had not cholera like you—not only not so *much*, but not such a sudden and wide outburst—because they had not your foul water." "On the contrary," says Mr. Orton, "I'll prove, first that our water had nothing to do with it, and secondly that we had a peculiar and exceptional foulness of earth and air."

The first part of his argument—viz., that against the water theory—is acutely worked out. He seems to admit to the full (see p. 46) the allegations both that the East London Water Company did distribute unfiltered water from uncovered reservoirs on two occasions "towards the end of June and beginning of July," and likewise that their covered reservoirs admitted of soakage from the River Lea, which had been going on no one knows how long. Yet, spite of the pollution, the water, he thinks, had no share in the cholera explosion. Very many cases are given of institutions in which the accused water is said to have been drunk largely, and yet cholera was absent. One good hit is made with respect to 130 babies who died of cholera, while of their 130 mothers only three died. It is asked—Did these 130 babies drink water, and did not their mothers? In fact, this line of argument is as well put as it can be; and yet we may say that it is one which the facts of every-day life do not allow to be worth much. If Mr. Orton were to apply his water-doctrine to the east wind, he would soon be able to show that it cannot be the cause of rheumatism, neuralgia, and catarrh. For do we not all breathe the east wind, and yet do all get neuralgia? Are there not numberless instances in which, out of a dozen people in one house, all breathing the same wind, two or more only shall suffer?

Leaving the water, we must say that Mr. Orton's exposition of the peculiar filthy influences affecting the East is most triumphant. He does show that causes of disease are there rife to a degree unknown to the rest of London. The East London cholera field had no new drainage; on the contrary, "the most fatal district (Limehouse) served as a poison channel for conveying away the filth of other parishes." There are the St. Katherine's, London, and East and West India Docks, with their immense acreage of stagnant, always offensive water; the Regent's Canal, a common nuisance at all times, into which, to save the water, the company pump back thousands of gallons of filthy liquid from the docks every hour. The Lea Cut is another abomination. The high and middle level sewers of the new drainage system pass through the East, yielding thousands of cubic feet of fœtid gas hourly. The unfinished low-level sewers were at the time filled with stagnant stinking sewage, and passed right through Limehouse. The sewage from the West Ham pumping station, the sewage from Canning-town, Victoria Docks, West Ham, Stratford, etc.—the Limekiln-dock sewer, the Ratcliffe-highway sewer, the Wapping and Shadwell sewers, all seem to converge to this unfortunate district. These great sewers, too, are all *tide-locked*; they poison earth and air in this low-lying district; and verily, as we hold our noses mentally, we quite admit, with Mr. Orton, that the East of London is subject to exceptional influences, quite enough to account for the severity of any pestilence.

But we will put it to Mr. Orton—such being the state of earth, and air, and rivers—was anything better calculated to secure an *explosion* than the distribution for drinking of water which soaked from such streams through such soil?

PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC

Much interest has recently been excited in London by the introduction of protoxide of nitrogen as an anæsthetic agent, which has for the most part been due to the efforts of Dr. Thomas Evans, of Paris, who has recently made a visit to the metropolis for the express purpose of enlisting popular opinion on its behalf. We have hitherto abstained from saying anything on the subject, as the minds of the Medical public might not be prepared to receive a perfectly unbiassed but somewhat adverse estimate of the value of the gas as an anæsthetic, but we now consider it our duty to lay certain facts before them which will tend to put matters in a true light. In the first place, then, the use of nitrous oxide as an anæsthetic is not a new discovery. When, owing to the brilliant series of discoveries made by Davy and others, pneumatic chemistry was in its greatest glory, the treatment of disease by the inhalation of different gases was a favourite scheme. Davy discovered the peculiar exhilarating effects of nitrous oxide, and the notion of using it as an anæsthetic was straightway formed. Again and again it was tried in this way at home and abroad, but repeated trials only seemed to render its inapplicability more decided, and we have heard little of it until news of its resuscitation, chiefly in dental practice, reached us from America. The success of the new attempt seemed to depend on the fact that no air was inhaled along with the gas, and that thus its peculiar stimulating effects were in great measure prevented. Preparatory, however, to entering on a discussion as to the special merits and demerits of protoxide of nitrogen as an anæsthetic, a few words on its chemical history may not be out of place.

Nitrous oxide, then, or protoxide of nitrogen (N_2O), is a gas having exactly the same specific gravity as carbonic anhydride (carbonic acid CO_2)—1·52—and of course the same relative weight. It may be prepared in a variety of ways—cheaply by the action of zinc on nitric acid, strengthened by sulphuric acid; more expensively, but in a purer form, by heating the nitrate of ammonia, although even in this way the gas may be contaminated by the presence of other oxygen compounds of nitrogen, or by chlorine compounds resulting from inequalities of temperature during the process of preparation or impurities in the salt. Its taste is pleasantly sweetish, and its chemical properties are almost identical, although somewhat lower in degree, with those of oxygen. One notable exception is its solubility in cold water, which is much greater than that of oxygen, for hot water does not take up so much of the gas as that at a low temperature. These facts are necessary to a true understanding of its effects.

To prepare protoxide of nitrogen for inhalation, then, great care must be taken to preserve its purity; consequently it becomes important to maintain as nearly as possible an equal temperature during the process of its manufacture, and, should any nitric oxide be formed, to deoxidise or remove it, which is best done by a solution of ferrous sulphate (sulphate of the protoxide of iron), and washing in water. From what we have said, this washing in water, and keeping the gas for any length of time over water, must be attended with great loss, as much of the gas is thereby absorbed. This may be, to a great extent, avoided by employing water at an elevated temperature, or a strong solution of common salt for the same purpose. When about to be inhaled as an anæsthetic, great care must be taken that no oxygen or air become mixed with the protoxide; otherwise the peculiar effects described by Sir Humphry Davy are observed instead of anæsthesia.

Let us now consider how the gas produces anæsthesia. And here we must confess our indebtedness to some most admirable remarks made at the Medical Society of London on Monday night by Dr. Richardson. When protoxide of nitrogen is inhaled instead of air, there are no longer two gases of very different densities on either side of the pulmonary capillaries, the one in the air-cells of the lung, the other in the blood. Consequently, seeing that nitrous oxide and carbonic acid, having the same density and the same diffusibility, will not change places, carbonic acid will become accumulated in the system to an enormous extent. The small amount of protoxide of nitrogen absorbed having chemical properties almost identical with those of oxygen will, we may suppose—although on this point opinions are divided—hasten the production of carbonic acid, and, consequently, its accumulation. No wonder, then, that anæsthesia, or rather apnœa, rapidly follows. It cannot be too widely understood that protoxide of nitrogen is not *an anæsthetic* in the true sense of the word, but an *asphyxiating agent; that its effects are identical with those of poisoning by carbonic acid gas.* The physical properties of protoxide of nitrogen are those of carbonic acid;

its chemical, those of oxygen; and hence it is that it produces anæsthesia. Many men are apt to found their conceptions of poisoning by carbonic acid on the descriptions given of death caused by the fumes of burning charcoal. This is an error. The poisonous agent produced by burning charcoal is really carbonic oxide; the effects observed are characteristic of this gas, and differ essentially from those of carbonic acid. Death from carbonic acid may occur as from the choke damp of coal mines, or the after damp which follows an explosion of firedamp; or, as has sometimes happened, by men entering brewers' vats before they had been properly ventilated. Thus death may occur as speedily as it does when any small animal is made to inhale protoxide of nitrogen; for that death does so result has been unmistakably proved by Drs. Richardson and Ludimar Herman (see Reichert and Du Bois' *Archiv* for 1864, pp. 521 *et seq.*), the great workers on the subject. Were an animal made to inhale pure hydrogen or nitrogen gas, capable of no vitalising action on the blood, the same results would follow, but in a longer time; for the densities of the gases being smaller than that of carbonic acid, the latter would diffuse outwards, but no oxygen would pass inwards, and consequently the vital processes must ultimately be arrested.

These facts serve to explain the intense lividity of the face of a patient under the influence of nitrous oxide, the dark colour of the blood which flows from any wound made by the Surgeon, the slow pulsation and almost complete arrest of the heart's action, as well as the speedy recovery when the gas is no longer inhaled; for, owing to the great quantity of carbonic acid in the blood, it will tend to diffuse rapidly outwards. Hence, also, the great danger of giving protoxide of nitrogen to a patient who has diseased lungs, either the result of pulmonary or cardiac affection, as the intense congestion produced by the gas may give rise to severe subsequent hæmorrhage. It will also be seen that the gas cannot be administered to every individual to the production of anæsthesia without great risk of inducing fatal apnœa. This fact will ever be a great bar to its general employment. Nevertheless, Marion Sims speaks of operating on a patient under its influence, when the operation lasted twenty minutes. We can scarcely understand how this could have been, except the mouthpiece of the inhaler had been repeatedly withdrawn during that period. If nitrous oxide is to take its place as a regular anæsthetic, it must be, for the most part, in operations of short duration, as in dentistry and some branches of Ophthalmic Surgery. Some of our leading men in these departments already speak highly of it, especially as being followed by no evil subsequent effects, but our experience is hardly so extended as to lead us to accept it without hesitation. For certain Surgical operations where complete muscular relaxation is indispensable, nitrous oxide is valueless, and will never take the place of chloroform.

We have made these observations in a calm and temperate spirit. We are very far from being opposed to the introduction of anything likely to benefit our fellow-men, but we have considered it our duty to lay before them the true action of protoxide of nitrogen, that, should they be inclined to adopt it, they may not do so with ignorant rashness. It is an edged tool not to be wantonly tampered with.

THE WEEK.

TOPICS OF THE DAY.

The rejection of Mr. Paget's motion for the appointment of extra examiners in physiology and physiological anatomy by the Council of the Royal College of Surgeons is, we think, to be regretted. It is only by some such measure, or by the election of men fairly representing the recent advances in science on the present Court, that the reputation of the physiological examination can be raised. The mode of examination also requires revision. Separate papers of questions should be set in physiology and anatomy, and it should be imperative that a certain portion of each should be answered. Under the present method of examination, as Professor Beale has recently shown in this journal, a student may escape the physiological questions altogether. We know that the College has lately done much to raise the character of its examinations; but we think that the physiological examination is yet susceptible of improvement, and we especially urge this on the College, as we are informed that, very properly, a reciprocal action in examination is sought to be established between the Royal College of Surgeons and other examining bodies.

To be killed and resuscitated by the newspapers is becoming an ordinary event in the lives of public men. It is by no means necessary to go to the Lake of Nyassa for the purpose. Within the last few weeks we have had instances of a Prime Minister, a leading judge, and a Physician of mark, who have all been ruthlessly slain one morning and brought to life the next in a manner which, were it not for the overwhelming tragical element in the case, might suggest a new "Comedy of Errors." None who take an interest in the progress of Medicine as a science could have seen the death of Dr. Elliotson announced without a sincere regret that a name, which thirty years ago was one of the foremost in Europe, had now disappeared. The letter, therefore, published in the *Times* from Dr. Symes, announcing that Dr. Elliotson still lives, and is in his usual health, must have been received with a feeling of great relief by all who are familiar with his earlier works or remember him when he was in the zenith of his fame. But it may be fairly asked whether it be creditable to English journalism that the relatives and friends of distinguished men should be so coolly made to endure these alternations of joy and sorrow. If the custom is to become general, it will prove a check to ambition, for certainly a man is not always to be congratulated who has such an opportunity of knowing with certainty what the world will say of him when he is gone. There have been a few people who have chosen daily to contemplate their epitaphs, but, as far as we can recollect, they have always taken care to write them themselves.

The case of Dr. John Stirling, the late Surgeon of the Naval Hospital at the Cape of Good Hope, on which we commented last week, assumes a worse aspect in proportion as the facts are known. The conduct of Commodore Randolph appears to be hitherto unprecedented even in the annals of the Naval Medical Service. It must be understood that Dr. Stirling was an officer specially selected on account of his services and ability by the Admiralty for the superintendence of the Naval Hospital at the Cape. Dr. Stirling was called to attend an officer, who, we believe, was suffering from gout in Commodore Randolph's house. According to the regulations, we are informed that the patient should have been in the Hospital, and that to visit him elsewhere was a stretch of courtesy on Dr. Stirling's part. The altercation between the Commodore and Dr. Stirling arose because the latter was unable on one occasion to attend at the instant he was summoned to the patient. For this offence he was suspended from his office, and sent back to England. The case certainly demands the fullest investigation by the Board of Admiralty. If the Board hesitate to reinstate Dr. Stirling and to express a strong opinion on the conduct of the executive officer, we conceive that an injury will be done to the popularity of the Naval Medical Service, which will completely efface all the good effects of recent concessions. The Commodore could not have dealt thus summarily with a Medical officer of high standing had the latter held any position other than that of the semi-civilian one of superintendent of a Hospital on shore. Had Dr. Stirling been only an Assistant afloat, he could have demanded to have been tried by court-martial, where he would have had full opportunity for defending himself. It was because he occupied

a high Professional position, for which his services and acquirements had peculiarly fitted him, that it became possible for him to be thus summarily dealt with. In an able article on the case which appeared in the *Army and Navy Gazette* of April 11, the editor urges this point:—

"It is certain that if Dr. Stirling had been a junior Assistant-Surgeon of the *Seringapatam*, which bears Commodore Randolph's broad pennant, he could not have been treated in this manner by the greatest martinet in the service. A court-martial, at which he would have been defended before sentence, would have been his undoubted right. That being the case, we ask, in the name of common sense, if it be right, if it be legal, or if it be just to the service, that an officer, trusted by the Admiralty in a position of high responsibility, should have been thus subjected to the arbitrary caprice of his superior officer without the right of appeal, or, at least, of such an appeal as might insure speedy justice to him."

We trust that, should the Board of Admiralty fail to do justice in this matter, the whole case will be brought before the House of Commons. While it is unredressed, we do not think there will be many applicants for commissions in the Medical service of her Majesty's Navy.

Dr. Joseph Rogers, late of the Strand Union, who is seconded by the veteran Poor-law Medical reformer, Mr. Griffin, proposes to call, in May or June, a meeting of metropolitan and provincial Medical officers, for the purpose of pressing on the new Parliament the necessity of modifications in the existing administration of Poor-law Medical relief. If the proposal means that the meeting will endeavour to obtain better remuneration for the Poor-law Medical Officers, we heartily concur in its object; but if, on the contrary, it is to urge the erection of palatial buildings for the reception of sick paupers, and, by doubling the poor rates, to pauperise the class just above the present recipients of relief, we must confess that we think that more than enough has been done in this direction already. We notice that the ratepayers of St. Anne's, Soho, have signified their sympathy with Dr. Rogers by rejecting as guardians the persons who voted for his dismissal.

The public have lately had an instance of the extreme difficulty which often attends the identification of dead bodies. If the body found at Hackney Wick be in truth that of the unfortunate lunatic, Benjamin Heasman, and not that of Ebenezer Clark Banks, we have an instance of one of those curious coincidences which happen in defiance of all probability. Mrs. Banks distinctly affirms that her husband had a certain mark on the forefinger of his right hand; before seeing the body she stated that, if it were the corpse of her husband, this mark would be found. The mark was there, but there was evidence enough to convince the jury that the body was not that of Mr. Banks. We recently heard of a case in which a body was exhumed for purposes of legal investigation, and was unhesitatingly identified by the friends, when the person who was supposed to be its owner was alive and well in a distant county.

The experiments by Dr. Sanderson on the production of artificial tuberculous disease may well lead the Profession to review the subject of the value of setons and issues as curative agents. Certainly these modes of producing artificial disease are not so much in vogue as formerly, but we must confess that, in the face of Dr. Sanderson's facts, we should like to see some experiments performed on animals higher in the mammalian scale than Rodentia before we subject patients to a prolonged use of the seton. Dr. E. Syson has written to the *Times* calling the attention of farmers and graziers to Dr. Sanderson's experiments with reference to the custom of setoning young cattle. This operation is performed for the same reason that our ancestors used to be bled spring and fall—to guard against plethora. He points out the newly discovered danger of substituting tuberculosis.

The maxim of "sewage to the soil and rain to the river" is receiving ample support from the experiments with the Barking Creek sewage at Lodge Farm. Every hundred tons of sewage there expended have produced a ton of Italian rye-grass above the natural growth of the land.

The mighty hunter whose exploit of bagging four elephants was narrated with such gusto in a recent *Pall-mall Gazette*, is Mr. Robinson Boustead, F.R.C.S.E., Surgeon of the Bombay Army, who was lately appointed Sanitary Officer to the Field Force in Abyssinia.

The report made to the Middlesex magistrates at the recent sessions as to the alleged ill-treatment of a prisoner at the Coldbath-fields House of Correction, who died of phthisis soon after his discharge, does not throw much new light upon the real state of the case. It appears that when the man was sent to prison he was in good health, and was reported fit for hard labour. He was committed on February 26, was in prison for two months, and died shortly after his discharge. Whilst under confinement he was seen by the Surgeon seven times, and was on several occasions excused treadmill labour. He was on bread and water for punishment during two days of the first month he was imprisoned, and during five days of the second. He was on the treadmill during twenty-six days of the whole time. The prison dietary was fixed a few years ago, and was approved by the Home Secretary. Since that time, however, the amount of hard labour exacted from the prisoners has been increased, but there has been no concomitant increase in the quantity of food allowed. The visiting justices propose to consider, and report to the court on a future occasion, whether any alteration in the existing dietary may be deemed advisable.

It is now certain that Dr. Livingstone was alive and well twelve months ago. Whether we shall hear of him at Alexandria shortly remains to be seen. If he live to accomplish the feat of traversing Africa from east to west and from north to south, he will deserve to be classed with Columbus and Cook.

The United Hospitals Athletic Club holds its next meeting for athletic sports at Beaufort House on Friday and Saturday, June 5 and 6. Swimming races are announced to take place later in the same month. The Society is under the presidency of Sir Thomas Watson, and numbers so many Hospital Physicians and Surgeons amongst its vice-presidents, that it is plain Mr. Skey's letter to the *Times* last year has not shaken the faith of Englishmen—be they Medical or no—in the benefits of athletic sports for young men. The Society has our best wishes for its success.

The danger of keeping insane persons at home in the custody of their relations has lately found melancholy confirmation at Kintbury, in Berkshire. A lady, named Westbury, suffering from melancholy, which had supervened on her confinement in the last autumn, on being left alone for a few minutes in her apartment, contrived to make her escape, and killed herself by jumping down a well of great depth.

It will be seen from our report of the late meeting of the St. Andrews Medical Graduates' Association, that a small number of the General Council of that University have resolved to oppose the admission of the Doctors of Medicine of St. Andrews into their body. They do not, it would appear, propose to exclude them from the franchise. The exclusiveness and illiberality of the proposition will not, we should think, win it much favour from the Government or from Parliament.

THE "OUT-PATIENT" DEPARTMENT.

At a moment when reforms are being urged and executed in both our social and political institutions, it may not be out of place to advert to certain anomalies which present themselves in the scheme under which relief is administered to out-patients in our large metropolitan Hospitals. We are quite aware that in touching on such a question we enter upon a problem which is by no means isolated, but which requires the consideration of very grave fundamental principles for its ultimate decision. We mean, therefore, in the first instance, to lay before our readers a few of the facts, pure and

simple, and to leave them rather to judge for themselves as to the conclusions they warrant than to advocate any particular scheme of Hospital reform. But, at the outset, we must distinctly confess our belief that the existing state of things in our large charities is most unsatisfactory both in its relation to the Profession and the public. It is not far from the truth to say that in most of our Hospitals the care of the out-patients is consigned to three or four Assistant-Physicians and a smaller number of Assistant-Surgeons, who each attend and prescribe on two days in the week. This arrangement seems, *prima facie*, a good one, but a little inquiry into the character of out-patient departments soon dispels the illusion. It is, we believe, the custom for the Physician or Surgeon in charge of out-patients to put in an appearance in his consulting-room at from about one to half-past one in the afternoon, and it is a mark of rare devotion to remain there for more than three hours. Now what has to be got through in those three hours? It is on the answer to this question that the whole point as to efficiency or uselessness hangs, and in our opinion it merits a closer examination than it has yet received. Let us take the lowest possible figures in making the computation, and give the Medical man every advantage in power of diagnosis, and see how the task of providing for the Medical wants of the poor is discharged. It rarely happens that an Assistant-Physician—we shall not include the Surgeon in our inquiries—has less than from 350 to 400 patients under his care. Many of these will doubtless be cases of long standing—chronic bronchitis, hopeless phthisis, gastric catarrh, epilepsy, hysteria, and so forth—and in most the duty of the Physician will be confined to a simple dash of the pen across the prescription-book to signify that the medicine is to be repeated. Many of these, too, present themselves but once a week, or even once a fortnight; and in this way the labour of prescribing is diminished. But when we have made all allowances of this kind, there still remains a very large balance of new cases, and of cases in which the mere "mist. repet." formula cannot be had recourse to. With these, at least, the form of examination must be gone through. Lungs and heart must frequently be examined; abdomen must now and then be explored; and questions must be asked, and often repeated. Indeed, a deaf and grumbling old woman, whose intelligence betrays itself chiefly in a general scepticism as to therapeutics, will often put the young Doctor's patience to a severe test. Such cases cannot, or at least should not, be summarily disposed of, and they constitute a sufficient proportion to render the conscientious Practitioner hopelessly dissatisfied with the result of his labours. If in our calculations we assume that of the 350 patients only one-half, or thereabouts, present themselves on the same day—and this is certainly below the mark—and if we further assume that of these 175 a fair proportion require merely to have their physic renewed, there will still be a considerable number demanding either physical or verbal examination by the Physician. Supposing we put them down at the moderate figure of 130. Now, in the name of the *ars medendi*, we ask, can they receive the treatment their affections necessitate in the brief space of three hours? In other words, what can a Medical man do towards the discovery and analysis of symptoms, the consideration of former treatment, and the composition of a prescription, if the average time allotted to each patient is rather less than *one and one-third of a minute?* Why, the thing is preposterous on the very face of it. Nothing short of therapeutic intuition could accomplish the cure of cases under such conditions. We are very few of us Crichtons in diagnosis, but we do not hesitate to aver that the proper discharge of the duties of an out-patient Physician demands an order of ability which nothing short of a new "progressive development" is capable of calling into existence. The whole system is one of those social shams whose existence, we trust, will soon be a thing of the past.

But, it will be asked, if this is really the case, if the scheme be really so effete and spurious as you describe, how comes it that it has not long ago betrayed its real character? We answer, because, first, the public generally take little interest in the matter; and, secondly, because the work of the out-patient department has always been *done* in some way or other, and there is considerable difficulty in ascertaining how it has been done. The patients are seen, and they are given physic *ad libitum*, and beyond this your out-patient cares little. So that he goes to the Doctor, and gets a good large bottle of some nauseous medicine—and the more nauseous the more he relies on it—the out-patient is tolerably satisfied. The way in which the work is "got through" is, however, peculiarly worthy of note, for it plainly points to the fact that Medical men, like their brethren in other professions, should be remunerated for their services. The work of the out-patient department falls in great part upon what are termed the "clerks" or "assistants"—that is to say, upon students who frequently have passed no Professional examination, and with whose skill in diagnosis or knowledge of Materia Medica the Physician is often little conversant. Doubtless in many instances these young men are earnest pupils, whose ability is at least sufficient to prevent their committing any serious blunder; but in other cases it is certainly true that, either from ignorance or from want of a sense of responsibility, the assistant is guilty of mistakes for which only the shelter of the Hospital saves him from being severely censured. A case in point recently came under our notice where an "assistant," through sheer recklessness, wrote *hydrocyan.* for *hydrochlor.* in prescribing for a patient with an hepatic affection, and might have—well, we won't say what—had we not seen the prescription.

Now who is to blame for all this, the Profession or the public? Most unhesitatingly we affirm that the whole responsibility of the evil effects of the present system rests on the shoulders of the public. It is absurd to suppose that a Medical man can give up both time and skill to the discharge of onerous duties without any adequate return for his services. It is all very well to say—Has he not his hope of promotion? Does he not look forward to an ultimate elevation to the Physicianship? But to this we would reply, that recent occurrences render this promotion a very questionable contingency, and that hope is often so long deferred that the usual proverbial consequence ensues. It is, we repeat, utterly out of the question to expect any Medical man who has any respect for himself, or desire to pursue the study of Medicine with advantage, to do more than is done by the overtaxed Assistant-Physicians of our large metropolitan Hospitals. Nor is this due to any lack of charity or of Professional interest on the part of the Practitioner. Those who have gone through the painful metamorphosis of Assistant-Physician know well the regret often felt that the multitudes of cases to be dealt with prevents that thorough investigation of each which the scientific Physician so keenly desires.

What, then, are the remedies for this dreadfully chronic ailment? Potentially they are various. The staff of the Hospitals might be enlarged, and the work more equably and fairly distributed, in which case some scheme of pecuniary remuneration should be employed as a substitute for impossible promotion. This plan appears to us the most feasible, and best calculated to meet the emergency; but doubtless there is much to be urged on the other side. Again, some system of State Dispensaries might be adopted, by which much of the existing burden should be removed from the voluntary charities. This idea we are disposed to rank second in order. Finally, ere any definitive method is arrived at, much may be done by the exercise of more discrimination on the part of the governors, in whom the right of giving cards of admission to patients is now vested. It is undeniable that, as at present arranged, the Hospital charity is dispensed to hundreds who are not only

not poor, but who are in such comfortable circumstances that they could well afford to call in a "General Practitioner," who is thus benevolently deprived of a fee at the expense of an institution which, in a very large percentage of instances, is in a hardly solvent condition. At any rate, whatever may be the best mode of redressing the present grievance, there cannot be the least question as to the existence of a serious evil; and we trust the Profession, in justice to itself, will take immediate and effective measures to suppress it.

MORTALITY IN THE MERCANTILE MARINE.

An important contribution to vital statistics has recently issued from the office of the Registrar-General of Seamen. Last year, on the motion of Mr. Graves, M.P., a return was laid before Parliament, showing the number and causes of death in the crews of merchant ships in the year 1866. From this it appeared that the total number of deaths in that year, obtainable from official documents, amounted to 4866. Of these 2476 were the result of disease, 1219 were caused by drowning or other accident, and 1171 by shipwreck. In the return for 1867 the deaths from natural causes were somewhat fewer; but those from drowning, and notably from shipwreck, were far more numerous, amounting to no less a figure than 2913. Deaths from disease in the year 1867 are stated to be only 2370, which seems a small ratio compared with those from accident. The total from both causes amounts to 5283. What proportion this bears to the whole strength of the merchant service is not determined. Papers are, we believe, in preparation which will give some approximation to the truth. But until the numerical force of the class of men among whom this striking mortality occurs is ascertained, we can form no adequate notion of the real sanitary status of the mercantile marine, nor institute comparisons with the Army and the Navy, the Customs, and other departments of the public service, of whose Medical statistics we possess correct and authentic data. Meanwhile we have analysed the somewhat incongruous catalogue of upwards of a hundred mortal ills, compiled from the official log-books sent into office. They cannot be relied on as scientifically exact causes of death, for probably, in the majority of instances, the terms have been given by ship captains or other unprofessional persons. But by arranging them in broadly defined classes we may convey to our readers a tolerably fair approximation to the truth. Febrile diseases appear to have been fatal in 761 cases; of these, 346 are referable to yellow fever or black-vomit, 21 to small-pox, 1 only to measles, the remaining 393 to "fever" under various heads or under no other name. The fatal cases of disease of the lungs and air-passages were 218 in number, of which 150 are said to have been from consumption or "decline." The deaths ascribed to heart disease are 75; only 2 are set down to aneurism; diseases of the brain and nervous system yield 107 deaths, of which 45 are attributed to apoplexy, and only 8 to delirium tremens. Lockjaw was fatal in 7 cases; fits, epilepsy, and convulsions in 18. Under the title "brain diseases" 19 cases of death are recorded. Of 511 deaths from diseases of the bowels, liver, etc., cholera is credited with 212, diarrhœa with 38, and dysentery with 214. Rheumatism and rheumatic fever show only 7 deaths; Surgical diseases only 33, including 11 from venereal and 4 from stricture. Scurvy has 52 victims; the rest come under many vague heads, including 31 from "natural death," and 154 "unknown." Besides the appalling number of nearly 3000 drowned, there appear to have been 249 accidental deaths, and 69 others of a sudden or violent character—as, murder or stabbing 16, suicide 16, sunstroke 8, excessive drinking 6, cold and hunger 8. It is provided by the Merchant Shipping Act that every case of illness or injury in the crew be recorded in the log-book, with a short account of the symptoms and result, and the mode of treatment adopted. This is really as much as is necessary to be done in such ships as carry no Medical officers. But we fear that, simple and easy as the instruction is, it is carried out in a very perfunctory manner. There can be no satisfactory legislation on sanitary subjects without data of a much more precise and reliable character than those which are afforded under the present system of official log-books. We hope the Board of Trade will look to this matter, which is of greater moment than may at first seem. A little pressure on their part would secure more accurate returns from the captains of merchant vessels. An inquiry into all cases of death occurring at sea or in foreign ports should be made on the return of the ship to this country, not only, as at present, with the view of ascertaining that the death was not caused by ill-usage, but with the object of procuring, at a very cheap and easy rate, a mass of valuable sanitary information, of great importance for testing the results of the laudable endeavours that have recently been made in the interest of merchant seamen, and for indicating what is yet to be done to ameliorate their condition.

ROYAL GUESTS.

It is not often that members of our Profession are entertained in "kings' houses," and it is still more seldom that they have the opportunity of appearing in the character of hosts to royal personages. An instance of the latter is, however, about to occur in Dublin during the ensuing week, when the Lord Mayor of that city will have the distinguished honour of receiving their Royal Highnesses the Prince and Princess of Wales at a ball in the Mansion-house. We have no doubt that the high character of Irish hospitality will be fully maintained, and we hear that it is not unlikely that the royal visit will be followed by a recognition of the Lord Mayor's position which will be acceptable to the corporation which he represents and to the Profession to which he belongs.

POPULATION IN FRANCE.

The reports recently furnished to the French Minister of Agriculture on the subject of the extent of distress among the agricultural classes in that country, mention, among other causes, the want of labour, which is attributed to the conscription for the army, and also to the various industrial undertakings and immense public works being carried on in Paris and the other large towns. Statistics show that the rural population is on the decrease, and that the deaths exceed the births. This does not depend upon emigration alone, as immorality contributes largely towards the result. Luxury and the love of pleasure have invaded most parishes. The number of natural children increases, and of legitimate ones decreases. "The peasant of to-day is determined not to have children. To counteract this tendency it is demanded that the Government should encourage large families by freeing them from taxation." If such exemption were to be ordained in this country, how the British paterfamilias and taxpayer would exult in the number of olive branches round his breakfast-table!

FROM ABROAD.—MORTALITY AMONG GERMAN PROFESSORS—GLYCERINED VACCINE VIRUS—VIABILITY OF FRESH AND SALT-WATER FISH—TRAUMATIC INJURIES OF NERVES.

The deaths of German Professors have been of late very frequent. In addition to that of Otto Weber, of Heidelberg, cut off suddenly in the midst of the full tide of scientific celebrity, we have to notice the decease of a man still more generally known in this country, Dr. Ludwig Turck, of Vienna, of exanthematic typhus, at the age of 56. His career has been a very successful one. Early distinguishing himself in the study of mental pathology, he was encouraged and patronised by Baron Turkheim, the enlightened Minister for Medical Affairs, who created for him a division of the Vienna General Hospital, to which institution he was appointed senior Physician in 1857. His numerous papers and essays on

nervous pathology are well known, and brought him great reputation, but since 1857 he has almost exclusively devoted himself to the perfection and demonstration of the laryngoscope, and since 1860 he delivered an annual course on the subject, although not appointed Professor until 1864. Whatever opinion may be held as to his or Czermak's priority in its employment, no one has any doubts how much he has done to improve and popularise laryngoscopy. Another distinguished physiologist and naturalist we have lately lost is Professor Albert von Bezold, of Wurzburg, who has died at the early age of 32, after a long illness dependent on disease of the heart. He was known by the appellation of "the youngest Professor in Germany," having been called to the chair of Physiology at Jena, in his 23rd year, while assistant in the Berlin Physiological Institute, and before he had even received his Doctor's degree. He had been there but three years when he was promoted to Wurzburg, and appointed Professor and Director of the Physiological Institute. His popularity there was extreme, and his loss is felt as a severe blow to the school. Another celebrated man, Dr. Carl Mayer, of Berlin, has, at all events, died at a ripe age, that of 73, in the full enjoyment of his great reputation for skill in the treatment of diseases of women, for which he was consulted from all parts of Germany. Although not actually a professor, by reason of the number of pupils he had educated, his influence among Practitioners in his own branch of Medical science was very great. He was also the founder, in 1844, and the warm supporter of the well-known Berlin Obstetrical Society.

Geheimer Rath Müller, Director of Vaccination at Berlin, observes, in a recent letter, that he had hoped it would not be necessary for him to write any more concerning the advantages of vaccine virus diluted in glycerine. Finding, however, that some prejudices and ignorance still obtain on the subject, and in presence of an epidemic of variola now prevailing in Prussia, where, in many places, Practitioners find it impossible to obtain virus in sufficient quantities for revaccination, he feels it incumbent upon him to state that a two years' experience in the use of his glycerined virus justifies his warmest recommendation of its employment, and that some lymph, thus preserved for nearly two years, still retains its efficacy. Of course, those who by carelessness have mixed lymph unfit for use with glycerine, or have mixed good lymph with impure glycerine, may well have been disappointed in the results obtained. He adds that, on the breaking-out of variola in the prisons, 2000 persons were immediately revaccinated, which could never have been done in the month of February without the stores of glycerined lymph supplied by the establishment. Moreover, this rapid revaccination arrested at once the progress of the epidemic.

Professor Bert, of Bordeaux, communicated lately to the Paris Biological Society some of the results of an investigation he is engaged in. Almost all salt-water fish, and especially those which range over great distances, die rapidly on being placed in fresh water, while most fresh-water fish speedily perish when placed in salt water. This is the case not only with fish, but also with crustacea and mollusca, etc. It is true that when the transition is brought about slowly and gradually remarkable examples of tolerance may be observed. This is the case in a state of nature with regard to the salmon, eel, lamprey, and others, while Beudant and other experimenters have exhibited still more remarkable examples of such tolerance. But in the cases of rapid death to what is this death due? Most probably to the difference in osmotic power between salt and fresh water—a difference which in fish with a uniform surface operates upon the entire body, and on those protected by a cuirass acts especially on the respiratory membranes.

The density of a liquid being generally proportionate to its osmotic power, Professor Bert has sought, in simply increasing the density of fresh water, by the addition of an inoffensive substance, until it equalled the density of sea water, to ascertain whether it would become less dangerous to salt-water fish. To this end he employed sugar, for solutions of glycerine and especially of gum, made of the necessary strength, rapidly killed the fish. The following are the mean results of a series of experiments:—The *Sparus mendola*, placed in vases of the same capacity, died in 86 minutes in fresh water, and in 153 minutes in sugared water. Mullets died in 44 minutes in the one and in 68 in the other. So that, at all events for these descriptions of fish, the action of density is obvious, although it is extremely probable that it is only one of the factors of osmotic power. The Professor hopes to continue his investigations under the auspices of the Scientific Society of Arrachon, which is about to place at the disposal of naturalists aquaria, basins, and laboratories.

The subject of traumatic division of nerves was continued at the Paris Society of Surgery by a report of M. Tillaux on M. Paulet's interesting paper, to which we recently (*Medical Times and Gazette*, April 4) referred. M. Tillaux agreed with the author of the paper as to the reality of the great discrepancy in the results derived from experimental and clinical observation, the latter clearly leading to the conclusion that "a part of the body may preserve its sensibility, although the principal nervous trunk distributed to it is no longer in communication with the encephalon." To the cases in proof adduced by M. Paulet, other members of the Society added further examples during the discussion, but none were able any more than the author of the paper to give any satisfactory explanation of the difference in the results derived from experiments and from Surgical practice. The most plausible was that of M. Broca. Commenting upon the explanation of the occurrence by the supposition of the existence of nervous *anastomoses*, he observed that first we must have an exact idea of what this term implies. It must not be supposed to be similar to that which takes place between blood-vessels, allowing the nervous fluid to circulate, as it were, from nerve to nerve, passing by collateral channels when one of these is obstructed. It is simply an *anastomose par accolement*, in which a nervous filament is detached from one trunk and embraces another. But this description of anastomosis may explain the great discrepancies observed after divisions or excisions of nerves:—

"In fact, just as there may be aberrant vessels, there may be *aberrant nervous filaments—i.e.*, filaments which, detached from the principal trunk at a distance more or less near its origin, pursue a more or less long course out of the normal track, attach themselves for a greater or less distance to another nervous trunk, and then, resuming their proper course, again unite with the primary trunk near to its termination. Thus a more or less voluminous filament of the median nerve may be detached from this nerve, even on a level with its origin in the brachial plexus, and, in place of following the course of the median nerve, may attach itself to the ulnar, again to join the median near its termination. Suppose the median nerve to be interrupted in its continuity in any part of its course between the point where the aberrant filament is detached from it and the point where it joins it again, sensibility and motion, in spite of the solution of continuity, will not be completely abolished in the parts to which the median is distributed, because they will continue to receive their innervation, in a less complete manner it is true, by the agency of the aberrant filament remaining in communication with the nervous centre. In this manner we can very well understand the differences pointed out by M. Paulet in his memoir. There are degrees in the preservation of the nervous functions according to the number of aberrant filaments in this or that individual. It is a physiological anomaly explained by an anatomical anomaly.

COLLEGIATE LIBERALITY.—The Council of the Royal College of Surgeons, at its last meeting, sanctioned, on the recommendation of the Library Committee, the presentation to the library of the Obstetrical Society of London the duplicate works of Midwifery and Diseases of Women and Children, which have accumulated in the College library.

THE ALLEGED GANGRENE AT NEWCASTLE INFIRMARY.

(*From a Correspondent.*)

I AM glad to state that at present there is not a single case of gangrene at the above institution; and I am given to understand that the cases referred to in your impression of the 11th inst. resulted more from imperfect dressing than defective nursing—a fact fully borne out not only by the Resident Medical Officer, but also by the four clinical assistants, who published their opinions in a letter, with their names appended, in the local press. With regard to the case of bleeding alluded to by Dr. Gibb, the facts are as follows:—A French seaman had his hand injured at sea, and for several days the injuries he had received remained undressed or untreated; and, on the arrival of the vessel in the Tyne, he was at once removed to the Infirmary. On his admission into the Hospital his hand was found to be in a gangrenous condition. Hæmorrhage occurred four times in one day, and the patient's hand was amputated by Dr. Bolton, the Resident Medical Officer. The hæmorrhage was, in each case, immediately suppressed by the clinical assistant. With reference to the statement that there was no night nurse in attendance, I am assured that there was one. After amputation the man rapidly recovered, and left the Hospital quite convalescent. The French Consul subsequently called at the Infirmary to thank the officials for the attention they had shown his countryman. It may be added that there has not been a single case of death recorded in the books of Newcastle-upon-Tyne Infirmary from actual gangrene. When death occurred, the fractures and wounds were of so frightful a nature as utterly to preclude the possibility of recovery.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE first session of 1868 was held at the rooms of the Medical Society of London on the 8th inst. Nearly sixty members were present. The President, Dr. Richardson, was in the chair. Ninety-nine new members, seven Associates, and sixteen honorary members were elected.

The HONORARY SECRETARY read a report on the proceedings which had been taken in regard to the Parliamentary and the University franchise.

Dr. GREENHALGH brought before the notice of the Association the recent action of the General Council of the University of St. Andrews. It appears that this body, consisting of 368 members, held their half-yearly meeting lately, when twenty-three of their number attended and resolved to petition Parliament against the admission of the M.D.'s to the General Council. He protested very strongly against the tone of the remarks of some of the speakers, and proposed that some action should be taken in opposition to this move on the part of the General Council.

Drs. Crisp, Drysdale, O'Connor, Cleveland, Professor James, and the President, took part in the discussion which followed as to the best means to be adopted in regard to this matter.

Dr. CHOLMELEY proposed: "That the Honorary Secretary be directed to draw up a statement showing the grounds on which the Doctors of Medicine claim a right to be placed on the General Council of the University, and refuting the arguments raised against their admission; and that he be also directed to forward such statement to the governing bodies of the University with an expression of the deep regret of this Association at the determination of the General Council to oppose the claim of the Doctors of Medicine, and of the hope that this opposition will not be persevered in."

This resolution was seconded by Dr. Ross, and carried unanimously.

The PRESIDENT brought forward the subject of the Registration of Disease. He recounted the previous attempts at the accomplishment of this most desirable object, some of which had met with no inconsiderable, although but temporary, success. After reminding the members of the importance of the subject and of the valuable results which would arise from a knowledge of the earliest appearance of an epidemic or its persistency in one locality, and this measured not by its fatality but by its existence, he briefly described his plan. He said that a very simple alteration in the forms sent in to the guardians of the poor every week by the Union Medical Officers would provide the material needed. He proposed that these returns, having served their local purpose, should be sent weekly to the Registrar-General's Office, and there classified and arranged for publication. The Meteorological Reports could be appended in brief, and a scheme of the registration of disease, such as was yet in existence in our country, could be obtained. He added that his proposals would entail no additional labour on the already hard-worked Poor-law Medical Officers.

Dr. CHOLMELEY proposed: "That the Earl of Devon, President of the Poor-law Board, be requested to receive the President and other members of the Association as a deputation on this matter."

Dr. ROYSTON seconded the resolution, and it was carried unanimously.

The very hearty thanks of the Association were offered to the Medical journals for the efficient support they had given to the Association in its attempts to vindicate the rights of the Doctors of Medicine of St. Andrews.

It was arranged that the next session of the Association should be held in the autumn at Hempstead, in Essex, the place of Harvey's burial.

At the close of the meeting Dr. ROYSTON said: Mr. President, before the meeting closes I wish to ask you a question of some importance. I, and I believe all the graduates, have been canvassed for our votes by two competitors for the representation of the University in Parliament. I want to know whether the Association has yet indicated any predilection on this point, and whether it is proper that I or any graduate should give a pledge for the support of any candidate.

The PRESIDENT: The Council of the Association has not as yet even considered the claims of rival candidates, and I should hope it will do nothing whatever on the subject until the Bill has passed, and the vote is an actual possession. To secure that end is the present work of the Association, and when the position is certain, it will be time to use it, not before. Then, in my opinion, it would be expedient to call a general session, at which the merits of the several candidates could be discussed, and the most approved name submitted to the Association for its unanimous support.

DR. LETHEBY ON THE CHOLERA OF 1866.

*** THE following are the portions of Dr. Letheby's paper, read before the Metropolitan Association of Medical Officers of Health,' which contain his views on the march of cholera, and his objections to the view that water was the vehicle of its great spread in East London in 1866:—

The history of the cholera epidemic of 1866 and 1867 is remarkable in many respects; for it not only shows great eccentricities as regards the disease itself, but it also exhibits much capriciousness on the part of those who have studied it. Compared, indeed, with former visitations of the disease, and notably with those of 1831-32 and 1848-49, the recent epidemic displayed such marked differences in its route, its rate of progress, its duration, and, in fact, in nearly all its concomitants, as to provoke hypothesis.

In the memorable visitations of 1831 and 1848 the disease came to us from India, where it had been severely epidemic for a year or two before its appearance in Europe. Not so, however, on the last occasion; for, although there was some mortality from the disease among the troops in Bombay, yet there was no serious outbreak of the malady—in fact, the Peninsula had been more than usually free from cholera for several years. Not that it was absent from the country, for it yearly causes a large mortality of both Europeans and natives, and this has been so ever since the terrible appearance of it in the Delta of Ganges in 1817; but it had not assumed an epidemic character since the year 1861.

And then, with regard to the course of the disease, instead of coming to us by a north-western route through Russia, it passed at once by the track of commerce through the Mediterranean. In both of the former visitations, the lines of route were nearly the same. Starting from the North-Western Provinces of India, it journeyed westward in three directions. One of these was through Afghanistan and Persia to the southern extremity of the Caspian Sea, where its progress northward by land was stopped by the high ranges of the Caucasus; but, coursing along the western shores of the Caspian, it reached the city of Astrachan, and there it rested for

the winter. In the following spring, it started again on its course, and, traversing Russia by the Volga and its tributaries, it reached Moscow on both occasions in the month of September. There it again halted for the winter; and in the following spring it moved forward in a north-westerly direction, and arrived at St. Petersburg in the months of June and July. It then branched off in two directions—north-westerly through Finland and by the Gulf of Bothnia into the North of Sweden, where it was soon arrested by the cold; and south-westerly by the Baltic into Sweden, Denmark, and Prussia; and so across the German Ocean into one or more of our eastern ports.

The second line of route was from India by the Persian Gulf to Bussora, and thence by the Tigris and Euphrates into Asia Minor, spreading southward along the eastern coast of the Mediterranean into Egypt, and northward through Asiatic Turkey to the shores of the Black Sea. Then, following the coast-line of the country from Constantinople, it reached the mouths of the Danube, and so passed westward into European Turkey, and northward and westward into Hungary, Austria, Moravia, and the States of Germany.

The third course of the disease was along the northern shores of the Mediterranean into Italy, France, and Spain.

Broadly, therefore, these may be regarded as the routes taken by the disease in its former visitations of 1831 and 1848, that of 1854 not coming to us from the East, but being developed from foci already existing on the Continent. There were, of course, eccentricities in its movements, for sometimes it would turn back upon itself and reappear with extraordinary virulence in places where it had almost died out. At other times it would jump over considerable spaces of territory, and show itself at nearly the same time in places widely apart; but still, with all this apparent capriciousness, there were certain well-marked lines of progress, which not only characterised its movements, but also gave timely notice of its approach.

Not so, however, with the recent epidemic, for the course of it was almost directly westward from India through the Red Sea and the Mediterranean. Brought from its tropical home by Mussulman pilgrims journeying to Mecca to celebrate the feast of sacrifices (the Kourban-Beiram), it there became intensified among the multitude of not less than 200,000 devotees, who were surrounded by the festering carcases of a million or more of sheep and camels that had been slaughtered for the festival, and were living in utter violation of all the rules of health and cleanliness, it committed sad havoc among the congregated pilgrims. Ere the festival was over, the terrified worshippers of Mahomet began to disperse, and they carried with them the disease. In this way it soon reached Alexandria, Suez, and Cairo, whence it spread in all directions.

And the time of its transit to Europe was singularly short. In the epidemic of 1829-32, a year elapsed before it reached a European port; Astrachan was attacked in July, 1830; Hamburg in September of the following year; Sunderland in October of the same year; and New York in the month of June of 1832. So that, as Mr. Radcliffe observes, nearly fourteen months were occupied by the epidemic in traversing the continent of Europe; fifteen months in reaching Great Britain; and two years, less one month, in arriving on the North American coast.

And in the epidemic of 1845-49 nearly the same time was occupied in the progress of the disease through Europe; for it arrived at Astrachan in June, 1847; at Hamburg in September of 1848; in England in the same month; and in New Orleans in the following month.

But so rapid was the course of the disease on the last occasion, that hardly two months elapsed from the time of its occurrence at Mecca to its appearance at Marseilles; and in less than six months it had spread from the coasts of the Euxine to the Western Hemisphere.

The dates as they are recorded are as follows:—On May 10, 1865, it was decimating the pilgrims at Mecca; on May 12 it was at Jedda; on the 22nd of the same month it was at Suez; eleven days later (June 2) it was at Alexandria; a fortnight after (June 17) it was at Cairo; three days after at Malta; in four days more it was at Smyrna; and on June 28 it was at Constantinople. It then followed the track of commerce, appearing at Ancona on July 8; Gibraltar on the 19th; Barcelona on the 22nd; Marseilles on the 23rd; Odessa on August 6; Southampton on September 17; and Guadeloupe on October 20.

At first it confined itself to the shores of the Mediterranean, but during the autumn of 1865 it passed inland into Italy, Spain, and the south of France; and soon it appeared with terrible severity in Paris—so that in the months of October and November of 1865, it there caused about 6000 deaths. Touching us lightly (for it reached Southampton in the middle of September, and was fatal to thirty-five persons), it disappeared for the season—one death only having occurred in London, and that was of a woman who came here ill from Paris, and died on October 22, 1865.

Early in the spring of 1866 (April 21) the disease appeared at Rotterdam, and then at Antwerp (May 19). It was in London a little later (May 28), and later still at St. Petersburg (June 26), Memel (July 10), Dantzic (July 12), and other places. In every case, however, the disease was imported. It came to us with German and Dutch emigrants from Rotterdam, and was thus brought to Hull, Liverpool, and London; and it was carried in like manner to New York.

The mortality returns for the metropolis show that the first deaths from Asiatic cholera in 1866 occurred at Walworth on May 28. On June 13 another such death was recorded at Newington; a fortnight later (June 27) two deaths from it occurred at Bromley; two days after (June 29) a fifth was returned at Hammersmith; then a sixth (July 5) in the Borough-road; a seventh and eighth on July 9 at Hoxton and Bermondsey; and during the week which ended on July 14 there were 48 deaths from the disease in London, of which 13 were in the eastern districts of the metropolis. This was the beginning of the epidemic; for in the next four weeks the mortality from it quickly rose to 1169 in the week, and then it gradually declined; in fact, the largest mortality from the disease was in the week ending August 4—that is, a month after its decided appearance in London. In the epidemic of 1854 the mortality was greatest in the ninth week, and in that of 1849 it was at its climax in the fourteenth week. The duration of the epidemic (six months) was also short compared with former visitations. . . . .

But difficult as the problem is to determine the exact value of the several circumstances which influence the severity of the disease, and especially those which give to it its marked local intensities, enough has been ascertained to indicate its general habits, and to show that it fixes itself at low levels in proximity to tidal rivers, among dense populations, that are living in ill-constructed houses, that are filthy, badly ventilated, badly drained, and generally defective of sanitary provisions; and the inference is that the actual agent of cholera, be it what it may, can only find congenial conditions for its full development in damp and impure air.

The theory of Pettenkofer is that the essential conditions for the active manifestations of the disease are a porous soil, charged with excrementitious matter, and having a certain degree of hydration, as happens when the subsoil water has been just drawn off or is slowly retiring. All these conditions were singularly coincident with the localisation of the disease in the eastern districts of London; for the soil is gravelly and therefore very porous to air and water, and it is largely charged with excrementitious matters derived from the local tide-locked sewers. It is also remarkable that for some months before the outbreak of the disease, the subsoil water had been gradually sinking in consequence of the drainage operations that were necessary for the construction of the main low-level sewer, and its branch to the Isle of Dogs. Now, according to Pettenkofer, it is exactly under these circumstances that a district is most liable to choleraic infection.

Another theory which has been advanced to account for the local character of the outbreak is, that the water distributed to the infected districts was charged with choleraic matter; but looking at all the facts of the case, it is clearly evident that while none of them are discordant with Pettenkofer's theory, a large number are in open and direct antagonism to the water hypothesis. In point of fact it is necessary for the acceptance of such a speculation, not only that some clear proof should be given of the actual pollution of the water with choleraic matter, but also that the time of the outbreak throughout the infected district was coincident with the distribution of such water, and that it did not notably fail to produce the disease wherever it was sent. It is likewise necessary to show that the disease was strictly confined to the area of such distribution, and that the use of other water was not accompanied with like severe results.

The alleged pollution of the water rests upon a series of assumptions, many of which are in the highest degree improbable. It happened that two deaths from cholera occurred on June 27, at Bromley, immediately in the neighbourhood of the East London Water-works, though far removed from their source of supply; and it is assumed that the alvine

discharges of the two sick persons were cast into the privy and found their way, through the sewers, into the river Lea, where, by being diluted through a large volume of water, they passed upward against the current of the stream, and arrived opposite an open, but rarely used, reservoir of the Water Company; that they then soaked through a thick embankment, and so obtained access to the water of the uncovered reservoir; that on a certain day some of this water was admitted into the covered reservoir, from which the public supply was taken; and that it was thus distributed to the district supplied to the Company. But if, for the sake of argument, it were admitted that all this did in reality happen, it would be a curious mathematical problem to determine what was the degree of final dilution after the alvine matters had entered the sewers, then the river Lea, then the open reservoir, and, lastly, the covered reservoir; for it is not supposed that the choleraic discharges were bodily conveyed to the covered reservoir, but that only a small portion of each of the successive dilutions became mixed with larger and larger volumes of water.(a)

Apart, however, from the improbabilities of these assumptions, it is a fact that the water which is said to have been thus polluted did not produce its effects in the several districts to which it was distributed in anything like uniformity of time or force. Suppose, by way of illustration, that alcohol or arsenic had become mixed with the water, and that on a certain day it was distributed to the public, we should expect to find that the action of the poison was not only manifested at the same time over the whole district of supply, but that it was confined to that district. Not so, however, with the water in question, for although it is not alleged to have been more than once polluted, yet the first effects in the several districts occurred at long intervals; and there were many places to which it was distributed, where there was no sign of the disease; while others which did not receive the water, were seriously affected.

The dates of the outbreak of the disease in the districts supplied with the East London water, were as follows:—Bromley, June 27; Poplar and Bethnal-green, June 30; Shoreditch and Mile-end, July 7; Whitechapel, Stepney, and St. George's-in-the-East, July 14; and the East London Union, July 28. A month therefore elapsed between the first outbreak of the disease in the several districts. It is, moreover, remarkable that while it was so violent in many of the districts of supply, it was absolutely powerless in others. The death-rate, for example, of Bethnal-green was 63 per 10,000 of the population; Whitechapel, 78; Poplar, 85; and St. George's-in-the-East, 93; whereas the districts of Stamford-hill, Upper Clapton, Walthamstow, Woodford, Wanstead, Leytonstone, Buckhurst-hill, North Woolwich, and Silvertown,(b) were absolutely untouched by the disease, notwithstanding that they received the same water, and at the same time.

More remarkable still, there were places in the very heart of the cholera field, and others close adjoining it, where the residents received the same suspected water, and used it freely, without suffering in the least degree. In the Limehouse School, around which the cholera was frightfully fatal, there were 400 children who drank the same water as their neighbours, and yet there was not even a case of diarrhœa among them. In the London Hospital, which is also in the heart of the cholera field, for it is surrounded by the districts of Whitechapel, Bethnal-green, Mile-end Old Town, and St. George's-in-the-East, there was an average resident population of 463 persons, and, although they drank freely of the unfiltered East London water, yet there was not a case of illness among them.(c)

Again, in the Eastern Division of the City of London, which adjoins the cholera field, the suspected water was supplied to 161 houses, with a population of about 1732 persons, but, except in one of these houses (20, Somerset-street), which is on the boundary of Whitechapel, there was not a single death from cholera,(d) and, to verify this, I have obtained the addresses of all the persons who died in the cholera ward in Bishopsgate-street. But, besides this, the disease was singularly fatal in places where the suspected water was never used. In Crown-court, Blue Anchor-yard, Whitechapel, where the water supply is from the New River, the mortality was at the rate of 284 per 10,000. In Boar's Head-yard, of the same district, which is also supplied by the New River, the death-rate was 193 per 10,000; and indeed there are eighteen courts in Whitechapel, where none of the East London water was used, and yet, out of an aggregate population of 4351 persons, there were 30 deaths from cholera, the mortality being at the rate of 69 per 10,000; that of the whole district being but 77.

Another such instance is the case of the City of London Union at Bow. In the midst of the cholera districts it suffered in common with the whole neighbourhood, for out of 765 persons it lost 27 from the disease, which is at the rate of 353 per 10,000. But during the whole of the time the residents used no other water than that from a deep artesian well, which, on being analysed, was found to be good and wholesome.

So that, on carefully examining the facts in their relation to the water theory, we find—

1. That there is no proof whatever of choleraic pollution of the water.

2. That there was no coincidence of time in the appearance of the disease in the several districts supplied with the suspected water.

3. That numerous districts receiving the same water, but situated at high level, or placed beyond the cholera field, were entirely exempt from the disease.

4. That even in the very heart of the cholera field, there were places receiving and using the suspected water with impunity.

5. That other places not supplied with the water, but situated within the infected area, suffered equally with the neighbourhood.

I am far from wishing it to be thought that choleraic matter diffused through water will not produce disease. There is abundant evidence to show that it is often a prolific source of it; but I am anxious, in dealing with a question of so much public importance as the origin of the late epidemic, that none of the facts should be perverted, and that no hasty or ingenious hypothesis, without solid foundation, should take possession of the public mind. In the conduct of inquiries like this, there should be a calm, a full, and a candid examination of the facts—we should endeavour to study the phenomena in a philosophical spirit, and apply to them the tests of sound induction; we should strive also to deduce from them such laws as will not only expose the nature of the malady, but will, at the same time, enable us to treat it successfully. Rash opinions, boldly asserted and tenaciously held, though they may force themselves on public attention, rarely lead to useful results; and while they have their hold on the popular mind they seriously hinder the progress of real knowledge.

(a) [illegible] other supposed source of pollution, the cholera [illegible] Bow, [illegible] the waters, for this hypothesis is [illegible]

(b) Silvertown was [illegible] the end of the epidemic, when no water theory could account for it.

(c) [illegible] in the Hospital, but they were ill [illegible] the disease. A nurse who lived at the Hospital died [illegible]

(d) [illegible] in this house [illegible], but [illegible] was [illegible]; she, also in the last week of August, and the second in the [illegible]

REVIEWS.

A System of Medicine. Edited by J. R. Reynolds, M.D., F.R.C.P., Professor of the Principles and Practice of Medicine in University College, etc., etc. Second Volume. 8vo. London: Macmillan and Co. 1868.

[Second Notice.]

Our first notice of this valuable publication reviewed that part of it relating to diseases of the nervous system, written by various authors, and occupying four-fifths of the volume now before the public. The remainder is an instalment of those of the digestive system, consisting of a contribution on "Diseases of the Stomach," entirely by Dr. Wilson Fox. Perhaps it would have been more interesting if this important subject had been handled by several hands, restrained within their proper limits, of course, by the stern scissors of the editor; for we then should have had the opportunity, enjoyed in the case of head complaints, of viewing it through differently constructed, or at least differently coloured media, and gained more suggestive, if not truer, ideas about its obscurities. Questions of practical pathology, when regarded from one point of view only, are apt to assume an unnatural clearness of outline, which vanishes when we come to cope with them in actual life, and we are all unready for their newly discovered mistiness. However, we must allow that there is a neatness and finish, and an absence of overlapping, about the mode

adopted by Dr. Reynolds, which at all events reviewers ought to be grateful for, so much it eases their task.

Dr. Fox clears the ground of the necessity for a good deal of repetition by a preliminary sketch of the physiological functions, as exhibited in a disordered state during the course of gastric disease. He classes them as follows :—Disorders of sensation, of movement, of secretion, of digestion. Disorders of *sensation* are, in fact, the presence of sensation where there ought to be none—in every instance, we believe, a *painful* sensation. Dr. Fox well remarks on the real difficulty that exists in distinguishing this, when of neuralgic or spasmodic origin, from that which accompanies organic changes of tissue, and, both here and under the various heads of those organic changes, gives valuable hints on the diagnosis. But the greatest step is to acknowledge the difficulty, which is too generally ignored by writers of monographs and by their readers. Among disorders of *movement* the most conspicuous is vomiting, for the diagnosis of which, when arising from the stomach, from that caused by distant organs, Dr. Fox suggests that the former is preceded by nausea, which it relieves; whereas the latter is rarely preceded by nausea, and, if it is, does not relieve it. If this is correct, which we have no reason to doubt, sea-sickness (the nausea *par excellence*, according to the derivation) will escape from the category of being a functional disorder of the brain or spinal cord, and be restored to a gastric origin. The author here disposes of sarcina ventriculi as an accidental mould growing on the surface of the contents of the stomach, or any other warm decaying organic matter or human secretion. He does not treat it specially as a cause of disease, as at its first discovery physicians were prone to do. Disorders of *secretion* Dr. Fox places under the categories of "excess, deficiency, and perversion," and labours hard to support that neat threefold division. But in the case of "excess" we do not think he has been successful; he is obliged to instance *pyrosis*, the fluid of which comes from the salivary glands, and is not in excess, but simply unabsorbed (as explained in Dr. Chambers's "Indigestions"), and two very obscure cases related by M. Chomel many years ago, under the name of *Dyspepsie acide grave*, to which no one has seen a parallel. "Perversion" also he illustrates only by the instances of uræmia and diabetes, in which urea and sugar respectively have been detected among the secretions of the stomach. Now, this urea and sugar are simply accidental additions to the gastric juice, which is saturated with them as all the tissues of the body are. We do not call the urea or sugar found in the brain a "perversion" of the cerebral secretion. The fact is that the errors of secretion are really all diminutions or arrests. Disorders of *digestion* are, of course, all on the side of deficiency; nobody complains that he overdigests his food — except, perhaps, Mr. Banting, who wanted to go on living on bread and milk, without the physiological consequences.

This brings us to indigestion, called here atonic dyspepsia. The epithet might easily be omitted, for the author does not, like his predecessors, describe an "inflammatory" dyspepsia, but very properly classes the cases formerly described under that term as gastric catarrh. Dr. Fox is very cautious in what he says about the morbid anatomy of dyspepsia—anxious indeed to connect its clinical history with those degenerative changes in the gastric glands observed by Dr. Handfield Jones and others in the dead body, but unable at present to do so. But does not the fact of his devoting nine pages to the treatment render remote any likelihood of such a connexion? Nine pages devoted to treatment (and concentrated pages, too) show that it is eminently a curable disease, which glandular degenerations are not. To the part on treatment just alluded to we must assign high praise. The way in which the measures which have the sanction of the author's experience are rated in comparison with those which have the sanction of others only, or traditional authority, or physiological recommendation, is very judicious. His reason also for the enumeration in the list of many remedies of second-rate importance is good, and might be applied to other chronic diseases. "No single plan of medicinal treatment should be too continuously protracted, and a change of remedies within the limits of those above indicated is often productive of good effects. Many that seem at first beneficial lose their efficacy after a time, and may be advantageously replaced by others of a different class, according to the predominance of individual symptoms," &c. We might add that a change of doctor is also often advantageous. His plan of treatment may be described generally as tonic and stimulant, which also he applies to the "neuroses" or non-febrile exaltation of sensibility of the stomach, remarking that their cure by the same means affords valuable evidence of their similarity of nature.

Dr. Fox restricts the term gastritis to catarrh of the stomach. The most important argument in the discussion of its ætiological pathology is that which points it out as a disease of debility, either local or general, affecting the young, the aged, and the invalid rather than the robust adult, and excited by depressing causes, such as starvation, mechanical irritants or overloading, swilling cold water, exposure to high winds and changeable weather and epidemic poisons. The woodcuts of the glandular structures in a state of acute catarrh, and illustrations of the mode in which follicular ulcers are formed, are interesting, as are also those of the chronic degenerations of the mucous membrane which are the causes or consequences of chronic catarrh.

The remainder of Dr. Fox's labours is given to tissue lesions of the gastric walls, ulcer, hæmorrhage, hypertrophy, cardiac and pyloric stricture, softening, perforation, rupture, tubercle, cancer. Of these, the two first are the most interesting to the practitioner, not only on account of the gravity of their symptoms, but more especially as admitting of cure, and indeed tending essentially in that direction if not impeded by accidents and mismanagement. We are glad to see, therefore, that Dr. Fox allots to them the lion's share in the distribution of his pages, and does not waste our time over a mere *contemplatio mortis*.

In concluding our notice of this second volume, we believe we are violating no confidence in stating our certainty that readers will not have to wait so long for the third as they have for this. It is already in the press, and rapidly approaching completion. Indeed, Messrs. Macmillan at one time hesitated whether they should not by a short delay publish both together.

The London Student. No. 1. Published monthly. London: John Churchill and Sons. Pp. 64.

This magazine is intended, as the prospectus informed us, as a medium of communication between the students of the various London Schools and Colleges, but its appearance assures us that its aims are much more catholic than we had been led to believe. Although called the *Student*, it is not the product of half-formed minds, but the utterance of men who have thought much on, and done much for, the all-important subject of education. What, indeed, from the subjects handled in it, and from the mode in which they are treated, the magazine may expect to lose in popularity, it assuredly will gain in value. We have, in fact, before us a high-class educational periodical.

To give, then, some account of its contents, we observe that the first article—"A Plea for more Universities"—is from the pen of Professor Seeley, and, therefore, sure to be good. The writer first proceeds to consider the true nature of a University, and decides that in England such institutions as King's College and University College more nearly approximate to the idea than do Oxford or Cambridge. He holds that a University is really a place for fostering research, and encouraging men of learning, as well as a place for instruction. But to the former end the endowments should not be too large, so that men might be stimulated to exertion, nor should the work of tuition be expected to occupy their whole time to the exclusion of every other object. One of the most important ends to be attained by increasing the number of Universities, or, to use the term best suited to our ordinary ideas, Colleges, is the refining influence they everywhere carry with them. There can be no greater contrast than between two towns of the same size, the one the seat of a University, the other not; the tone of society in the one is infinitely superior to that in the other, and men are estimated not so much by their possessions as by their intellectual culture. The great aim of this paper appears to be the showing of how much may be done to make London the grandest University in the world. The materials are already extant in the metropolitan schools, colleges, academies, and societies, and in the wonderful treasures of the British Museum. The thing wanted is union, that men may come to know each other, and that some of the social elements which constitute the great charm of Oxford and Cambridge life may be introduced. To bring about this union, to gradually embrace the whole of those now engaged in teaching or being taught, and to convert them from a *rudis indigestaque moles* into a strongly cemented and thoroughly compacted body, is the high end and aim of the *London Student*.

That this may be all the more shown—that all may recognise how catholic are the aims of the magazine—the succeeding article, by John Burnell Payne, is devoted to a consideration

of pre-Raphaelite poetry and painting. This article is occupied with a discussion of the magazine which was published under the title of the *Germ*, and for the most part filled with the writings of the "P. R. B.," or authors of like tendencies. The Rev. Philip Magnus contributes a capital sketch of the University of Berlin, and points out the great contrasts presented by the German and English systems of education. Next comes a thoughtful paper on compulsory school attendance, by Professor Jack, of Owen's College, Manchester, in which he unearths certain fallacies ordinarily accepted as truths, and insists on the importance of new laws on the subject being introduced. We think he proves two points satisfactorily: that a compulsory attendance at school is not only practicable, but that it is of the utmost importance for the welfare of this country that it should be introduced. Professor Williamson, of University College, follows with an article on "Experimental Science the Basis of General Education." Although all may not agree with him, they will doubtless be glad to see a continuation of the subject, as here promised. Professor Williamson has attained such a reputation as an exponent of these sciences, that we can readily understand an ardent advocacy of them on his part, as well as his high opinion of their merits as an educational engine.

A letter from Cambridge concludes a number which justifies our highest encomiums. We heartily wish the adventure success and prosperity.

GENERAL CORRESPONDENCE.

ON THE ACTION OF ATROPINE.

LETTER FROM DR. JOHN HARLEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Sadler's observations "On the Remarkable Susceptibility to the Action of Atropine" are interesting, as showing the influence of belladonna upon the capillary circulation. In small doses, a powerful stimulant action upon the heart and blood-vessels is the only appreciable effect of the drug upon young children and the lower animals.

I have noticed the deep red suffusion of the skin, to which Dr. Sadler directs attention, in the case of an infant a few weeks old, after the subcutaneous use of the $\frac{1}{10}$th of a grain of sulphate of atropia. It is due to the sudden repletion of the capillaries of the skin by the stimulant action of the drug upon the heart, and it is a phenomenon particularly observable in infants, on account of the delicacy of their skin.

I have little doubt that the appearance noted by Dr. Sadler has often been described as a "scarlatina-like" rash which is said to attend the use of belladonna.

I may observe that, beyond the above-mentioned suffusion, I have never noticed any approach to such a rash in any of the patients whom I have treated with belladonna.

I am, &c. JOHN HARLEY.

78, Upper Berkeley-street, W., April 13.

POOR-LAW MEDICAL REFORM.

LETTER FROM DR. J. ROGERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I should feel obliged if you will insert the enclosed communications in your journal for this week.

I am, &c. JOS. ROGERS.

To the London and Provincial Poor-law Medical Officers.

Gentlemen,—It is decided to call a public meeting of London and provincial Poor-law Medical officers towards the end of May or early in June, the day and hour hereafter to be determined, though, for the convenience of country Medical officers, midday will probably be selected.

The time is specially opportune. We are about to see the dissolution of the existing, and the election of another, Parliament on a more liberal basis. The question of the better treatment of the sick poor both in London and the country has taken deep hold of the public mind, and it is desirable that Poor-law Medical officers should assemble and express their opinion as to the best mode in which this question should be dealt with. This is the more requisite, as past experience conclusively shows that there is no probability whatever of any change beneficial alike to the interests of the Poor-law Medical service and the sick poor being ever conceded (*the negation of justice being solely dependent on your supposed want of unanimity*). It is therefore incumbent on all Poor-law Medical officers to exert their influence in the forthcoming elections so as to secure pledges from candidates that, if returned, they will vote for such amendment of the law which, whilst securing more equitable consideration of their claims as Medical officers, will enable them more thoroughly to perform their duty to the sick and suffering poor.

If you have any suggestions, etc., to offer, please address them, gentlemen, to Yours obediently,

33, Dean-street, Soho, April 13. JOS. ROGERS.

12, Royal-terrace, Weymouth.

Dear Sir,—I have learnt through a friend that you have it in contemplation to convene, at an early period, a public meeting of London and provincial Poor-law Medical officers, with a view of pressing on the Legislature the absolute necessity, in the interest of the sick poor and their Medical attendants, of some very considerable modifications of existing arrangements. I am also told that you require money for the necessary expenses. I therefore enclose you a cheque for £20 from the fund belonging to the Poor-law Medical Reform Association. The movement has my hearty sympathy, and I regret that, although very much better, I am still unable to take any active part in Poor-law matters.

Trusting you will have a successful meeting, I am, dear Sir,

Yours very sincerely,

Joseph Rogers, Esq., M.D. RICHARD GRIFFIN.

HILL SANATORIA IN INDIA.

LETTER FROM DEPUTY INSPECTOR-GENERAL GORDON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Lancet* of March 14, 1868, appears an able summary of the recommendations made by the Royal Commission on the subject of mountain climates in India as suitable for British troops. This is a subject to which I have paid considerable attention, regarding which, as a member of the late Sanitary Commission for Bengal, I had an opportunity of perusing much, if not all, of the official correspondence bearing thereon, and, while in charge of the Army Medical Office, Calcutta, during five years and upwards, of examining the reports and statistics that had been received there from individual stations of this nature, from 1828, when the first one was established at Landour, until my departure from India at the end of last year. I therefore would desire, with your permission, to offer a few remarks on some of the statements made in that summary, the subject being one which is yet by no means exhausted. At paragraph 11 of that summary, we read that "it is now becoming understood throughout our West Indian possessions, and even in our African settlements, that the higher grounds are deserving the regard of our rulers." This is quite true, but goes scarcely far enough. To Dr. Robert Jackson, whose first work was published in 1791, is really due the credit of having been the first army Medical officer to urge this measure, in which he was, three years afterwards, ably seconded by Dr. Rollo, who, in 1794, in a work which he then published "On the Means of preserving Health in the West Indies," enumerates among the causes of the frequent relapses to which men suffering from fever and dysentery were liable, the circumstance that means did not exist to transport them to healthy localities during convalescence. Since that time, numerous army Medical officers have continued to urge upon the authorities the propriety of quartering our troops there in elevated localities, and to such recommendations the soldier is indebted for such places as Newcastle and Up Park Camp in Jamaica.

Paragraph 23 runs thus:—"We have the mortality returns for hill stations for a few years only, and they throw but imperfect light on their influence on health, the fact being that here, as in the selection and management of hill stations, all was mismanagement and neglect. Regiments exhausted by the diseases of the plains, and invalids suffering from chronic diseases contracted there, were crowded upon mountain tops; unsuitable cases were sent to unsuitable stations, and persons wondered at the evil results."

A great deal is contained in this paragraph which seems to demand explanation. Let us therefore take some of the more important points *seriatim*.

As already mentioned, we have mortality returns from hill stations, not only for a few years, but, with the exception of

one year, continuously since 1828; but unfortunately the Royal Commission did not take advantage of them, probably because that body was unaware of where they are to be found. Permit me now to mention that the series is to be found carefully arranged and bound up with the general statistics of the army in India in the Inspector-General's office, Calcutta, and that a careful perusal of those documents would reveal the fact that much of the so-called discoveries in sanitation of the present day is, in reality, but a re-serving up of recommendations urged by army Medical officers years and years ago. With regard to statistics, then, they are to be found as just stated; those of regiments distinct from those of invalid depôts, and perfectly calculated to throw light upon the question of suitability of those stations for particular classes of persons.

That the sanitary arrangements at some at least, if not all, the hill stations deserve the expression made use of towards them in the paragraph quoted, is not to be denied; but while the fact is mentioned credit should at the same time be given to the army Medical officers who protested against such a state of matters. Dr. R. Taylor, C.B., when Surgeon to the 29th Regiment, adverting to the occurrence of scurvy and other diseases among the men of that corps, sent to Kussowlie after the first Sikh war, enumerated among their causes the scarcity of supplies of all kinds, especially fruits and vegetables, the miserable quality of the bread and meat, and the defective nature of the barracks themselves. Other Medical officers had from time to time pressed upon the authorities the desirability of improving these various conditions at this and other hill stations long before they became subject for consideration by a Royal commission.

Unfortunately for the soldier, the system crept into use of sending to hill stations regiments exhausted by the diseases of the plains and invalids suffering from chronic disease contracted there. For neither of these measures, however, were the Medical officers of the army responsible; on the contrary, they had always protested against such a system. In 1828, Mr. Cathcart reported that of the men sent to Landour the cases of some were unsuited to the climate, and that others were affected with disease of old standing. In 1832, Dr. Burke wrote, concerning the climate of the hill stations, that it was to be regarded "for the prevention of relapses and the total breaking up of already debilitated constitutions rather than for the cure of acute or chronic diseases."

The liability of men who in the plains had suffered from dysentery or hepatitis to recurrences of these diseases was dwelt upon by the Surgeon of the 61st Regiment when that corps was sent in 1852-53 from Peshawur to Kussowlie and Sobathoo. In 1854 the Surgeon of the 32nd Foot expressed a doubt as to the salubrity of Kussowlie, more especially for troops whose health had suffered much from fever and ague, as all those who came from Peshawur had done. The Surgeon of the 53rd, writing in 1855, reports that the sudden change of a regiment from Peshawur does not appear a judicious arrangement. Colonel Greathead, in his evidence before the Royal Commission, described the men of the 32nd, when that regiment was sent to Kussowlie from Peshawur, as dying "like rotten sheep of fever and dysentery;" and Colonel Herbert made use, in a letter to me, of an identical expression with reference to the 53rd Regiment.(a) The limits within which I must confine my remarks prevent me from here submitting extracts from other reports; suffice it to state that so convinced was Dr. Dawson—one of the most scientific of our Inspectors-General in India—of the impropriety of sending sickly regiments direct to hill stations, that the system was after 1854 abandoned, only to be resumed of very late years. I may also observe that Sir Ranald Martin, in his evidence before the Royal Commission, expresses his opinion that a great mistake has been committed—namely, the removal of troops whose health has been damaged in the plains to the cold damp mountain ranges, which, he adds, "are only applicable to healthy men, and for the preservation of health."

Paragraph 27: "If the health of the large army of British troops now" in India "is to be maintained and the efficiency of the force preserved, a large proportion of it must be located in the hills." Undoubtedly this is the case. No person, either military or Medical, has ever denied that such is the case. The only question that has arisen is as to the composition of the force to be thus located. Paragraph 28 states on this point that "as to the composition of the force to be thus located in the hills, my opinion is most decidedly in favour of entire regiments."

In the extracts already given, we have seen sufficient evidence against sending to hill stations regiments that have suffered severely in the plains. Much further evidence could be adduced on this point did space permit, but suffice it if I observe that, with a very few exceptions, no officer of Indian experience, now-a-days, advocates the removal to the hills of entire regiments, except under the contingency of a corps newly arrived in that country, and consisting of very young lads, who, as in the very recent case of the 58th Regiment, might, by such a move, attain maturity and manhood in such a climate instead of early falling victims to endemic disease in the plains.

It is a fortunate circumstance for the soldier in India that the Government of India as yet refrains from acting on the recommendation contained in the last quoted paragraph, in supersession of the more physiologically correct views of the late Sanitary Commission for Bengal, that a careful selection should be made of the men to be sent to the hills. Let newly arrived recruits, whether as "drafts" or as a regiment, be sent to our elevated stations; but let us be careful how we send thither *en masse* bodies of men consisting alike of men whose health has remained perfectly good in the plains, or of those affected with diseases for which hill climates have proved themselves to be incompatible, to the exclusion, be it remembered, of men whose cases might really derive benefit from the change; for, it is almost needless to observe, accommodation at those stations is, for many years to come, likely to be but limited in its extent.

I could say much more on the article in the *Lancet*, which I believe contains several fallacies in regard to the subject of which it treats, and may perhaps recur to it on another occasion. I am, &c. C. A. Gordon,

Portsmouth, March, 1868. Deputy Inspector-General.

(a) I would remark that in my work on "Army Hygiene," chap. xxiii., I have entered fully into the question of hill stations in India for British troops.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 7, 1868.

J. Simon, Esq., F.R.S., President, in the Chair.

Reports on Messrs. Moore and Heath's specimens were read by Mr. Hulke, on Mr. Nunn's case by Dr. Bristowe, and on Mr. Bruce's by Dr. Murchison.

Dr. Sanderson exhibited a series of microscopical specimens illustrative of the

DISEASE WHICH IS PRODUCED IN GUINEA PIGS BY CERTAIN MODES OF SUBCUTANEOUS IRRITATION, AND PARTICULARLY BY THE INSERTION OF TUBERCULOUS MATTER IN EXTREMELY SMALL QUANTITIES UNDER THE SKIN.

In co-operation with the President he had made very numerous experiments on the subject. As regards the subcutaneous inoculation of tuberculous matter, the results of previous experiments had been in the main confirmed, and it had been found that the anatomical changes so produced were remarkably constant in their character and development. As regards other modes of subcutaneous irritation, whether consisting in the insertion of morbid products under the skin other than tubercle, or in irritating the subcutaneous areolar tissue mechanically, it had been found that, provided the local irritation was of sufficient duration, and yet not of such intensity as to produce speedy death, morbid changes occurred in the internal organs which were of the same nature as those which result from the inoculation of tubercle. The appearances may be best described in the order of their development. The subcutaneous lesions consist in induration and suppuration of the subcutaneous connective tissue at the point of insertion, and in the formation of secondary abscesses or indurated nodules, often in great numbers, in the neighbourhood, these being often connected with the primary one by cords of induration. The indurated parts consist of transparent fibrillated stroma, studded with staff shaped nuclei. In microscopical sections of the walls of these abscesses all forms of nuclei could be observed, those nearest the cavity being round, those found in the surrounding induration being staff-shaped, while those between were spindle-shaped. In the indurated parts nests of round nuclei occurred; they often surrounded minute

arteries. The morbid appearances in lymphatic glands consist in enlargement, induration, and caseous degeneration. These changes are in most cases limited to those glands which receive tributaries from the seat of insertion or irritation. The caseation may result either in softening or in the formation of cretaceous concretions. In some cases the same processes are observed in other subcutaneous lymph-glands. In the lungs disease is to be found in about 9 per cent. of infected animals. The characteristic lesion consists in the formation of nodules of grey induration. The nodules occur both under the pleura and in the depth of the organ. They have the semi-transparent appearance of miliary tubercles. Frequently the largest do not exceed a pin's head in size. Their colour varies from pale grey to iron grey. In the larger ones the grey semi-transparency is confined to the outer part, the centre being yellow and opaque. In microscopical sections of minute nodules, it is seen that each consists of a kernel, outside of which is a more transparent rind. The kernel, which may be enucleated with the point of a needle under the microscope, is more opaque and usually denser than the rest. The cortex consists of lung tissue, in which, in the first place, new growth has taken place in the walls of the alveoli, so as to convert them from transparent structureless membranous partitions into cellular or vesicular septa; while, secondly, epithelial cells dotted with pigment granules have accumulated in the alveolar cavities. The kernel contains in general no epithelial elements. It is a mass of spherical nuclei, remarkably uniform in size, which occupy the loculi of a transparent non-fibrillated stroma—*i.e.*, a solid transparent substance modelled into holes, in which the nuclei lie. This structure has a remarkable resemblance to that of the pulp of the lymphatic glands. In the liver the changes observed are of remarkable interest, and have not been hitherto described. The organ is enlarged to twice or three times its weight, and becomes deformed like a cirrhotic liver. The enlargement and deformation are alike due to the development of adenoid tissue around the branches of the portal vein and their accompanying bile ducts, consisting entirely of adenoid tissue—*i.e.*, of a tissue in which nuclei occupy the holes of a transparent loculous stroma. In the spleen the most important morbid alteration is enlargement. The organ is sometimes nearly thirty times its natural weight. This enlargement is often not accompanied with any apparent disease. But in most instances the organ is scattered, both superficially and deeply, with nodules of semi-transparent material, which, to the naked eye, most strikingly resemble miliary granulations. On microscopic examination these exhibit no characters by which they could be distinguished from the Malpighian corpuscles of the spleen on the one hand, or from the new growths already described in the liver on the other. In the peritoneum, the appearances are such as to throw great light on the whole process. They may be studied in the mesentery. When the diseased membrane is examined with a lens, its surface is seen to be scattered with grains of very various size, some microscopic, others distinguishable to the naked eye. These consist in little masses of spherical nuclei. They are always situated in the neighbourhood of arteries. In their relation to the smallest arteries, the appearances recall those so familiar to every one in the arteries of the pia mater when affected with tubercle. The outer wall of the artery bulges out so as to form a spindle-shaped swelling consisting of nuclei, which, although they lie outside of the muscular coat, appear to form part of the arterial wall. But to the larger arteries their relation is different. Here the little granule is separate from the artery, and lies not merely outside of its muscular coat, but outside of its adventitia. The corpuscles of which these granulations consist are, beyond the possibility of a doubt, homologous with connective-tissue corpuscles of the part in which they are developed. From the transparency of the tissues, and the readiness with which they can be examined, even with high powers, with scarcely any dissection, they afford a splendid opportunity for studying the process by which tubercular granulations originate — viz., the proliferation of nuclear corpuscles. Dr. Sanderson proceeded to state the grounds on which he had asserted that the remarkable anatomical results he had described could be produced in rodent animals not merely by the inoculation of tubercle, but by any irritation of the requisite degree of intensity applied to the subcutaneous tissue. He had arrived at this conviction gradually. It had been first found that the morbid process of which the lesions in the internal organs are the expression can be set up not merely by tubercle in the strict sense, but by any of the inflammatory products which are associated with it. Then, from numerous experiments with pyæmic pus, it had appeared that although most of the animals died of the immediate effects, those that survived became ultimately tuberculous. Lastly, it had been ascertained that if subcutaneous suppuration were produced by purely mechanical means—as, *e.g.*, by the introduction of setons—the same result followed. In an animal killed four months after the insertion of setons, the condition of the internal organs had been found to be altogether indistinguishable from that due to inoculation. From the facts related it is evident that experiments afford no ground for believing in the existence of a tuberculous virus. They seem, however, to throw an important light on the genesis of the tuberculous process. If we are entitled to assume that the process set up in these animals is in reality tuberculous, they certainly seem to afford support to the doctrine which has for some years been taught by Niemeyer and some other pathologists in Germany, according to which the miliary process—the formation of grey granulations—takes it start from the caseous degeneration of some previously existing pathological product; for if he rightly interpreted the facts, the enlargement and caseation of the lymphatic glands nearest to the irritated part constitute a necessary link in the chain of pathological events by which the primary results of local subcutaneous irritation are connected with the tuberculisation (if we may call it so) of the internal organs.

Dr. Charlton Bastian asked whether this was true tuberculosis. In man the three great cavities were affected; in the instances narrated by Dr. Sanderson, there was no word whatever of tubercular meningitis. The new product, as seen in the lungs, was also somewhat different in appearance from true tubercle. So also was the structure of the liver described, and the mode in which the new product was arranged. He objected to the term adenoid as likely to lead to confusion, he believing that the tissue was only a nuclear condition of ordinary fibroid formation.

Dr. Murchison said a case had recently been under his care in which the liver appeared exactly as described by Dr. Sanderson. It was enlarged, but not congested, and extremely hard. Death resulted from acute tuberculosis. Similar appearances had been recorded by Frerichs.

Dr. Crisp showed some specimens of tuberculous disease in lower animals, and the results of inoculating a guinea-pig with pus. He said that tubercle gave rise to essentially different symptoms in the lower animals from those of man. In monkeys there was never hæmorrhage, in birds there was no soft tubercle. There were specimens of false tubercle produced by the ova of a strongylus, which were frequently mistaken for true tubercular deposits.

The President remarked that long ago he had pointed out the existence of false tubercle in the liver, even in the follicles of the intestine, but had seen no strongylus. He insisted on the great importance of Dr. Sanderson's experiments with setons, although it was now said that similar results had been long ago obtained by Sir J. K. Shuttleworth. The word tubercle was extremely vague; so also were many of our expressions. Even the term small-pox was not free from reproach.

Dr. Hilton Fagge exhibited two patients affected with

VITILIGOIDEA AND CHRONIC JAUNDICE.

One of them was recently a patient under Dr. Habershon at Guy's Hospital; the other had been under Dr. Pavy's care, and is now an out-patient under Dr. Fagge. After remarking on the peculiar characters of the affection, Dr. Fagge observed that it is not confined to the skin. He showed that the mucous membrane of the mouth undergoes a similar change, and that (as has long been known) some of the tubera on the knuckles are developed in the extensor tendons, and not in the skin. The connexion with jaundice is more intimate than has hitherto been supposed. This connexion existed in three of the cases recorded in the original paper of Dr. Addison and Dr. Gull, and also in three cases which have since been under observation at Guy's. The remaining two of Dr. Addison's and Dr. Gull's cases—in both of which jaundice was absent—Dr. Fagge considered not to be examples of the same affection. The jaundice itself is peculiar. It lasts for several years, often without the skin undergoing the usual change from a yellow to an olive-green colour. The bile-ducts are not obstructed, the motions being not necessarily paler than in health. Dr. Stevenson has made an analysis of the urine from which it appears that biliary colouring matter is present, but neither bile-acids nor any unusual ingredient, such as leucin

or tyrosin. The liver is enormously enlarged in this disease, but it is impossible to say what is the nature of the change in the organ, as no post-mortem examination has hitherto been made.

Mr. Marsh showed a

TUMOUR REMOVED FROM THE TENDON OF THE RECTUS FEMORIS, JUST ABOVE THE PATELLA,

by Mr. Paget. Its surface was nodulated, and as there was no movement between it and the patella both were removed. In a few weeks the wound nearly healed, when the patient went to the country, but soon returned much worse, and the limb had to be amputated. A medullary mass was found projecting from the bone, and on examination the tumour, which had previously excited little attention, was found to be of the same character. It was rare to find such tumours springing from tendons, and rare to find them going on for seven years, as this had done.

Mr. Spencer Watson showed a specimen of

ATHEROMATOUS ULCERATION OF THE AORTA,

with complete occlusion of the left subclavian. It was removed from a man aged 56, who had suffered from oppression at the præcordium and difficulty of moving about. Pain extended down his left arm. The left coronary was also closed.

Dr. Farquharson exhibited for Dr. Spry, of the 2nd Life Guards, a specimen of

PERFORATION OF THE ARCH OF THE AORTA FROM THE ŒSOPHAGUS,

produced by swallowing a piece of bone. At first the trooper complained of nothing except a sensation of having swallowed a piece of gristle, which was not removed by an emetic. The man died suddenly in a few days after vomiting a large quantity of blood.

THE CLINICAL SOCIETY.

Friday, March 27.

Dr. C. J. B. Williams, Vice-President, in the Chair.

The following gentlemen were elected Members of the Society:—Dr. Burton, Dr. W. Ogle, Dr. Warwick.

Mr. C. Heath read the report on Mr. Holthouse's example of rheumatic arthritis, from which it appeared that the Committee was divided in opinion as to the exact nature of the case.

A case was related by Dr. Marcet in which

DUMBNESS ASSOCIATED WITH DYSPHAGIA AND OCCASIONAL SPASMODIC CONTRACTIONS OF THE MUSCLES OF THE FAUCES,

of fifteen months' duration, had apparently disappeared after the application of the interrupted induced current to the larynx.

A report on the same case was then read by Dr. Buchanan on behalf of the Committee to whom it was referred at the previous meeting. After careful investigation the Committee found reason to believe that the patient had been speechless for many months, but were unable to satisfy themselves that he was incapable of speech.

Dr. Morell Mackenzie regarded the case as one of those in which the power of bringing certain groups of muscles into combined action is lost, not in consequence of any disease either of the muscular apparatus itself or of the nervous centres presiding over it, but as a result of disordered volition. In illustration he referred to the case of a sailor, otherwise in good health, who, in consequence of a blow on the head received when at sea, suddenly lost his voice. Dr. Mackenzie ordered him to take an inert medicine three times a day, assuring him that he would be cured; after a few days he recovered his speech. Here, as in Dr. Marcet's case, and in other instances which had come under his notice, the good effect of the remedy employed had no relation to its therapeutical properties.

The President regarded the case in the same light as Dr. Mackenzie. He had under his observation a woman, by no means of a fanciful or hysterical tendency, in whom loss of vocalisation and articulation, lasting for several days, could be produced at any moment by an unexpected slap on the back. It was soon found that the voice could be restored by electrical shock from a Leyden jar, and subsequently by a less violent stimulus with equal success.

Dr. Barclay referred to the case of an epileptic child of defective intelligence, now in his wards in St. George's Hospital, who, being unexpectedly tapped on the spine or touched on the shoulder, became suddenly convulsed, and, if standing, fell at once to the ground. The effect was very transitory, and was neither accompanied nor followed by unconsciousness.

Mr. Holthouse, in relating a case of

CHRONIC RHEUMATIC ARTHRITIS,

remarked that he felt some difficulty in giving a name to the disease described, and though he had ventured to call it chronic rheumatic arthritis, he did so with hesitation, because it differed in many respects (which he pointed out) from that disease, and partook of many of the characters of a nervous disorder. The chief feature of interest in the case consisted in the gradual and increasing lameness of the patient from a slow drawing up of the right thigh towards the trunk, attended with an absolute shortening of the femur to the extent of an inch, and great fixation of the hip-joint without muscular rigidity. The above changes had been going on for the last nine years, unaccompanied with the slightest constitutional disturbance, or any pain, tenderness, or suppuration about the hip; only in its first accession the patient was subject to what he calls cramps in the limbs, which recurred every two or three weeks, lasted for a few minutes, and then went off. Mr. Holthouse suggested that there might be coexisting in his patient a joint and nerve disease, giving rise to a combination of symptoms which, so far as he knew, had not been hitherto described.

Dr. Greenhow related a case of locomotor ataxy, or, as he preferred to call it, of motor asynergy. The case was referred to a Committee consisting of Dr. Charlton Bastian and Dr. Buzzard.

Dr. Hillier narrated a case of infantile ascites, associated with distension of the venous system. After some conversation, in which Dr. Barclay, Dr. Stewart, and Dr. Wiltshire took part, the case was referred to Dr. Marcet for a chemical examination of the liquid which had been withdrawn from the peritoneal cavity.

Dr. Anstie related a case in which, although most of the physical signs were of such a character as to indicate dilatation of the ascending aorta, there were other facts (particularly the extreme feebleness of the carotid and radial pulses) which rendered the diagnosis difficult and doubtful. The case was referred to a Committee consisting of Dr. C. J. B. Williams and Dr. Sanderson.

Mr. Henry Lee read the history of a male, aged 35, who died from

TETANUS AFTER AMPUTATION AT THE THIGH.

The femoral artery had been controlled by acupressure for three days. Its canal was found to be filled with a firm, closely adhering clot. The lining membrane was red near its cut extremity where it was subject to pressure, but it presented no sign of any effusion of lymph upon its surface. This showed, he thought, the error of supposing that two sides of an artery will unite if held in contact; such union will only take place at the cut extremity, the clot arresting bleeding until the permanent repair is completed. In the present case the whole surface of the stump was sloughing, and yet hæmorrhage from the femoral artery was completely commanded after the removal of the needle by the clot which had formed in its interior, and by the amount of repair at its cut extremity. Mr. Lee had, on the whole, been satisfied by the results of treatment by acupressure, though he had never been able to procure complete union, such as is said so often to occur in Aberdeen.

THE CONTAGIOUS DISEASES ACT.

A most important meeting was held in the Town-hall, Gravesend, on the 8th inst., under the presidency of the Right Hon. the Earl of Darnley, in order to establish a branch of the Association for the Extension of the Contagious Diseases Act, 1866, to the Civil Population, of which Dr. Gramshaw, of Gravesend, is the local hon. sec., and to whose energy and tact the success of the meeting was greatly due. In opening the proceedings, Lord Darnley, in a speech of singular ability and force, expressed his warm approval of what had already been done to oppose the progress of those dreadful scourges which we had agreed euphuistically to term contagious diseases, that the physical benefits which had already resulted in our camps and large garrison towns were the strongest evidence in favour of a practical solution of the difficulty which heretofore had always stood in the way

of stamping out, or at least of mitigating, these terrific diseases. In most vigorous and eloquent language, his Lordship successfully combatted the opinions which had been given as to the moral objections against the establishment of the present Act, and which he considered were as futile and groundless against its extension; for what was found to be of advantage and benefit to the soldier should certainly not be denied to his fellow-citizen, the civilian. He congratulated the meeting on the presence of gentlemen who had given the subject much study and attention; they would be addressed by Mr. Berkeley Hill, the Secretary of the Association, whose knowledge of the subject, and indefatigable exertions on behalf of the Association, constituted him its chief authority, and by Dr. Cockburn, Royal Engineers, who had had great experience of the practical working of the Act in one of our largest garrison towns.

The Rev. Mr. Bailey, Chaplain of St. Bartholomew's, and Hon. Secretary of the Chatham Branch of the Association, in a most forcible and earnest manner enlarged on the moral benefits which had already been derived from the Act at Chatham, and which his practical experience as an officer of one of the largest certified Hospitals enabled him to lay before the meeting. He would, as a clergyman, confine his remarks strictly to the moral side of the question. He could state that, during the short time the Act had been in force at Chatham, nearly forty women had been reclaimed, and were now leading lives of honesty and industry. It was remarkable and, at the same time, most gratifying to notice how many of the women, after having been some time in contact with the chaplain, matron, and officers of the Hospital, and subjected to the necessary discipline and order of a large establishment, became, if he might use the expression, more humanised. This civilising influence, he could not but think, would, on their discharge from Hospital, bear its own fruit. He desired that it should be thoroughly understood that, in his character of a clergyman, he could not have appeared before them this evening if he thought for one moment that it was the intention or desire of the Association to promote or establish anything like the licensing system we saw in operation abroad, or even the bestowal of a certificate of health on the woman herself. He was firmly convinced the Association had no such intention whatever. He sincerely hoped that the day was not far distant when Gravesend and Chatham, united as they were already, would still further be working harmoniously and effectively together in carrying out the regulations of this Act in its extended form, to their mutual benefit and advantage.

Dr. Cockburn, R.E., felt that, after the eloquent and exhaustive speech on the moral side of the question with which they had been favoured, it would be best to confine the few remarks he had to make to the Medical view of the subject; he wished, however, to mention, in corroboration of the humanising effect to which the Rev. Mr. Bailey had alluded, that its results were already apparent, for that whereas formerly in the immediate neighbourhood of the barracks at Chatham there were at night scenes of the most rampant vice and debauchery, this had now, to a great extent, disappeared. The immediate benefit that the garrison of Chatham had derived from the enforcement of the Act was most remarkable, and although latterly the decrease in the amount of men diseased had not been so marked, this must not be attributed to any failure in the Act, but simply to the fact that women came from all parts of the country to be cured at Chatham, and as the accommodation there was limited, Chatham naturally became a centre of disease, to the extra danger not only of the garrison, but of the civil population. This fact, however, proved how willing the women themselves were to take advantage of the benefit of the Act. He instanced Sheerness as a town in which, from its size and geographical position, the Act was enabled to be carried out most effectually, and with the happiest results. One of the great objections to the present limited area of the Act was the necessarily limited accommodation at Chatham. It was found necessary to send many women to London on discharge from Hospital there. They were supplied with a small sum of money to find their way back. Unfortunately, this was a bad system, for in many cases these women had contracted fresh disease on their way down, and had imported a worse type than that for which they had originally been sent to London. It was very satisfactory, however, to be able to point out how greatly the virulence of the disease had been modified in Chatham; almost all the very severe cases which came under his notice could be traced to imported origin. So clear and undoubted were the benefits derived by the military from this Act even in its present form, that he could not refrain from urging, in the most earnest manner, the general extension of the Act.

Mr. Berkeley Hill now rose, and explained the whole machinery of the Act, not only in its present, but as it was desired to be in its extended form. He entered very largely into his experience of the excellent results which had already been obtained at Plymouth, Aldershot, Portsmouth, and other towns that he had visited. He most strongly corroborated what Mr. Bailey had advanced, repudiating, on the part of the Association, all intention or desire of introducing anything like the licensing or Continental system. He explained the plans that were either in actual operation or in agitation to improve the moral condition of the women themselves, and he hinted at the strong probability of street solicitation being effectually and satisfactorily dealt with. As Surgeon of the Lock Hospital in London, he was in a position to give numerous instances to the meeting of the dreadful sufferings inflicted on respectable married women and innocent children by this disease, and he gave a most melancholy example of nearly the whole of a large family having been swept off by the ravages of syphilis. He detailed at length what remarkable results had been obtained at Malta and others of our foreign stations by the enforcement of this Act, and how, in fact, it was possible almost to stamp out the disease. The whole of this gentleman's speech was replete with facts of a most valuable and interesting character, and he resumed his seat amidst loud applause.

The Mayor of Gravesend expressed his great satisfaction at having been present at so interesting and instructive a meeting. He felt, however, that, as chief magistrate, he had a duty to perform to those whose interests were confided to his guardianship, and in this capacity he could not have taken any active part in voting for the extension of the Act to Gravesend till he had ascertained the ways and means by which this Act could be carried out in this town. He had now carefully perused the Act of Parliament, and that, combined with the lucid explanation which had been given by Mr. Berkeley Hill, had removed all hesitation on his part. Gravesend was a very rising town, it had already a moderate garrison, and it promised soon to take a more prominent position in a military point of view; and although the extension of this Act would probably make some slight call on the municipal funds, he considered that this would be so trifling, compared with the advantages that would be reaped, that he urged his fellow-townsmen to unite with him in giving their most cordial support to the movement.

After speeches from the Rev. Charles Robinson, Hon. Canon, and Dr. Armstrong, of Gravesend, the meeting separated.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 8th inst., and, when eligible, will be admitted to the pass examination:—

Abbott, George, Guy's Hospital
Barnard, J. E. B., Guy's Hospital.
Barker, W. J., St. Mary's Hospital
Cater, A. H., University College Hospital
Cocker, Andrew, University College Hospital.
Compton, Francis, Guy's Hospital
Cox, William, St. Mary's Hospital.
Cumberbatch, A. E., St Bartholomew's Hospital.
Fleury, Ralph, Middlesex Hospital
Grant, Frederick, St Bartholomew's Hospital
Gray, E. J., University College Hospital.
Grover, J. P., Guy's Hospital.
Hingston, Richard, St Mary's Hospital
Jeffreys, John, Guy's Hospital
Jones, T. D., University College Hospital
Kibbler, W. A., London Hospital.
Lattey, Arthur, St Mary's Hospital
Lucas, St. J. W., Durham
Mackenzie, Stephen, London Hospital.
Mahon, John, Guy's Hospital
Matthews, Joseph, Liverpool
Nettle, William, St Bartholomew's Hospital
Parkinson, C. H. W., Guy's Hospital.
Robertson, A. C., Guy's Hospital
Smith, H. A., St Bartholomew's Hospital
Stokes, F. B., St Bartholomew's Hospital
Symons, H. E., St Bartholomew's Hospital
Vines, H. J. K., St Mary's Hospital.
Walker, Walter, Guy's Hospital

The following gentlemen passed on the 9th inst., viz. :—

Allen, Thomas, King's College Hospital.
Andrews, Arthur, St. Bartholomew's Hospital.
Baumgartner, J. R., King's College Hospital.
Box, W. H., Westminster Hospital.
Burgess, W. F. R., Guy's Hospital.
Byam, S. H., St George's Hospital.
Clay, Charles, King's College Hospital
Cooke, E. H., St. Bartholomew's Hospital.
De Meric, H. E., King's College Hospital.
Ferris, J. E. C., St. George's Hospital.
Gilland, R. B., Glasgow.
Gray, C. F., St. Bartholomew's Hospital.
Haynes, H. E., St. Bartholomew's Hospital.
Herman, G. E., London Hospital
Jukes, Andrew, St Bartholomew's Hospital.
Lambert, W. H., Birmingham.
Lang, J. M., St. George's Hospital.
Leake, G. D. N., St. George's Hospital.
Lyell, R. W., King's College Hospital.
M'Culloch, William, King's College Hospital.
M'Donald, Wallis, St George's Hospital.
Maybury, W. A., St. Thomas's Hospital.
North, John, St. George's Hospital.
Parsons, T. E., St. Mary's Hospital.
Prigg, Frederick, St George's Hospital.
Roche, E. B., King's College Hospital.
Sandiland, A. H., St. Bartholomew's Hospital.
Skrimshire, C. P., St. Bartholomew's Hospital.
Sloman, S. G., St. Bartholomew's Hospital.
Taylor, F. E., King's College Hospital.
Walker, Samuel, Guy's Hospital.
Wilder, H. Beaufoy, Westminster Hospital.
Williams, J. L., Edinburgh.

It is stated that out of the 106 candidates only ten failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their Anatomical and Physiological studies for the period of three months.

The following gentlemen passed on the 14th inst., viz. :—

Barton, E. W., St. Mary's Hospital.
Bodman, F. H., of St. Bartholomew's Hospital.
Cotterill, Alfred, King's College Hospital
Davies, W. H., University College Hospital.
Davis, C. J., St. Bartholomew's Hospital.
Evans, Charles, Manchester.
Franklin, G. C., St Thomas's Hospital.
Gabbett, P. R. D., Quebec, Montreal, and St. Mary's Hospitals.
Gosse, Charles, Charing-cross Hospital.
Griffin, Innes, University College Hospital.
Harris, A. G. R., St. Mary's Hospital.
Hunt, T. H., Manchester.
Kesteven, W. H., St. Bartholomew's Hospital.
Lacey, T. W., Guy's Hospital.
Luff, W. G., Liverpool.
Meadows, Henry, St. Thomas's Hospital.
Nicoll, W. A., Guy's Hospital.
Parmiter, Henry, King's College Hospital.
Peacock, H. G., Guy's Hospital.
Pearce, W. H., Charing-cross Hospital.
Pendlebury, Roger, Liverpool
Perkins, C. E. S., Guy's Hospital.
Pritchard, R. H., Guy's Hospital
Pye Smith, R. J., Guy's Hospital.
Rigden, Walter, University College Hospital.
Saunders, H. W., St. Thomas's Hospital.
Stevens, M. A. De B. C., King's College Hospital.
Townsend, T. S., Guy's Hospital.
Towt, G. F. E., Charing cross Hospital.
Trezise, W. R., King's College Hospital.
Turner, F. H., St. Bartholomew's Hospital.
White, R. W., King's College Hospital.

The following passed on the 15th inst., viz. :—

Archer, T. B., St. Bartholomew's Hospital.
Atkinson, A. J., University College.
Bowles, W. W., St. George's Hospital.
Bradley, R. B., Manchester
Crompton, Harold, Manchester.
Davenhill, R. S., St. Bartholomew's Hospital.
Davies, David, Manchester.
Day, G. C., St Mary's Hospital.
Dixon, T. J., Guy's Hospital.
Fitt, S. W., King's College.
Grant, R. F., Guy's Hospital.
Kennedy, Edward, Manchester.
Law-, F. J., St Mary's Hospital.
Lawton, Joseph, Manchester
Leapingwell, H. A., London Hospital.
Ley, J. W., London Hospital.
Lill, W. F., Guy's Hospital
Lovell, F. O., St. George's Hospital.
Lowe, W. G., St. Bartholomew's Hospital.
Morris, John, Guy's Hospital.
Morrish, R. A., St. Mary's Hospital.
Owen, S. H., Manchester
Palmer, J. F., St. George's Hospital.
Patchell, W. A., Manchester.
Payne, G. S., St. Bartholomew's Hospital.
Rape, H. J., King's College
Skrimshire, F. W., King's College.
Webb, T. L., Birmingham.
Yates, W. P., Guy's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 9, 1868 :—

Akerman, William, Union-terrace, Notting-hill.
Evans, John, High-street, Cardiff.
Harrison, George William, Birkenhead.
Jones, John Thomas, Llanfyllin.
Murphy, Thomas Charles, Ealing
Nash, Frederick James, East India road, Poplar.
Saunders, Thomas Dudley, Sion-house, Bath.
Stocker, James Reginald, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BEATSON, W. B., M.D., F.R.C.S., Civil Surgeon of Dacca, to be Civil Surgeon of Nagpore, in the Central Provinces.

BROWN, GEO. ARTHUR, M.R.C.S.E., Associate of King's College, London, and House-Surgeon of the Sheffield General Infirmary—Chief Surgeon to the Tredegar Ironworks, Monmouthshire, *vice* Coathupe, resigned.

CASE, HENRY, M.R.C.S.—Senior House-Surgeon to the Middlesex Hospital, *vice* Thomas Flower

CHOLEY, M. W. W.—Assistant Resident Medical Officer to the Leeds General Infirmary.

COLES, GEO. CHAS.—Surgeon to the Infirmary for Paralysis and Epilepsy, Charles street, Portman square

DE MORGAN, CAMPBELL, F.R.S.—Consulting Surgeon to the London Fever Hospital.

DRUMMOND, A., M.B., M.C.—Resident Surgeon to the Birmingham General Dispensary

HARRIS, GWYNNE, M.D. Lond., F.C.S.L., etc.—A Consulting Physician to the Pembrokeshire and Haverfordwest Infirmary.

JONES, H. BENCE, M.D.—A Consulting Physician to St. George's Hospital.

NORTON, G. EVERITT.—Junior House-Surgeon to the Middlesex Hospital, *vice* Henry Case.

PHILLIPSON, G. H., M.A., M.D.—One of the Physicians to the Newcastle-upon-Tyne Infirmary, *vice* D. B. White, M.D., deceased.

STOKES, W., M.D.—Surgeon to the Richmond Hospital, Dublin.

TREUTLER, W. J., M.B., C.M. Edin.—Surgeon to the Royal Gardens, Kew, *vice* C. W. Browne, resigned

WILSON, J. A., M.D.—A Consulting Physician to St. George's Hospital.

NAVAL AND MILITARY APPOINTMENTS.

COOPER, ASTLEY.—Surgeon in her Majesty's Fleet.

CREED, JAMES, Staff Assistant-Surgeon.—Assistant-Surgeon 20th Foot.

CUTHBERTSON, R. A., Staff Assistant Surgeon.—Assistant-Surgeon 65th Foot.

FERGUSON, W., Staff Surgeon.—Surgeon 106th Foot

HERBERT, H. C., M.D., Assistant-Surgeon, from the 67th Foot.—Assistant-Surgeon.

HOLLOWAY, J. L., Surgeon, 37th Foot.—Surgeon Major

JOHNSTON, J. S., M.D., Assistant Surgeon, from the 65th Foot.—Assistant-Surgeon 1st Dragoon Guards.

MACKINNON, H. W. A., Assistant-Surgeon, from the 101st Foot.—Assistant-Surgeon Royal Artillery

PURVES, R.—Surgeon in her Majesty's Fleet.

WEST, G. B., Staff Assistant-Surgeon.—Assistant-Surgeon 23rd Foot.

The following gentlemen have been appointed Staff Surgeons :—Surgeon James Crear, from the 101st Foot; Assistant Surgeon J. Watts, from the 1st Dragoon Guards; Assistant-Surgeon A. R. Kilroy, from the Royal Artillery; Assistant-Surgeon B. Stiles, from the 40th Foot.

The following gentlemen have been appointed Staff Assistant-Surgeons :—Assistant-Surgeon F. H. Dunbar, from the 23rd Foot; Assistant-Surgeon W. Hensman, from the 20th Foot.

BIRTHS.

BROSTER.—On April 5, at 64, Wood-street, Woolwich, the wife of E. B. Broster, M.R.C.S.E., R.N., of a daughter

DIVER.—On April 13, at Warlingham, Surrey, the wife of Dr. E. Diver, of a son

HAMILTON.—On April 8, at Curryfree, Londonderry, the wife of Dr. Hamilton, Surgeon H.M.S. *Warrior*, of a son.

HAMMOND.—On April 11, at Ipswich, the wife of C. W. Hammond, M.D., of a son.

MACKENZIE.—On April 12, at Sidmouth, the wife of Dr. J. Mackenzie, of a son.

MILLAR.—On April 5, at 48, Albany-street, Edinburgh, the wife of J. Millar, M.D., of a daughter.

MONRO.—On April 11, at 37, Gloucester-street, Belgrave-road, the wife of J. Monro, M.D., of Craiglockhart, N. B., of a son.

SCOTT.—On April 14, at 78, Morland-place, Southampton, the wife of R. C. Scott, Surgeon H.M.S. *Irresistible*, of a son.

MARRIAGES.

CRASKE—BEADNELL.—On April 14, at St. Ann's, Hanger-lane, C. B. Craske, Surgeon-Major Madras Army, to Maud, second daughter of the late J. Beadnell, barrister-at-law, Lincoln's-inn, of Tottenham, Middlesex, and Castelly Dail, Montgomeryshire. No cards.

ROBERTS—LUPTON.—On April 8, at St. Bartholomew's Church, West Pinchbeck, Lincolnshire, T. A. Roberts, M.R.C.S.E., of the Croft, Lynton, North Devon, to Rose, eldest daughter of J. Lupton, Esq., the Brewery, West Pinchbeck, Lincolnshire. No cards.

DEATHS.

DOHNAGE, G., L.F.P. and S. Glas., Deputy Inspector-General of Hospitals, at Bessborough-street, Pimlico, on April 2.

STEELL, F., M.D., F.R.C.S.E., on April 8, at Foot-hill, Broughty Ferry.

VACANCIES.

KING'S COLLEGE.—Lectureship on Animal Physiology, Evening-class Department, resigned by Dr. Harley.

DUDLEY DISPENSARY.—Resident Medical Officer.

GLOUCESTER GENERAL INFIRMARY.—Assistant-Physician; Assistant-Surgeon.

NORTH STAFFORDSHIRE INFIRMARY.—Resident Medical Pupil.

ST. MARYLEBONE PROVIDENT DISPENSARY.—Medical Officer in Ordinary.

WARRINGTON DISPENSARY.—Resident Surgeon Apothecary.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Northleach Union.—Mr. J. R. Bedwell has resigned the First District; area 12,240; population 2583; salary £35 per annum. Also the Workhouse, salary £25 per annum.

St. Leonard, Shoreditch Parish.—The Holywell District is vacant; area 53; population 17,314; salary £150 per annum.

Thrapston Union.—The E District is vacant; area 6014; population 1159; salary £26 8s. 0d. per annum.

Wolverhampton Union.—The Third District is vacant; area 807; population 16,124; salary £72 4s. 0d. per annum; no fees.

APPOINTMENTS.

Burton-upon-Trent Union.—Paul Belcher, L.R.C.P. Lond., M.R.C.S.E., L.S.A., to the Burton-upon-Trent District and the Workhouse.

Dudley Union.—Samuel G. Gilbert, M.R.C.S.E., L.S.A., to the Third Sedgley District.

Great Ouseburn Union.—John F. Boyes, B.M. Dublin, M.C. Dublin, to the Boroughbridge District.

Hendon Union.—William Blasson, M.R.C.S.E., L.S.A., to the Redhill School.

Market Bosworth Union.—Ebenezer F. Turner, M.B. Lond., L.R.C.P., M.R.C.S.E., to the Market Bosworth First District and the Workhouse. David P. Thomas, M.R.C.S.E., L.S.A., to the Market Bosworth Second District.

Richmond Union.—W. J. Treutler, M.B., C.M. Edin., to the Kew District.

Spilsby Union.—Joseph Johnson, M.R.C.S.E., L.S.A., to the Burgh District.

Totnes Union.—Albert J. Wallis, M.R.C.S.E., L.S.A., to the Stoke Gabriel District.

West Derby Union.—Joseph W. Warburton, M.R.C.S.E., L.S.A., to the South Municipal District.

COLLEGIATE EXAMINATIONS.—The following analysis of the schools of the 106 candidates examined at the College of Surgeons last week in Anatomy and Physiology, will perhaps be interesting to the teachers and pupils. Of the above number ninety-six passed—viz., from Guy's, 21; St. Bartholomew's, 14; King's College, 9; St. George's, 7; St. Thomas's, 6; University College, 6; St. Mary's, 6; London, 5; Charing-cross, 4; Westminster, 4; Birmingham, 4; Middlesex, 3; Leeds, 2; Liverpool, 2; Dublin, 1; Glasgow, 1; and Edinburgh, 1.

COLLEGIATE VACANCIES.—We lately stated the probability of certain resignations in the Council and Court of Examiners of the Royal College of Surgeons. At present we have nothing to report of the former, although it is rumoured that the state of the health of an estimable and late President of the institution may induce him to resign his seat at the Council. Another ex-President who has done good service in the College has signified his wish not to be put in nomination for another quinquennial period. In thus gracefully retiring, Mr. Wormald has set an example which is worthy of more frequent imitation. It is generally expected that Mr. John Adams, of the London Hospital, will succeed Mr. Wormald in the Court of Examiners.

COLLEGIATE PRIZES.—At a meeting of the Council of the Royal College of Surgeons on Monday last, a Jacksonian prize was awarded to Mr. William Johnson Smith, of Lower Henry-street, St. John's-wood, for his essay on the "Various Deformities resulting from Severe Burns on the Surface of the Body, the structural changes occasioned by these injuries, the best modes of preventing deformities, and the treatment, operative or otherwise, adapted to correct them." The other Jacksonian prize was awarded to Mr. Christopher Heath, of Cavendish-place, for his essay on the "Injuries and Diseases of the Jaws, including those of the Antrum, with the treatment by operation or otherwise." Both these gentlemen are Fellows of the College by examination, and received their Professional education at King's College. For the Collegiate Triennial Prize there was no award. The following is proposed as the subject for the next Collegiate Triennial Prize—viz., the Anatomy and Physiology of the Organs of Taste and Smell in the Mammalia, to be illustrated by preparations and drawings. The subject proposed for the Jacksonian Prize for the ensuing year, 1869, is Aneurism by Anastomosis, the various forms of the disease, and the different methods of treatment, with the author's experience and views thereon, to be illustrated by drawings, photographs, preparations, and casts.

THE ROYAL SOCIETY.—At the approaching election for the Fellowship of this Society, the claims of fifty-three candidates will be examined, of whom twenty-one are members of our Profession—viz., Alexander Armstrong, M.D.; Henry Charlton Bastian, M.D.; Frederick Le Gros Clark, F.R.C.S.; George Critchett, F.R.C.S.; Herbert Davies, M.D.; Joseph Barnard Davies, M.D.; P. Martin Duncan, M.D.; Alexander Fleming, M.D.; Edward Headlam Greenhow, M.D.; Edmund Thomas Higgins, M.R.C.S.; William Charles Hood, M.D.; George Johnson, M.D.; David Macloughlin, M.D.; Thomas Nunneley, F.R.C.S.; James Bell Pettigrew, M.D.; Charles Bland Radcliffe, M.D.; John Russell Reynolds, M.D.; Edward Henry Sieveking, M.D.; George Charles Wallich, M.D.; Edward John Waring, M.D.; and Samuel Wilks, M.D.

ROYAL INFIRMARY OF EDINBURGH.—A movement has been set on foot to raise a fund for the rebuilding of the Medical Hospital of the Royal Infirmary of Edinburgh. The estimated cost of the work is about £100,000. Nine subscriptions of £1000 each, and several of £500, have been announced.

ROYAL MICROSCOPICAL SOCIETY.—At the ordinary meeting, held on Wednesday evening last, Mr. James Glaisher, F.R.S., President, in the chair, one new Fellow was elected, and a large number of presents to the Society were announced. A paper was read by Major Ross, R.A., "On Micro-crystals and Iridescent Films, obtained by the use of the blow-pipe;" the subject—which was illustrated by experiment and by specimens exhibited under the microscope—gave rise to an interesting discussion, in which Messrs. Charles Brooke, F.R.S., Jabez Hogg, F.L.S., and H. J. Slack, F.G.S., took part. A paper was also read by Mr. Jabez Hogg, F.L.S., "On the Lingual Membranes of Mollusca," the subject being illustrated by a series of beautifully executed coloured drawings. The thanks of the meeting were presented to the readers of the papers, and the President announced that the annual *soirée* of the Society would be held on the 22nd.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN MARCH, 1868.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition (a)	Oxidisable Organic Matter (b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies.	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction	20·8	1·0	1·22	14·0	4·0	0·007
West Middlesex	21·0	0·8	0·29	14·5	4·0	0·007
Southwark & Vauxhall	2–·5	1·8	1·26	14·0	4·0	0·007
Chelsea	20·5	2·3	1·31	14·0	3·5	0·011
Lambeth	19·5	2·4	1·34	15·0	3·0	0·011
Other Companies.						
Kent	25·7	2·0	0·03	18·0	6·5	0·003
New River	18·5	1·0	0·25	14·0	3·5	0·007
East London	21·5	1·1	0·34	15·0	4·0	0·007

The samples of the Chelsea and the Lambeth waters were turbid when drawn.

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 is to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

NEW BOOKS, WITH SHORT CRITIQUES.

The Popular Science Review. Edited by Henry Lawson, M.D. Quarterly. Price 2s. 6d. Pp. 125. Coloured plates. London: Hardwicke.

*** The account of gems and precious stones of Great Britain will be new to many of our readers, and interesting to all. Besides, there are papers on spectroscopy, by John Hogg, F.R.S.; on the dissection of flowers, by M. C. Cooke; on the polaria cope, by Mr. Hockin; and a very good one, by Dr. Charlton Bastian, on free nematoids, to which the well-known guinea worm seems really to belong. All the scientific books and news of the day are laid before the reader.

The Westminster Review. New Series, No. 66. April, 1868.

*** As usual, this Review contains its full and able summary of all the literary and political work of the quarter. And last much that is vigorous and trenchant, fair and really liberal, the orthodox reader will find some things which will act as a cold bath on his faith—whether as a tonic or

a depressant must depend on his reactive powers and stamina. We set our faces against the tendencies of the article on "Spiritual Wives." "The prospect of a gradual withdrawal from the sphere of legislation of all interference with the interior organisation of society," seems to mean that marriage shall be a temporary and voluntary union—a thing not fair to the "children."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Will *Verax* favour us with his name and address in confidence?

Dr. Dickson is thanked.

J. C. Galton.—The Society have not forwarded their work for our consideration.

An Apothecary's Widow 1,398.—A correspondent sends us the following note:—"'Pevetskeres'—fixed pair of scissors, something like household sugar breaker."

Very Sellers.—We regret to say that the report of Professor Pisa's death which was widely circulated three weeks ago by the usual channels of Continental intelligence, has never been contradicted on the Continent. We fear there can be no doubt of its truth.

The Society for the Relief of Widows and Orphans of Medical Men.—All our readers who are not already members of this Society should hasten to join it—if they are not married, as a duty to their married brethren who may be in a less prosperous condition in life; if they are married, as a duty to their wives and offspring. The amount of good done by the Society is very great, but its resources are limited, and want great additions to insure perfect efficiency.

A Workman.—We do not give Medical advice. Relinquish the whisky, and you will be able to feed a Doctor.

A Naval Surgeon.—In reference to a statement in the *Medical Times*, we have authority for stating that Dr James M'Keith, R.N., of Stirling, received the Fellowship of the Royal College of Surgeons of England in the usual manner by election, on the recommendation of six Fellows and by payment of the ordinary fee.

Robert, Liverpool.—Mr. Erasmus Wilson received his Professional education at St. Bartholomew's. He is an honorary Fellow of the College, and was the first gentleman who submitted to an examination (then required) preparatory to recognition as a teacher of anatomy. The late Mr. Dalrymple, the celebrated oculist, was a member of the Council; his bust adorns the Hall of the College.

A Bewildered Student.—If a notice of your apprenticeship to the gentleman mentioned was duly forwarded to the College, it would be recognised as a part of the four years in the acquirement of Professional knowledge demanded by the authorities, and, having completed three winter and two summer sessions at St. Bartholomew's, you can now offer yourself for examination. There will be a meeting this day (Saturday).

THE FREE HOSPITAL AT TOTTENHAM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As there appears to be some misapprehension among the Medical Practitioners of the neighbourhood, and possibly more extensively, with respect to my connexion with the Free Hospital at Tottenham, I beg to state through your columns that the institution is entirely unconnected with homœopathy, and that I have accepted the office of Honorary Surgeon upon the distinct understanding that Dr. Laseron's name is not to appear on the Medical staff, and that he shall in no way interfere in the Medical treatment of the patients. I am, &c.

Tottenham, April 8. E. HOOPER MAY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As I observe that, in your reply to "Inquirer," you state that I am on the Medical staff of the Bethesda Free Hospital, I beg to inform you that I take no part whatever in the Medical treatment of patients in that Institution, of which I am merely the general director. The honorary Medical staff consists of Dr. Hooper May and Dr. Groth. At the same time I beg to inform you that I have discontinued practising as a homœopath.

Edmonton, April 15. M. LASERON, M.D.

PROPOSED RECONSTRUCTION OF THE ARMY MEDICAL DEPARTMENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the article of last Saturday's *Lancet* on the reconstruction of the Army Medical Department, one of the advantages claimed for the unification plan is that the number of detached Hospitals would be reduced. Now, I should like to know how this desirable piece of economy is to be brought about without changing the entire system of the British army, as well as that of the Medical Department. At present regiments are scattered all over the country, and even broken up into small detachments, one regiment or part of a regiment constituting often all the troops in any particular town. Now, a regimental Hospital, or Hospital of some sort, must be close at hand for the sick of this regiment or detachment. No one would surely propose that a general Hospital should be established in some place equally distant from a number of other places, and that all the sick from these other stations should be forwarded every morning by rail. Even in towns where two regiments are stationed, as at Manchester, the barracks are often so far apart that a Hospital common to both would be inconvenient for one or other, or both, as it could hardly be situated in a position equally convenient for both regiments, unless situated half way between them, when the sick of each would have (at Manchester) a mile to go to Hospital. Even at Aldershot, a general Hospital for the entire camp, or two general Hospitals, could not fail to be more inconvenient for all, except the regiments in their immediate neighbourhoods, than the present system of small Hospitals for each regiment close to where that regiment is. Lastly, is it proposed under the new system to attach Surgeons to regiments, or, like the chaplains, to stations? Is the Surgeon to have quarters in barracks, or out of them? If the former, I doubt his feeling very comfortable; if the latter, the authorities must either build a Surgeon's house or give lodging money, both involving expense. Are regiments that march by road, as cavalry and artillery, to march without Surgeons, or are a certain number of Medicoes to be trained to the saddle in order that they may accompany these branches of the army on the march? I suspect the selected Surgeon would be happy on the outside of the kicking trooper which would no doubt be kindly supplied by the regiment. In this country regiments can quite well march without Surgeons, as lots of civil Practitioners are to be got at every town in which they halt. But how would it be in time of war? I can only add, in conclusion, that, if the unification plan is ever carried out, it is to be hoped the resulting corps will in no way resemble the present Medical Staff, the members of which are shifted about once a week, and are so uncertain how long they may stay at any one place that it is hardly worth while to unpack one's luggage, and as to furnishing a room, it is out of the question. This is a pleasant service for married people; they generally spend their entire pay in moves. I have noted these few things down in the hope that the promoters of the new plan will explain what the resulting corps is to resemble, and should you think this worth inserting, you can do so.

April 7. I am, &c. LOOK BEFORE YOU LEAP.

THE PURIFICATION OF WATER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I would make a few comments on the remarks of my critic "Sanitas" in reference to my observations on Professor Attfield's olfactory water test. He says: "Of course householders would get still earlier intimation, or else the comforting assurance that the water contained no organic impurity, by seeking professional assistance; but such a statement by an analyst in a leading newspaper would have been scarcely ethical. I have found Professor Attfield's hints of very great use, and am convinced that few persons besides your correspondent, Mr. J. D. Muter, could possibly have received from them the impression that any water free from odour is fit to drink." It is evident from this that "Sanitas" has had but very little, if any, experience of the permanganate test. He has, in consequence, failed to catch the point of my observations. Owing to its extreme simplicity and the rapidity of its visual indications, the permanganate test, which is not strictly a scientific, but a sanitary one, is admirably fitted for popular use and for affording without professional assistance that "earlier information or comforting assurance" which, by your correspondent, is considered desirable, but beyond the power of the olfactory test. The condition of water free from smell or incapable of becoming odorous under the latter test, but unfit to drink on account of organic pollution, will be immediately revealed by the permanganate test. "Sanitas" has no doubt, as he says, found the olfactory test very useful, but he would have found the permanganate one still more so. I therefore maintain of the former test, that although it is an exceedingly ingenious extemporary method of recognising pollution in water, yet the time required in carrying it out is sometimes so great, and the nose, especially among persons who have not been used to discriminate faint odours, is so far inferior to the eye, that in comparison with the latter test it must be set aside as having only secondary claims upon our notice as a useful sanitary water test for ordinary occasions. Although I thus give preference to the permanganate, yet I think, as stated in my first letter, that Professor Attfield's test is well worth knowing as an excellent makeshift, and I give that well-known and able gentleman every credit for making it public. I am, &c.

London, April 7. JOHN D. MUTER.

A NOVEL IN HYDROPHOBIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In all incurable diseases the Physician's object in treatment is to prolong the life of the individual and to make the death-bed less agonising. Thus the Surgeon's knife is boldly thrust to remove any cancerous growth, not with the intention to extirpate the disease from the system, but to put off the fatal day to a more distant period; thus, even knowing the patient as doomed, the Physician plies his pharmacopœia to afford relief to the devoted victim up to the last day of his illness; and thus in hydrophobia, also, our chief object is (in the absence of a specific remedy) to mitigate as much as lies in our power the agony of the convulsive fits and the parching thirst. In this terrible disease all the narcotics have been tried to produce a calming effect, but all have signally failed to bring on the desired object. The difficulty of swallowing liquids, or even of swallowing at all, has induced many to try remedies in the form of injection into the veins, hypodermic injection, or of vapour baths.

In a case that I had to treat in the Nagpore City Hospital, and which occurred in a middle-aged young man three months after he was bitten by a rabid wolf, I was induced to give trial to repeated hypodermic injections of morphia into the neck until the patient dozed to sleep. The history of the case was somewhat as follows:—

Whilst sleeping under a tree on the roadside he was bitten on the foot by a rabid wolf. He went to some neighbouring dispensary, where the wound was burnt with caustic. It ulcerated, and took three months for perfect cicatrisation. The cicatrices were hard, elevated, but not painful. Immediately after the wound healed, the disease commenced. On his admission into the Hospital six or eight hours after the true setting in of the disease, he had an anxious and apprehensive countenance. Eyes were prominent; body clammy; perspiration profuse; very irritable; respiration irregular and sobbing; sight of water brought on dyspnœa; very thirsty, tongue moist. Had not been able to take a drop of water since the disease commenced, but constantly implored for drink. No foaming at the mouth. I administered hypodermic injection of morphia gr. ½ every half-hour until he felt sleepy, and ordered opium smoking (opium gr. ij., and tobacco ℈j.) frequently. Two hours after, having had three injections in the interval, and smoked as many pills, he felt much relieved. He asked for water, thinking he would now be able to drink himself, and although he was still unable to quench his thirst, his dyspnœa was decidedly less. He wished to be left alone that he might sleep, but unfortunately, half an hour after, I was led by the officious recommendation of a friend to try atropia in place of morphia. Of a solution containing 2 grs. to 3j., 10 minims were first injected in the back of neck, and some 6 minims a quarter of an hour afterwards. Within five minutes the pupils became extremely dilated, he became restless, the dyspnœa and fits grew frequent till they became continual, and the patient

died within one hour with a greatly accelerated pulse, profuse foaming at the mouth, and perspiration.

Atropia is favourably spoken of by Physicians as a quieting agent in this disease, and we see in the late edition of Tanner's "Practice of Medicine" it has received a prominent place. I am not in a position yet to ascribe the change to worse in my patient to the effects of atropia; but since the bad symptoms immediately followed its administration, I beg to ask the opinion of the Profession whether they can be related to each other as cause and effect. They might have been simultaneous in their origin, but then that the full effects of atropia had no power to quiet the convulsive fits is an assertion that cannot be doubted.

An opinion is gaining ground in this part of India of the counteracting effects of opium and belladonna. Although both are narcotic in their therapeutical action, yet the contraction of pupil in one and the dilatation in the other have led many to try one remedy in case of poisoning by the other; with what effect I am not aware of, but I beg to be informed whether you in England are in the habit of so administering, and on what principle.

I am, &c.

GOPAUL CHUNDER ROY, L.M.S. Calcutta University; Teacher, Nagpore Medical School.

Nagpore City Hospital, Central India, March, 1868.

COMMUNICATIONS have been received from—

Mr. E. H. MAY; Mr R. C. MOORE; T. H. P.; Mr J. H. CONSTABLE; Dr. HILTON FAGGE; F.R.C.S.; Mr J. B. CHEESEMAN; Dr. LETHEBY; Mr. BISHOP; Mr. JOHN MACKEAVE; Dr. SEDGWICK; Mr. CHUNDER ROY; Mr. T. F. COOKE; Dr. PEARSE; Dr. JOSEPH ROGERS; Mr. C. MACNAMARA; Mr W. TALLACK; Dr. WHITMORE; Mr BERKELEY HILL; Messrs. HALLETT and Co.; M. A. B.; Dr. A. BOLTON; Dr. BROADBENT; Mr BLAKE; A WORKMAN; A. L. M.; A LATE HOUSE-SURGEON OF THE ROYAL FREE; Dr. HICKMAN; Dr. LASERON; Dr. GROTH; Dr. JAGO; Dr. GERVIS; Mr. CHATTO; Mr. STONE; Dr. BARNES; Mr. TYRRELL

BOOKS RECEIVED—

West Riding Pauper Lunatic Asylum Report—Journal of the Scottish Meteorological Society, No. 17—Wilts County Asylum Report—United States Sanitary Commission Memoirs—Harvey on Vaccine Lymph—Sanitary Siftings, by a Naval Officer—Journal of Cutaneous Medicine, No. 5—British and Foreign Medico-Chirurgical Review—New Orleans Journal of Medicine, April—Frankenhäuser on the Nerves—Annual Report of Sussex County Lunatic Asylum—Annual Report of Cumberland and Westmorland Lunatic Asylum.

NEWSPAPERS RECEIVED—

Banffshire Journal—Birmingham Daily Post—Medical Press and Circular.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 11, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1866.)	Births Registered during the week ending April 11	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending April 11.	Temperature of Air (Fahr.) Highest during the Week	Temperature of Air (Fahr.) Lowest during the Week	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3129[illegible]	40·1	1068	1441	1274	66·6	32·9	45·7	0·59	39
Bristol (City)	167487	25·7	117	77	4100	..	..	..	..	..
Birmingham (Boro')	35[illegible]	4·0	250	171	141	62·0	31·0	44·3	0·32	23
Liverpool (Borough)	5[illegible]	98·0	284	290	276	60·0	30·4	44·7	0·62	42
Manchester (City)	3[illegible]	81·8	228	248	186	63·7	30·0	44·2	0·64	43
Salford (Borough)	117162	22·7	74	59	61	62·5	29·8	42·5	0·64	43
Sheffield (Borough)	202[illegible]	19·2	157	122	99	60·8	30·7	42·4	0·49	49
Bradford (Borough)	1[illegible]	10·4	69	50	65	..	..	..	..	..
Leeds (Borough)	2[illegible]	11·9	99	120	94	62	24·5	42·1	0·56	57
Hull (Borough)	1[illegible]	10·4	78	50	45	63·4	28·0	44·8	0·47	48
Newcstl-on-Tyne, do.	1[illegible]	12·9	57	68	57	..	..	..	1·74	176
Edinburgh (City)	177039	40·6	127	85	95	54·7	29·4	41·8	0·70	71
Glasgow (City)	44[illegible]	88·9	334	262	216	58·4	28·9	41·0	0·73	74
Dublin (City and some suburbs)	316[illegible]	32·8	122	*157	136	..	..	..	..	..
Total of 14 large Towns	[illegible]	34·7	3163	28·5	66·6	24·5	42·8	0·55	56	
				Week ending April 4.	Week ending April 4.					
Vienna (City)	(1863) 560000	..	..	..	309	..	..	41·2	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·706 in. The barometrical reading increased from 29·87 in. at the beginning of the week to 29·90 in. by 10 a.m. on Sunday, April 5; decreased to 29·23 in. by 3 p.m. on Wednesday, April 8; increased to 29·91 in. by 9 a.m. on Saturday, April 11; and was 29·90 in. at the end of the week.

The general direction of the wind was variable.

Note.—The population [illegible] in Ireland till January 1 1864; [illegible] in Dublin [illegible] Dublin [illegible] Dublin [illegible]

ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,

Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

Apoplexy.

What do we mean by the term apoplexy? I am sorry to say that I am much in the same difficulty as I am with some other terms in use, scarcely able to define it, for the simple reason that the expression has had a different value at various times, the probabilities being that it is used in a very different sense nowadays from what it was fifty years ago. Then the term apoplexy was applied in its more strict signification to a malady characterised by certain symptoms: of late years it has been more generally applied to a particular pathological condition. Then it was applied to the case of a person falling in a fit; now to a hæmorrhage in the brain.

The word ἀποπλήσσω referred of course to the fact of a person being struck down, and the old definition of apoplexy implied that a sudden seizure had taken place, with loss of consciousness, from which recovery might soon take place unless death occurred. Thus, Cullen speaks of apoplexy with effusion of blood, or sanguineous apoplexy, serous apoplexy, hydrocephalic apoplexy, apoplexy from poisons, drunkenness, epilepsy, etc. All this is rational, but by using the term in this extensive sense, it comes to signify little more than insensibility, and thus wholly loses its value as a technical expression, the same word being adopted for the case of one who has extensive effusion in the brain, and for another who is simply dead drunk. I should say, however, that there are still some Physicians who use the term in this extended sense, and speak of any one who falls in a fit as apoplectic. This is, however, I believe, not the usage of the Profession, for I have taken the trouble to inquire of Medical men whom I meet what they imply by the term, and I should say that the word apoplexy is restricted by the majority to cases of effusion of blood in the brain; our experienced Resident Medical Officer, Mr. Stocker, always uses the term in this sense. If any doubt existed as to the usage of the Profession in this matter, we might recall to mind that effusions in other parts of the body are called apoplectic; and thus we speak of apoplexy of the lung, of the spleen, etc. Of course, if you consider the etymological meaning of the word, no expressions could be more absurd than these, but they show in what sense the term apoplexy is generally understood. I am under the impression that nine Medical men out of every ten would imply by the term apoplexy sanguineous effusion. If this be so, we cannot use the term in its original sense, as was done by Abercrombie, and followed by most writers after him; for, by so doing, we shall have to include epilepsy and many other diseases which have already their distinct appellations affixed to them. If, on the other hand, we use the expression for effusions of blood simply, we are departing from the original meaning of the term. Some of you may say, why not limit the expression to those cases of sudden fits which are due to effusions of the blood on the brain? The answer is this—that effusions of blood do not necessarily produce sudden fits of insensibility, or those symptoms which were described formerly under the term apoplexy. We are on the horns of a dilemma. The fact is that pathology has completely upset our notions about the disease. Apoplexy, or "the being struck down insensible," as formerly understood, included such a variety of complaints that the term could be of little value. After some years it was limited, as now, to certain cases where blood was effused in the brain; but it unfortunately so happens that these are the very cases in which apoplexy, strictly speaking, is not present. I should have liked to renounce the word, like many other Medical expressions; but as it must be retained, we will imply by the term the case where blood is effused, and forget altogether its etymology. This we do in the case of the lungs, where the term is altogether out of place.

I am compelled to make these remarks because I believe that although there is now a pretty general consent amongst members of the Profession as to the use of the term, much confusion is introduced into the subject by the adherence of writers to the expressions used by our ancestors. Thus, by some apoplexy is defined to be a disease characterised by the sudden loss, more or less complete, of volition, perception, sensation, and motion, depending upon sudden pressure upon the brain, the tissue of which may be morbid, originating within the cranium. This is so wide a definition that it almost ceases to be a definition at all; but it certainly implies that the term apoplexy is to be used for cases where a certain set of symptoms are present. Another writer defines it as loss of consciousness, with feeling and voluntary motion impaired, or a suspension of the functions of the brain. I have no objection in the abstract to these definitions, if we be only agreed to use the term in the same sense. I cannot but think that if the opinion of the Profession was canvassed you would not find the term apoplexy applied nowadays to those cases where there was simple loss of consciousness and no other evidence of effusion of blood on the brain.

Most writers, I say, have followed Abercrombie, who strictly kept to the true signification of the term. This capital observer says the attack occurs under three forms. In the first form the patient falls down suddenly, deprived of sense and motion, and lies like a person in deep sleep, face flushed, breathing stertorous, pulse full; in some cases convulsion occurs, in others rigid contraction of muscles. This may pass off. Such cases as these he calls *primarily apoplectic*. I think there is very little doubt that some of these cases were instances of Bright's disease, many of them epilepsy and various other diseases, which would at the present day be recognised as distinct affections, but certainly not be styled examples of apoplexy. Abercrombie, pursuing his theme and adapting his expression apoplexy to the etymological signification, then speaks of the second form of apoplexy, or that *not primarily apoplectic*, where there is no loss of consciousness, but syncope, with temporary recovery and subsequent sinking into an insensible or apoplectic condition. In these cases, he says, blood was often found effused, so that the very cases which we at present style *par excellence* apoplectic—those cases where a vessel is ruptured and blood effused—are those which Abercrombie styled *not primarily apoplectic*. He used, as you see, the terms apoplectic and insensible as convertible terms. His third form is that where the patient is suddenly deprived of power of one side of the body and of speech without stupor. These he styles the paralytic cases, and says the symptoms were due to effusion of blood or softening. A man who suddenly falls down insensible and struggles, presenting the symptoms which Abercrombie describes as being primarily apoplectic, we should now say has a disease bearing some other name, whereas the very patient who, according to this author, is not truly apoplectic, is the very one whom we should nowadays declare to have apoplexy. It is a hard thing to have to perplex you in this way, not about matters of fact, but about difficulties of our own making, and due more especially to authors using the term in one sense when writing, and in another in speaking or in conversation.

In giving, therefore, the symptoms of apoplexy, you will see that they must be of the most varied character, since effusion of blood taking place into different parts of the brain will produce of necessity very various effects. It would be absurd, therefore, for me to detail to you the symptoms of apoplexy as formerly given in the books, since these have reference alone to a condition which, on altogether antecedent grounds, is called apoplexy. These symptoms often denoted epilepsy or Bright's disease, and often, too, an effusion of blood. If, for example, you had been called to a patient who had been suffering for some hours from increasing effusion of blood in the brain, you might have the symptoms described present. The case would be apoplectic in every sense of the term. The general idea of a person taken with apoplexy is that he is struck down senseless, having perhaps previously had some headache, or felt sick and faint. He may, in fact, have been first collapsed; then, a reaction having set in, his skin had become hot, his face red, and his pulse throbbing or labouring. He would be lying quite insensible, the face drawn up, showing some paralysis, or with the limbs on one side hemiplegic. If you are called in and see a patient in this condition, you may call him apoplectic if you will, using the term in its original sense; but I believe, unless you had the history of the invasion, it would be impossible to say whether or no that man had extravasation of blood in the brain. As it is impossible to go over every possible variety of apoplexy, we had better take the cases where effusion of blood occurs on the surface, where it occurs in the substance, and where it takes place in the central ganglia.

Beginning with the last, which is the most common—the patient, say a man, and generally somewhat advanced in life,

has an extravasation of blood occur in either c. striatum or thalamus. He experiences suddenly a strange feeling in the head; a giddiness; he may fall; he turns pale; his pulse goes down; and he is sick. He shortly recovers, and perhaps, with help, is able to walk a short distance, when it may be observed that one side is weak. These were the symptoms of a man who was so seized whilst working on the Hospital premises, and being brought to the ward, we had an opportunity of immediately seeing him. An hour afterwards, he was lying in bed completely hemiplegic, having lost power of his right arm and leg; the face also somewhat fallen on that side; and, being thus paralysed, he was not able to speak. When asked to put out his tongue, it protruded to the paralysed side. Now these were all his symptoms. It was a clear case. He had suddenly had some injury to the motor tract, which no doubt was due to effusion of blood, and, as no special nerves were affected, I said it was in corpus striatum or thalamus—most likely striatum, as being the commoner seat. At this time his difficulty of speech could not be decided as aphasic. In speaking of aphasia on previous occasions, I ought to have informed you that the term cannot be applied to the simple loss of memory of some words, since this condition is met with in disease of the brain of all kinds, and in simple cerebral disturbance arising from vitiated blood. Indeed, the forgetfulness of words is the first sign of a dulness of the mind. A maniac may be most voluble, whilst the most intellectual, when his mind is otherwise occupied or in reverie, will often forget or misuse a word. A drunken man will do the same, or one with fever. So in actual brain disease anything which disturbs the mental operation may cause forgetfulness of words; and this symptom may arise under a great variety of circumstances. Now mark, this man had not lost his consciousness, and therefore was not apoplectic in the old-fashioned use of the term—in fact, as Abercrombie would have said, he was not primarily apoplectic. Since, however, we nowadays should call such a case, *par excellence*, one of apoplexy, and the clot which we found after death an apoplectic clot, it certainly implies a contradiction in terms to say a man is apoplectic who has no unconsciousness, and yet we must use the term so.

That, in such a case of effusion, paralysis is the main symptom, is seen in the fact that such extravasation may occur during sleep, and the patient wakes as usual with his intellects unclouded, but finds that on attempting to get out of bed he falls to the ground, and afterwards discovers that he cannot articulate, or that his speech is thick. He is hemiplegic in the manner in which I told you. If the clot be circumscribed in either of the central ganglia, no worse symptoms need arise, but the patient gradually recovers, first getting the use of his speech and then of his extremities. But it is only in a certain number of cases that the effusion is so slight; and thus, as in the case of the man just now mentioned whom I saw after the occurrence of the fit, I said that the blood was limited to the ganglia, but whether it would there remain or extend still further I could not say. I said that if it burst through into the ventricles, then he would fall into a state of coma and have the usual so-called apoplectic symptoms. I came in to see him in the evening, and this had occurred—the blood had burst through into the ventricles. Then a great presssure was taking place on the surrounding parts, squeezing the convolutions out flat against the skull, pressing downwards, filling the fourth ventricle, and so involving the respiratory and other important nerves. He was then in the truly apoplectic condition as originally understood—in a perfect state of insensibility or coma. The whole body was paralysed, the limbs dropping when raised; the rectum had lost its power, and there was a fæcal escape into the bed. The breathing was irregular, mucus collected in the tubes, and in a few hours he died.

Snoring is a temporary, whilst stertor is a real, paralysis of the palate, whereby it flaps to and fro as the patient breathes. As stertor occurs during respiration, so during expiration there is a peculiar puffing out of the cheeks from paralysis of the buccinator and other muscles, occurring more on one side than the other, according to the side affected. As the chest and the lungs are paralysed, so the mucus collects from an inability to cough, and thus it flows from the mouth, or is blown out on one side by force of expiration. The surface of the body is congested, and the face livid. The heart is also partially paralysed, and thus [illegible] find the pupils contracted. Much has been said about the condition of the pupils in brain disease, so that we may diagnose between concussion, compression, apoplexy, and drunkenness, and on more than one occasion we have had letters to the newspapers informing us that mistakes would not occur if we had recourse to the state of the pupils. But, as I have already said, I think there is no rule in any of these conditions, and that the state of the pupils will depend much upon the actual change which has occurred; but you may be sure that either an extreme dilatation or contraction denotes disease. In that severe form of apoplexy where blood is poured into the ventricles, and presses on the base of the brain, the pupils are very generally minutely contracted. Where a large effusion has occurred into the substance of the brain, the pupil on that side will often be larger than the other, and sometimes both eyes are forcibly turned away from the side that is paralysed. Sometimes the paralysed side is rigid, which was regarded by Dr. Todd as an evidence that the effusion had occurred in a healthy brain, and that the paralysis was not due to softening. I cannot say that this explanation is correct, but that an irritation is set up in the corresponding ganglia on the other side you may know by the twitching or convulsive movements which are frequently observed in the healthy limbs. Sometimes it is merely seen as a constant restlessness and pulling up of the bedclothes by the hand; thus, unless carefully watched, the patient may wriggle off the bed. The convulsive movements are sometimes so severe that the case is regarded as one of epilepsy; and thus, just as epilepsy accompanied by unilateral paralysis is sometimes mistaken for apoplexy, so I have on several occasions seen apoplexy called epilepsy. When there is much pressure on the brain, the surface in a few hours becomes inflamed, as I have frequently seen, and this is, perhaps, another cause for special symptoms.

I should say this which I have described is the commonest form of apoplexy, and, when witnessed from the commencement, it is the easiest to diagnose. There is first the shock, then the hemiplegia and loss of speech, followed by such symptoms as would denote the spread of the blood through the substance of the brain, or its bursting out on to the surface, or, as more frequently happens, into the ventricles—viz., coma, stertor, and all those symptoms which are usually described as constituting apoplexy. It often happens that some hours may have elapsed before the Doctor is called in, and then all the earlier symptoms have passed. He finds the patient in a perfectly insensible condition, with contracted pupil, a slow labouring pulse, flushed face, profuse perspiration, stertor, froth issuing from the mouth, and other signs which "foretell the ending of mortality."

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF TUMOURS BY ELECTROLYSIS.

By JULIUS ALTHAUS, M.D., M.R.C.P. Lond.,
Physician to the London Infirmary for Epilepsy and Paralysis.

It is now nearly twelve months since I first brought my researches on the treatment of tumours by electrolysis before the Profession, and the attention and interest with which that communication was received contributed not a little to encourage me to persevere with my investigations, and to endeavour to place the principles and practice of this treatment on a firmer basis. I am happy to say that my endeavours have, to a great extent, been successful; for not only have I been fortunate enough to treat a considerable number of cases of this kind with good results myself, but, what is far more important and satisfactory, since the publication of the paper just alluded to, many brother Practitioners in this country and abroad have followed in my wake, and given the subject their serious attention. The treatment of tumours by electrolysis has, indeed, been practised in many English as well as foreign Hospitals; and, although the results have perhaps not been uniformly successful, owing, I believe, chiefly to the mode of proceeding not being as yet fully understood, yet enough has been ascertained to show that we possess in it a valuable mode of dealing with certain kinds of tumours to which no other operative proceedings are applicable, and also with those cases where, although other Surgical procedures might be equally suitable for the complaint, yet the patient's dread of more formidable

measures is such as often to induce him to bear the disease rather than seek the remedy, while no fear is ever expressed of electrolysis, which has the advantage of being a gentle and almost entirely painless remedial agent.

Before communicating the results of my more recent experience in this matter, I will state as concisely as possible the principles upon which this treatment is based. It consists simply in making use, not of the calorific or heating effects of the continuous galvanic current, which have long been used in Surgery, being well known under the name of the galvanic cautery, but, on the contrary, in utilising the property possessed by the same current of decomposing all chemical compounds, and thus gradually destroying all organised tissues which may be brought within its circuit. It is, then, the *chemical* or *electrolytic* effects of the continuous current, the scientific use of which it has been my endeavour to introduce into Surgical practice.

In order to obtain these electrolytic effects, we require a large quantity of electricity always travelling in the same direction—a constant and reliable current—a battery which should be easy to manage, and which is not liable to get out of order, and be of such bulk as to render it possible to carry it about. The battery, which is a modification of Daniell's, is so arranged that the current furnished by it continues reliable for three or four months. During the whole of that time no thought need be given to the instrument, which is always ready to act, and only very gradually loses a certain amount of its intensity. Every three or four months a fresh solution of sulphate of copper should be substituted for the one previously used. The weight of the battery is about thirty-five pounds, and it is therefore sufficiently light to be taken into and out of a patient's room. No acid fumes are developed, and the instrument is by no means unsightly (Fig. 1).

Fig. 1.

For large tumours the current of twenty or thirty cells is generally required.

In order to use the electrolytic effects of the battery without danger to the patient, it is indispensable that only the negative pole should be used for disintegrating the tumour, the galvanic circuit being closed by putting the positive pole outside on the skin. If the *positive* pole were applied internally to the substance of the tumour, great mischief might be produced, for the following reason:—As soon as chemical compounds, whether organic or inorganic, are placed within the circuit of the battery, these compounds are decomposed—oxygen, chlorine, and acids being attracted to the positive pole, while hydrogen and alkalies accumulate at the negative pole. The immediate effect of this decomposition is that the positive conductor is oxidised and chlorinated, and from a metal changed into a metallic salt, since no metal whatever can resist the effects of oxygen and chlorine in their nascent state. On the other hand, metals are not changed by hydrogen or free alkali, and the negative pole, therefore, always retains its pure and bright metallic condition, whatever may be the power of the current used or the length of time during which it is made to act. Thus it appears that, in using merely the negative pole of the battery, we do not introduce any foreign substance into the tissue of the tumour, but only decompose its structure; while, if we were to use the positive pole, we should introduce salts of iron, copper, silver, gold, or any other metals used as conductors—that is to say, irritant foreign bodies, which experience has shown to be liable to cause inflammation, suppuration, and other undesirable Surgical complications.

The same considerations serve to explain the different effects which are produced if we make the galvanic current act on animal substances taken out of the body. Thus, for instance, if we immerse a steel needle connected with the negative pole, and another steel needle connected with the positive pole, into the white of an egg, a peculiar substance is formed round the negative pole, which at first sight looks like a coagulum or clot, but is in reality no clot, but a sort of lace-like froth, which consists of the smallest particles of albumen, mechanically driven asunder by the nascent hydrogen, and chemically altered by the evolution of free alkali, the presence of which may be shown by its effects on litmus and turmeric paper. An entirely different effect, however, is produced at the positive pole, where the steel needle is oxidised, and, by the development of sulphuric acid and chlorine, sulphate and chloride of iron are formed, which impart a brown-reddish colour to the albumen, with which they form an organic compound. If we substitute gold needles for steel needles at both poles, we perceive that the effect at the negative pole is exactly the same as that produced by the steel needle, while at the positive pole the effects are different, for there we have no longer chloride and sulphate of iron, but perchloride of gold, by which a greenish-blue clot is formed. If the nature of the positive electrode be once more changed by substituting a brass or copper wire for the steel or gold needle, the effect is again different at the positive pole, where a white clot is produced, which is due to the action of the copper salt on albumen, while at the negative pole the same substance is formed as before. By using the negative pole, therefore, exclusively for tumours, no irritant foreign bodies are introduced into the substance of the tumours, as would be done by the positive pole.

The electrolytic treatment acts in a threefold manner—viz., *1st, through the mechanical disintegration of the tissues by the nascent hydrogen.* If a piece of any animal substance, say a muscular fibre, be placed under the microscope and subjected to the action of the negative pole, the first thing observed is innumerable bubbles of hydrogen gas rising from the fluid part of the fibre. These bubbles are seen to force themselves between the finest structural elements of the tissues, driving them mechanically asunder, and thus allowing a more ready action of the *potential cauteries*, potash, soda, and lime, which are at the same time developed from the saline constituents of the animal tissues.

This *development of free alkali* is, in fact, the second factor of electrolysis. That alkali is developed is easily seen by applying litmus or turmeric paper to the tissue which is in

contact with the needle. Amongst the saline constituents of the tissues, the most important are chloride of sodium, chloride of potassium, and phosphate of lime. All these are decomposed by electrolysis, chlorine and phosphoric acid being attracted to the positive pole, while potash, soda, and lime accumulate round the negative pole. The sores which may be produced in the skin by the negative pole resemble exactly those which are produced by caustic potash; and the same may be said of the cicatrices, for those produced by the negative pole have, like those caused by caustic potash, no tendency to contract, but they are soft and become gradually similar to the surrounding skin, so that after some time no trace of the scar is perceptible unless the action was originally very prolonged and very powerful.

The last factor of the electrolytic proceeding is a more immaterial, but for all that not a less real one. It consists of the *modification of nutrition which is produced by the physiological action of the continuous galvanic current on the vaso-motor nerves of the parts brought under its influence.* That such effects are produced might be assumed from analogy; but I have also, in the practice of the electrolytic treatment, met with facts which could not be explained in any other manner than by this physiological action of the galvanic current. These facts were of a twofold kind—viz., shrinking of such parts of the tumour where the needles had not been applied, and cessation of pain throughout large painful tumours and their neighbourhood after a few localised applications of the current. If we look upon a pathological hyper-activity of the vaso-motor nerves, which preside over and direct all processes of nutrition throughout the system, as the immediate, if not primary, cause of those errors of nutrition which we call tumours, it is easy to understand why the continuous galvanic current, a somewhat prolonged application of which may be made to exhaust nervous excitability, should, if brought into direct and immediate contact with the vaso-motor nerves themselves, so alter their molecular condition as to make them less inclined to favour excessive growth—to inhibit, as it were, their hyper-active condition, and thus restore to them the balance of power which enables them to fulfil their functions as regulators of a healthy nutrition in the tissues.

(*To be continued.*)

A CASE OF

FIBROID TUMOUR OF THE MIDDLE FOSSA OF THE BASE OF THE CRANIUM,

INVOLVING THE LEFT GASSERIAN GANGLION AND ORBITAL NERVES, WITH COMMENTS THEREUPON.

By T. P. HESLOP, M.D.,

Physician to the Durham Eye Infirmary and Hospital

Early last year, S. H. B., a widower, aged 52, consulted me in reference to a feeling of numbness about the centre of the left cheek. He complained of pain in the left frontal region, but was otherwise in fair health. He meditated forming a new marriage-tie, and desired my opinion upon its propriety. I advised him to pause, and to take a long rest for the purpose of recruiting his overwrought nervous system. He was an ardent worker in mining and metallurgical matters, and had achieved an honourable name among men of science. A great commercial disaster befel him a few years ago, which he had made vain efforts to repair. My advice was of no avail, for he went soon afterwards to Paris, where he discharged the heavy duties of a juror at the International Exhibition. I did not see him again until the month of August, when I was summoned to visit him in consultation with Mr. Carter. He was suffering severe pain in the left fore part of the head. There was loss of sensation all over the integuments of this side from the forehead downwards, inclusive of the globe of the eye. There was partial ptosis; the eye was fixed, but vision unimpaired. The facial muscles acted well on both sides. The alæ of the nose and the commissure of the lips were normal. There was no complaint of difficulty of deglutition. At the end of a few visits my attendance ceased, for I could give no hope of effecting improvement in the case. During the summer he had consulted many distinguished members of the Profession both in London and Paris, including Dr. Gull, Dr. Sibson, Dr. Duchenne, and Mr. Paget. I was informed that the London Physicians agreed that there was no disease of the brain proper, and that the malady was in the [illegible].

My next visit was on March 23. He was in a state of stupor, from which it was not difficult to rouse him. The left eye was very prominent, and completely covered by the upper lid. The face was free from distortion, and I especially noted that the muscles of the root of the nose and forehead acted vigorously on both sides. The limbs were free from paralysis, and he swallowed easily when a spoonful of fluid was put to his lips. He rallied a little the next day, and sat up, but on the 25th the stupor increased, and ended in death. I give the following account of his symptoms during the last months of his life from the testimony of Mr. Carter, Dr. Blake, and the ladies of his family. The pain had become most severe, always referred to the left tempori-frontal region. The anæsthesia of the left globe and side of the face was complete, though less at the border of the lower jaw than elsewhere. The ptosis gradually became as I found it two days before death. The eye became very prominent, and was immovable. It never changed, but there was no inflammation of the superficial coverings. Six weeks before death vision was abolished. The sense of hearing was slightly impaired on the left side; but though sensation was so much compromised on the left side of the tongue and buccal cavity, he never admitted that he had lost his taste on this side. There was no complaint in respect of deglutition or mastication, but he was constantly tormented by the food getting between the left cheek and the jaws. The tongue was always protruded straight. He could walk easily, and had an excellent appetite. Some months before his death his memory became impaired. Poetry he was once able to recite without difficulty was forgotten. He could never recollect the name of Dr. Blake or Mr. Carter, but immediately recognised them when mentioned to him. He often miscalled things. A tippet he termed the "general" When he wanted Dr. Blake's medicine he called it the "result." If he attempted to read aloud, he continually put wrong and foolish words in place of the right ones. When he wrote, towards the end of his life, he wrote nonsense, using the same word frequently. Whenever he employed a wrong term in conversation, and the right one was named to him, he immediately used it, and showed his vexation at the mistake. His conversation, once so clear, became so confused that Dr. Blake constantly needed to have it interpreted by his niece.(a)

The diagnosis of this case lay on the surface. A tumour of the middle cranial fossa, engaging the left Gasserian ganglion and orbital nerves, could alone account for the symptoms observed. There was no symptom left unexplained on this hypothesis. This was, accordingly, the opinion advanced seven months before death. The necropsy was made thirty hours after death, and was limited to the brain. Mr. Carter and Mr. Macpherson assisted me at the examination.

The cranium was more than ordinarily asymmetrical, and the frontal bone remarkably thick. The left temporal muscle was but little thicker than cardboard, yellowish in tint, and more like fibrous tissue than muscle. On the right side the muscle was unusually developed and highly coloured. The veins of the surface of the brain were distended, and the convolutions of the hemispheres dry and sticky. On raising the brain from the base a tumour of the size of a large walnut, adherent to the dura mater in the left middle fossa, at once came into view. The membrane was easily detached from the fossa at its outer part, but towards the centre both it and the tumour were firmly adherent to the bone underneath. The convolutions of the middle lobe were closely attached to the mass, presented a softened semi-diffluent aspect, and exuded plentifully a thin yellowish fluid. On fully disengaging the tumour, it was found to occupy the whole space from the posterior border of the petrous bone to the sphenoidal fissure in the front, and seemed to penetrate this fissure partially. It occupied the whole of the sella turcica up to its right border, but stopped abruptly at the right cavernous sinus. In the right fossa the Gasserian ganglion, nerves, and dura mater were healthy. The posterior clinoid processes were destroyed, and, in a disintegrated state, formed part of the tumour. The surface of the body of the sphenoid was much eroded to its posterior edge. That portion of its greater wing on the left side which was beneath the tumour, and normally contains the Gasserian ganglion, its nerves, and the round and oval openings, was also eroded. Not a vestige was discovered of these structures or of the orbital nerves. All formed, with the tumour, one mass, whose separate parts were undistinguishable. Por-

(a) [illegible] The paper was easily [illegible] This [illegible] with the results observed after [illegible] the ophthalmic and third nerves.

tions of the morbid mass were traced into the openings just named. The left optic nerve was greyish in tint, shrivelled as compared with the other, and had attached to it, some distance from the optic foramen, a small piece of the mass. The ophthalmic vein and carotid artery were patulous, though surrounded by the morbid structures. There were very slight adhesions between the left border of the pons and the back of the petrous bone, but the meatus auditorius internus and the two divisions of the seventh pair were noted to be healthy on both sides. The brain presented nothing worthy of note, with the exception that the left optic tract was of a yellowish tint, and less compact than the right; and the corpus striatum on the same side was softer and paler than on the right. The white matter of the middle lobe corresponding to the convolutions in connexion with the tumour was very much softened, and contained the same yellowish fluid before mentioned. The convolutions of the anterior lobe were healthy. There was a little atheromatous deposit here and there in the arteries. The softened semi-fluid brain matter contained a great number of granular corpuscles. This material was, in fact, little else than a mixture of these corpuscles with a molecular detritus. No pus corpuscles were anywhere observed. The yellowish tumour was of very firm texture, and consisted of a finely woven fibrous tissue. It was nowhere softened, and no free cell-elements were discovered. The capillaries of the brain, so far as examined, were healthy.

I must dwell but briefly upon the many interesting points which arise from the consideration of this case. The tumour explains the loss of sensation on the left side of the face, of the eye, and the loss of vision. It equally explains the fixity of the globe, for all the nerves supplying the orbital muscles were involved in the disease. The Gasserian ganglion; the ophthalmic, superior and inferior maxillary nerves; the third, fourth, and sixth nerves; the petrosal nerves, formed part of the mass. The optic nerve was gravely compromised. The remarkable change in the volume and appearance of the left temporal muscle was doubtless owing to the injury of the inferior maxillary. There was no complaint of difficult mastication, with the exception noted. But there are probably no muscles in the body whose place can be supplied more easily by those of the opposite side than the muscles of mastication; and hence it is likely that a defect in their power, if confined to one side, would almost escape the observation of both patient and Physician. The peculiar form of the inferior maxilla, its movement as one piece, and the place of attachment of the temporal, masseter, and internal pterygoid muscles, render it certain that the vigorous action of these muscles on one side only would impress an extensive movement on the whole jaw in the upward and forward direction. Supposing all the masticatory muscles on one side were paralysed, a deficiency in triturating power from impairment of the external pterygoid may be expected to be the chief matter complained of by the patient. The difficulty of keeping the food between the jaws and within the proper buccal cavity was of course connected with the impairment of the nervous supply, both sensory and motor, of the buccinator muscle. Taste does not appear to have been impaired—a new proof of the correctness of Reid's views that the gustatory nerve is not the nerve of taste. It may be noted, in passing, that there was nothing in the necropsy to show that the chorda tympani nerve was disordered, and the facial was not involved in the disease. Bernard's experiments demonstrate that the former of these nerves is essential to the proper exercise of taste. This case tends to show the correctness of the view that this nerve arises from the facial, either from its gangliform enlargement or below the pyramid, and is not, as some maintain, a prolongation from the large superficial petrosal (Vidian), for the last must have been destroyed in the tumour.

The moderate impairment of hearing on the left side was manifestly not caused by any interference with the portio mollis at its bony orifice, or with the place of origin of the nerve. Its cause is to be found in the destruction of the petrosal nerves, with consequent impairment of the tympanic plexus, and, especially, in the disturbance of nutrition of the tensor tympani muscle from paralysis of the inferior maxillary.

The freedom of the left eye from inflammatory phenomena well illustrates Virchow's dictum that "a part may be paralysed without becoming inflamed; it may be anæsthetic without becoming exposed to this danger. There is always required, in addition, some special irritation either of a mechanical or chemical nature, and proceeding either from without or from the blood, in order to produce the peculiar liability." What Snellen, in fact, did for the eyes of animals in which he had cut the fifth pair by sewing before them their still sensitive ears, the implication of the third pair effected in this case by conditioning complete ptosis.

The interesting peculiarities of speech would deserve a longer commentary than is here possible. Sufficient to state that they do not indicate lesion of the co-ordinating faculty or of the organ of language, if such there be. They show an enfeeblement of brain-power in general—a diminution of the sharpness and strength of the mental grasp of words—an anamnesia proper rather than a genuine impairment, far less a loss, of the language-forming power. The state of the brain in the middle lobe may be held adequate to account for all this.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

ANEURISM OF THE ABDOMINAL AORTA, TREATED BY LIGATURE OF THE FEMORAL IN HUNTER'S CANAL— CLINICAL REMARKS—DEATH—AUTOPSY.

(Under the care of Sir WILLIAM FERGUSSON.)

NOWADAYS the old Hunterian operation of ligaturing the superficial femoral in the "canal" is but rarely resorted to. As a general rule, it is more convenient to deligate this artery in the region which is known as "Scarpa's triangle," but a few cases occur in which the old plan is the best, and, indeed, the only one which may be followed with propriety. A case of ligature of the femoral in Hunter's canal—not for popliteal aneurism, however—has recently been in King's College Hospital, and is one of great interest.

Aneurism of any artery of the body is a serious matter, but aneurisms of the "internal or inaccessible" kind are certainly fatal at a longer or shorter interval, do what one will. Some of these dilatations of arteries—for the "inaccessible" seem always to be the result of disease, and not of injury—can only be treated by either Brasdor's or Wardrop's plan: that is, the occlusion of the vessel and the filling up of the aneurismal sac is sought by applying a ligature below the seat of the disease, Brasdor's method differing from that of Wardrop, inasmuch as, while the former advocates the ligature of the trunk below the aneurism, the latter prefers tying one of the branches of the main vessel; and, no doubt, Brasdor's or Wardrop's mode of procedure is available, and has afforded most satisfactory results, where Hunter's method could not be employed.

Thomas A., aged 30, was admitted into the Albert Ward of King's College Hospital, January 28, 1868, suffering from aneurism. He states that eighteen months since he first noticed a pulsation just below the umbilicus on the left side. His abdomen always felt hard, but no swelling was noticed until some six months after he felt the "beating." The swelling rapidly increased, and for the last five weeks has grown enormously.

Present Condition.—Now, there is a large pulsating tumour on the left side of the abdomen, extending from the border of the lower rib on the left side to the line of Poupart's ligament, and from two inches on the right side of the linea alba, quite round to the spine on the left side. This tumour is hard, and has the peculiar distending feeling consequent upon the action of the heart. It is not painful on pressure, although there has been of late considerable pain at intervals in the dorsal region. The left leg is very much swelled, and has been extremely painful for some fifteen weeks. The glands above Poupart's ligament are swelled and tender. The man has a thin, wasted appearance, almost a cachectic look, and says he has been losing flesh rapidly of late.

The patient, on admission, was placed in bed, and the excessive pain was partially allayed by the subcutaneous injection of morphia (gr ½) night and morning.

February 11.—The outer side of the left knee is becoming very œdematous, and there is some puffy swelling about the shin of the same leg. The tumour is increasing in size very much, and seems to extend below Poupart's ligament.

March 11.—The tumour is still increasing in size, and seems to involve nearly the whole of the abdomen. It has extended more particularly in a downward direction, and now reaches about three inches below Poupart's ligament. The leg (left)

is very much swelled, and is exceedingly painful; in fact, all the symptoms have increased in a very marked manner.

14th.—Sir William Fergusson tied the superficial femoral. The patient being got under the influence of chloroform, an incision was made some four inches long, and the artery was tied in the place at which the operation was originally performed—viz., Hunter's canal. The sartorius muscle was drawn to the inside of the vessel. All that could be seen of the artery appeared quite healthy, and the vessel seemed perfectly normal in size. The leg was then wrapped in cotton-wool, and the patient was removed to bed.

Sir William Fergusson then made some remarks as to the supposed site of the commencement of the disease and the reasons which induced him to tie the artery in the manner he did. He said that various divisions had been made of aneurisms, but that the arrangement best to be adopted was that which separated aneurisms into two classes, the true and false. Thus there was the true aneurism, which was formed by one or more of the arterial tunics remaining intact and constituting a sac; and the false, where, from some wound of the vessel, the sac was made by the consolidation of the neighbouring tissues. It had been clearly proved by various dissections, in which the true arterial coats have been traced in unbroken continuity through the parietes of the sac, that aneurisms are sometimes formed without any rupture, by dilatation of all the three coats. This doctrine, advanced by Fernelius, Diemerbrock, and many others, has been called in question, although Hodgson has now fully demonstrated that Scarpa's view was a mistaken one. That besides these above mentioned, a variety of false aneurism might be noticed—viz., one in which the inner coverings of the vessel gave way, and the blood, driven by the constant action of the heart, made its way between the external and internal coats, and formed what was called a *dissecting aneurism*, of which Dr. Todd had related an example in the twenty-seventh volume of the *Medical and Chirurgical Transactions*. Sir William Fergusson went on to observe that the reason he had for adopting the Wardrop procedure of tying the vessel on the distal side was that no one could be sure where the original lesion causing the aneurism had begun; it might be that the aorta had given way or become dilated just above its bifurcation into the common iliacs, or it might happen that the left common iliac was affected near its origin. That the superficial femoral was the only artery that could be tied, was shown by the fact that the aneurismal tumour extended so low down the limb.

At 10 p.m. same day an operation. The pulsation in the tumour was markedly decreased above Poupart's ligament, and below this the peculiar distensile thrill was not to be felt at all. The leg was quite warm, and patient stated he felt now quite easy; although he was much distressed for an hour or two by vomiting, consequent upon the administration of chloroform.

March 15.—The pulsation in the aneurismal tumour is stronger, and the man complains of very great pain in the left knee. There has been no hæmorrhage.

16th.—Wound looks remarkably healthy. The patient seems quite to have recovered the shock of the operation, and states that there is much less pain in his limb, and that he is not so much disturbed by the pulsation of the aneurism in the abdomen.

17th.—Suppuration established.

18th.—Stump [illegible] the wound syringed out with warm water. No secondary hæmorrhage whatever.

30th.—The ligature removed from the wound. It came away quite easily. The tumour has now become very much harder, and is slightly diminished in size. There has been no increase down the thigh, but the leg has become even more œdematous and painful, and the man has a yellowish appearance.

April 1.—Some erysipelas about the wound. Poultice applied.

5th.—Erysipelatous blush has disappeared, but the patient seems to be gradually sinking. The swelling in the abdomen is less, and much harder, but the tumour extending down the thigh below Poupart's ligament is increasing in its dimensions [illegible] which has become more and more œdematous, though the temperature keeps up.

7th.—Patient seems very weak this morning, and, unless spoken to and roused, lies in a semi-unconscious state. Suppuration has been arrested, and the wound looks hard and dry.

10th.—This morning the foot (left) felt quite cold; the leg [illegible] and the patient was [illegible] p.m.

At the post-mortem examination, which was made twenty-four hours after death, it was found that the disease consisted of a true aneurism of the abdominal aorta just above its bifurcation into the common iliacs, and that the aneurismal sac was of pyramidal shape, reaching from two inches above the level of the umbilicus to Poupart's ligament. Within this sac the peculiar structure of the inner coat of an artery could be perceived; but the swelling below the groin had resulted from the giving way of the coats of the external iliac or common femoral—it was impossible to determine which—just at Poupart's ligament, causing a false aneurism in the thigh. The common and external iliacs above were found running over the upper surface of the tumour, and apparently quite healthy and of normal size. Below the fold of the groin all was in such a mess that but little could be made out save that the vessel was entirely obliterated at the point at which it was tied.

ROYAL FREE HOSPITAL.

PARTIAL EXCISION OF THE ANKLE-JOINT—RECOVERY.

(Under the care of Mr. J. D. HILL.)

The following brief note well bears out a maxim we have heard Sir William Fergusson make use of with regard to diseases of the articular surfaces of joints—viz., not to be in too great a hurry to amputate at once, but rather give the patient a chance of recovery with a useful limb by being content to perform a less severe operation, it need be by degrees, removing the diseased portions of bone piece by piece and from time to time.

A lad, aged 5, was admitted on August 7 with disease of the ankle-joint. He had had an injury to his foot some six months before; abscess formed and burst near the internal malleolus, and on introducing a probe considerable disorganisation of the joint was discovered, the joint-surface being bare and rough.

A V-shaped incision was made over the internal malleolus, and the articular surfaces of the tibia and astragalus were removed. These surfaces were much eroded, showing bare bone here and there, as had been supposed, and the tissues were very vascular.

The case did well for four or five weeks, when some portions of bone came away. Three or four weeks later more loose fragments were felt, and, the sinuses being opened up, the fragments were removed. The wound then healed completely, and at the date of his leaving the Hospital (January 5) he could walk well without assistance, and with only a slight limp. When seen a few days ago he was still well.

EXCISION OF KNEE-JOINT—RECOVERY.

(Under the care of Mr. J. D. HILL.)

The interest of the following case lies in the fact of the remarkably rapid union which took place in the opposed surfaces of the bones, and that the wound healed at once without the slightest bad symptom. The case was a good one for the operation. In many of those instances where we see bad results after excision, continual re-excisions, sinuses, and delayed healing, the case has not been properly selected for operation, and we cannot help feeling that in many cases amputation is indicated in preference. However, it is always easy to speak decidedly when—there being no case before us—we can deal in generalities. It is a great thing to save the patient's leg, and selection of cases for all Surgical operations is a difficulty. We have heard Sir William Fergusson say that if a leg were so shortened after resection that the foot nearly reached the pelvis the result was better than that of an amputation leaving no foot at all; and no doubt resection of the knee-joint is a valuable addition to modern Surgery, although the difficulty in selecting fit cases for the operation may render the result uncertain.

A healthy man, aged 34, was admitted February 5. His left knee was anchylosed, and the leg was fixed at a right angle with the thigh. He stated that he struck his knee severely about seven years ago, and "it had been gradually getting worse since." On admission the muscles of the leg and thigh were much wasted. There was great tenderness on pressure over the external condyle of the femur and head of tibia, and the joint was somewhat swollen. He complained also of a severe gnawing pain in it. The patella was firmly anchylosed.

The operation was performed by making a horse-shoe

incision over the knee, and next sawing out a wedge-shaped portion of the femur and tibia, removing the patella with the wedge.

The limb was afterwards put up on a straight back-splint, with two interrupted side splints.

The wound healed very rapidly, and a very firm union between the bones had taken place in five weeks, and the patient is about to be discharged quite well.

It is well to remark that in this case Mr. Hill did not excise because the limb was anchylosed, but because, besides the anchylosis, there was evidence of disease of the bone. The question of dividing the tendons and forcibly stretching the joint was carefully considered. The state of the parts removed justified the procedure adopted. There was active disease on the inner articular surface of the tibia, and necrosis of the head of this bone.

HOSPITAL FOR SICK CHILDREN.

CASES OF PARALYSIS AFTER DIPHTHERIA.

(Under the care of Dr SYDNEY RINGER.)

DIPHTHERITIC paralysis is both a rare and a strange form of disease, and much may be learned in several ways by studying its striking symptoms. It seems to affect chiefly those branches of motor nerves which pass through ganglia of the sympathetic, and thus we often have paralysis of the ciliary muscles, of the palate, and it is probable that the sudden death which now and then occurs in diphtheria is owing to implication of the cervical ganglia.

So far at least as we have observed, Voice does not suffer, although Articulation is affected in a curious and, moreover, in a very definite manner. It is to be particularly desired that in cases of paresis of the palate the kind of articulation should be carefully studied. When the palate is paralysed from other kinds of disease—*e.g.*, syphilis—the tongue and larynx often suffer as well, and then the phenomena are too complex. Such studies will enable us to analyse more clearly the various factors in the articulatory process, preparatory to the study of those defects of Speech which disease near the left corpus striatum produces.

When the palate is paralysed the nose cannot be separated from the throat, and therefore, instead of the explosive consonants *b*, *d*, and *g*, we hear the resonants *m*, *n*, *ng*. The words to ask the patient to utter are "rub," "head," and "egg." He will say "rum," "hen," and "eng." (See Donders' "Accommodation and Refraction of Eye," Syd. Soc. Ed., p. 603.) In the second of the following cases the child's defect of speech seems to have been owing to something more than mere local palsy of some of the articulatory mucles; but her general condition was so bad that the defect loses the significance it otherwise might have. In both these cases the age of the patient would render any careful analysis of the manner of talking impossible.

The recovery of the second patient after, if not from, the administration of strychnia, is worthy of attention.

The two children first came under notice when paralysed. They had both been ill a short time before with sore throat, and in both instances the Doctor in attendance stated the disease to be diphtheria.

Case 1.—*Diphtheria followed by Palsy—Death with Convulsions.*

Ellen P., 3 years of age, had diphtheria a month before she was brought to the Hospital. At the time of our seeing her, she walked with a very tottering gait, and her body, both while walking and standing, was curiously contorted. It was so greatly curved forwards as to make the belly very prominent, and the back at the lower dorsal region very concave. She sat with the head much thrown forwards, as if from muscular weakness. On standing or walking it fell as greatly backwards, and when the child was nursed and moved about it fell from side to side. Her voice had a strong nasal twang, like that of a person who has lost the palate. On using the spatula to open the mouth, the soft palate was seen to hang loosely down, and not to contract on irritation. Tonsils were rather enlarged. She could not drink without being choked. Her arms were weak, and she complained of much pain in her extremities when these were touched. One side of the body was not weaker than the other. There was no ptosis nor strabismus, and the pupils were of medium and equal size. Pulse 140, possibly thus quick from excitement.

Three days after her visit to the Hospital, she was taken with convulsions; each fit lasted about five minutes, and recurred frequently for about an hour, when she died.

Case 2.—*Palsy after Diphtheria—Great Defect of Speech—Treatment by Strychnia—Recovery.*

Minnie T., aged 3, had diphtheria eight weeks before she came under Dr. Ringer's care. The paralysis began four weeks after the diphtheria. There was first noticed some awkwardness in swallowing and weakness of her limbs, which continued to increase till her application at the Hospital. Her legs were always more affected than her arms, although these latter were so weakened as to make her unable to lift a cup to her mouth. This was the case with her when first seen by me. From the first she had drooping of the eyelids, but this was scarcely perceptible at the time of her visit to Hospital. For the week previous she had squinted "fearfully," so that at times the pupils were hidden. This squinting was especially marked when she looked at any object; sometimes it was very slight. Her sight and hearing had always been good, but her voice was very nasal. She had suffered from much difficulty in swallowing liquids, but could easily manage solids. Her appetite had been thoroughly excellent. Three weeks ago she became quite idiotic, and continued in this state for six or seven days, after which her mental condition much improved. But she was, when first seen, much unlike herself, had lost her cheerfulness and activity, appeared to be dull and unobservant, and had a stupid look. While in this idiotic state she lost the faculty of speech, and to questions put to her could only answer "Me, me." When first seen she walked very unsteadily, and kept her legs wide apart; she stooped greatly, and her head was thus thrust forward. She was put on one-sixtieth of a grain of strychnia three times a day. This treatment produced strong tetanic convulsion, sufficiently strong to throw her out of her chair. Her body was curved backwards; her jaws strongly clenched. She was at these times quite conscious. These fits lasted two minutes. They caused her much pain.

Were these fits produced by the named dose of strychnia, or was a stronger mixture compounded by the dispenser? The mother was of opinion that the medicine was dispensed wrongly, and this she concluded from the fact that when she some time later recurred to the medicine which was dispensed to her on another occasion when the same dose was ordered, the convulsions were very much milder.

A week after her attendance the child was very considerably improved—nay, the mother noticed a very decided change for the better in the child the day after she began the medicine. Whether this was due to the action of the strychnia or not, it is of course impossible to say. On her second visit she walked better, could swallow, and use her arms and legs better—indeed, could at that time walk without assistance, while at the time of her first visit she required to be held to prevent her falling.

She continued to improve. Her power to swallow grew greater; she could walk and use her arm much better. Her mind became clearer and more active, and she talked more rationally. She discontinued the strychnia on October 31, and yet on November 4 she had (at night only) slight tetanic convulsions.

In eighteen days her speech was natural. While she discontinued the strychnia she ceased to improve, but on returning to the strychnia recovery again progressed. This, at least, was the opinion of the mother. On this point Dr. Ringer felt unable to speak on his own authority, as, from the great number of out-patients at the Hospital, it is difficult to recollect the condition of each. On renewing the medicine the fits returned, but they were slight and of short duration.

Improvement daily increased, but not uninterruptedly. On some days she appeared to be much better than on others. This was especially the case with respect to her walking.

In thirty-five days she was as well as ever, with the exception of the squinting, which was still very bad. She was discharged in another month, but the squinting still remained.

The notes were made at the time of each visit.

EARLSWOOD ASYLUM. Dr. Langdon Down having resigned the appointment, which he has held for nearly ten years, of Medical Superintendent to the Earlswood Asylum, the officers and servants of that establishment have presented to him a very elegant silver tea and coffee service as a testimony of their "esteem and respect," and accompanied it with a suitable address.

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Medical Times and Gazette.

SATURDAY, APRIL 25, 1868.

THE HEALTH OFFICERS AND CHOLERA THEORIES.

On Saturday evening last the Metropolitan Medical Officers of Health had again under discussion the question whether the water supply of the East London Water Company had any relation to the cholera epidemic within their field of distribution in 1866.

In our issue of the 11th inst., we endeavoured to clear away some of the cobwebs that had been suffered to envelope the original hypothesis, and thereby sorely to perplex minds honestly desirous of dispassionately weighing the arguments for and against it. We trust our readers will be of opinion that, in pursuing the subject a step or two further, we are but doing out duty as public journalists where great public interests are involved, in striving to prevent misconception as to the character of the questions at issue. The dual aspect of the controversy needs to be borne in mind: there is the strictly scientific side which has reference to the probability and sufficiency of the evidence adduced to establish the theory of causation, and there is the consideration of the extent to which facts go in proof of the assertion that the London water consumers are as fully protected against impure water under the present arrangements and sources of supply as they have a right to expect.

On the first of these heads we have a few remarks to offer supplementary to what we have already advanced. The case against the water theory rests on a basis of "exceptions;" but those exceptions, as we have shown, are deprived of all force, because they depend upon a misapprehension of the distinctive characteristics of the *materies morbi* of cholera. They are also assailable on the ground that some of them are in direct contradiction to ascertained or admitted facts. Take, for example, the "exception" presented by the immunity of Stamford-hill, although, according to Dr. Letheby, it received precisely the same water (viz, from the Old Ford reservoirs) as was distributed in Poplar or Limehouse. If this assertion be true, then not only the Registrar-General's and Mr. Radcliffe's official reports on this particular are untrue, but the engineer of the East London Company stands convicted of ignorance or untruth also. For, if our readers will turn to the evidence given by Mr. Greaves before the Rivers Pollution Commission on December 10, 1866, they will find a series of questions (Nos. 376 to 404) put by the Commission for the purpose of ascertaining whether there was any peculiarity in the mode of supply which would account for the localisation of cholera in one part of the Company's district while the other part was comparatively free. After some "fencing" the admission was definitely and categorically made that there was a difference in the supply, the lower district, where cholera raged, being supplied "*probably from the lower source* [Old Ford]." It is as clear as noonday, from the evidence, that, dependent only on certain arrangements as to pumping, there were two sources of supply—one directly from the filter beds at Lea-bridge, the other from the storage reservoirs at Old Ford—and that Stamford-hill "probably" got its supply, at the time of the outbreak, from the first of these sources.

But, in point of fact, the immunity of Stamford-hill or North Woolwich may be accounted for, even on the supposition that they were both supplied from Old Ford, when it is remembered that they lie at the extremities of the Company's field, some four miles from the reservoirs, and that the choleraic matter, instead of being in a state of dilution, was only in suspension, and would have an increasing tendency to subside at the lower levels, bends and joints of the pipes, in proportion to the diminished force of its propulsion. Another alleged "exception" is the case of the London Hospital, of which Dr. Letheby says it is "in the heart of the cholera field. . . . There was an average resident population of 463 persons, and although they drank freely of the unfiltered East London water, yet there was not a case of illness among them. . . . Five hundred and seventy-four cases of cholera were treated in the Hospital, but they were all brought into it sick of the disease. A nurse who lived out of the Hospital died of the disease." We must be content with putting in juxtaposition with Dr. Letheby's statement the following quotation from a paper by Mr. Bathurst Dove in the "Clinical Lectures and Reports by the Medical and Surgical Staff of the London Hospital" (vol. iii., 1866):—

"Out of somewhat under 130 persons engaged in attending the cholera patients and washing the sheeting, etc., from the cholera wards, seven were attacked by cholera; *of these five died.* In addition, one patient, a child occupying a room adjoining one in which there were cholera cases, died of it."

We have not space for further comment on "exceptions," real or imaginary, but we venture to think that we have said enough to induce some who may have been led away by these ingenious fallacies to reconsider the matter under its real presentment.

Just one word, however, we would say upon the second aspect of the water theory to our Medical brethren who hold the posts of health officers.

The public looks to them as its properly constituted advisers in all matters where health is concerned, and not the least, therefore, in regard to its protection against so serious an evil as unwholesome water. Now the Legislature, in giving very large powers into the hands of the metropolitan water companies, has at the same time made it penal on them to supply unfiltered water to their consumers. By investigation first, and then by the admission of the company's officers, the public has been made fully aware that on more than one occasion the East London Water Company has thrown into its mains, and sent into the houses of the district, water taken from reservoirs receiving by free percolation the dirty noisome stream of the Lea Cut. It is known and admitted that "choleraic matter diffused through water is often a prolific source of disease," and it is altogether beside the mark to assume that, in regard to the East London epidemic, the acquittal of the water company follows because it cannot be proved to demonstration that the chain of evidence connecting the epidemic with the distribution of impure water is complete in every link.

The water theory does not, as is implied by its opponents, exclude the atmospheric theory; nor is it to be doubted that air charged with the germs of cholera may have played its part in the last, as in former epidemics, in the spread of the disease. But it is the peculiar localisation of the disease in East London that has to be accounted for in the case immediately before us, and the atmospheric theory plainly fails in that respect, whilst the water theory has a maximum of probabilities in its favour.

PUNISHMENT.

A FEW words on punishment in general may fitly accompany the papers on the existing state of punishment which are appearing in our columns.

Punishment, generally speaking, is pain or suffering inflicted for breach of law. The ends of punishment are the vindication of justice in the abstract, and the well-being of society.

That there is an abstract sense of justice, a feeling that there is a superior Being whose laws are violated, and that punishment follows of necessity, is a primary belief or instinct in human nature. All offence involves punishment. Some offences are purely personal, between a man and his Maker; others against the sentiment of society from the scandal they cause; whilst there is yet a third class against which punishment is denounced by society. But that punishment is not a mere artificial institution is proved by the fact that persons who commit offences which human laws cannot or do not take cognisance of, are driven by an innate sense of fitness, or primary belief, or instinct, called remorse, to punish themselves. We need not say what a large space in the moral history of man is filled by penance, or self-inflicted punishment for offences real or imaginary. It was under this inborn, instinctive, unanswerable sense of the nature and necessity of punishment that Dr. Johnson stood bareheaded in the market-place at Uttoxeter to do penance for his offence in refusing to accompany his poor old father to the market.

Society institutes punishments for some of the offences which it conceives injure its welfare. The character of such punishments and the details are amongst the most difficult and important practical problems that exist. But it is not difficult to show, in some respects, what punishment should be and what it should not be. It should be efficient, and, besides, merciful. Efficient punishment (using the word in its widest sense) makes society secure, reforms the offender, and deters others from following his example. It produces in the criminal contrition, confession, and a desire for reparation. The first causes abhorrence of crime; the second, an acknowledgment of guilt and of the justice of punishment; and the third, a determination to make good, so far as possible, the loss or evil caused by crime. When a criminal has undergone punishment cheerfully, has acknowledged his error, and done what he can to make amends, then we feel that he is absolved. Man has no more to say against him. Punishment fails of its ends if the offender be determined to go on in his sin, and if he make no reparation. And here it is that ordinary punishment fails.(a) The thief is not forced to work to replace what he has stolen. Punishment not effective is simply hurtful. It were better to let a man go than give a punishment that he despises, or even boasts of undergoing like a man, or that will not deter others.

Punishment may inflict pain on mind or body, or both—on the mind, by the shame, the restriction of liberty, and by fines; on the body by hunger, fatigue, cold, or injury as stripes. Mental suffering is the more severe, but is not felt if there be no mind. A fine in money is no punishment to the rich, and confinement in a clean gaol, with adequate food, is no punishment to the shameless or case-hardened vagrant. Punishments are apt to be made either imbecile or unduly severe by sentimentalism. The experience of ages has shown that the lash is a real punishment, and a ruffian may flinch from a wheal of the skin who would laugh at abridgment of liberty, who cannot feel shame, and has no goods to be mulcted. Sentimentalism objects to the birch; but it were more merciful to birch a school-boy's posteriors than to lame his hand by a cane, to injure his health by low diet and confinement, or to make him write long "impositions" to the loss of temper and health.

Punishment should be merciful. It should not be vindictive, in the sense of giving pain to gratify love of cruelty; it should not interfere with the criminal's power of earning a living in future—should not inflict phthisis for petty larceny—bearing in mind that no cruel or vindictive punishment can ever produce contrition: on the contrary, the criminal is discharged sour, unrepentant, and dogged.

Punishment should not be tedious; should not be expensive, so as to be a burden on the innocent community; the labour of the prisoners should not be wasted (as with the treadmill), as if labour and time were not too sacred to be thrown away; should not demoralise the officers whose duty it is to carry it out. We have shown long ago, after Wordsworth, that the punishment of death is less unmerciful than the alternative of perpetual imprisonment, silence, darkness, starvation, pain, and rigour, proposed by the so-called humanitarians.

All severe punishment touches health and life. The infliction of it cannot be easy, so as to hit the mean between imbecility and savagery, between costliness and squalor, over-indulgence and over-rigour. In any observations made in these pages by our contributor, he will play the part of *a nicus curiæ*, and not that of the getter-up of sensational horrors.

(a) See the "Evils of England," by a Physician.

THE WEEK.

TOPICS OF THE DAY.

THE Medical Practitioners (Colonies) Bill, now before the House of Lords, certainly demands the attention of the General Medical Council and the Medical corporations. It is nothing less than an attack upon those rights and privileges of the registered Medical Practitioners of the British Empire, which were secured to them by the Act of 1858. By making their right to practise in the colonies entirely subject to enactments by colonial legislatures, persons whose names are upon the Imperial Register, and who wish to practise in New Zealand, Canada, or Australia, may be made to undergo the annoyance of fresh examinations, as well as be mulcted in fresh fees. A Practitioner who may have taken the highest Medical or Surgical distinctions in this country, and who has paid the not inconsiderable sum required for registration under the idea that it gives him a right to practise in any part of her Majesty's dominions, on arriving in a populous colony will find himself subject to pains and penalties if he presume, without the sanction of the local authorities, to feel a pulse or take a fee. In our view, the most objectionable part of the present Bill is the clause which seems to us only capable of bearing a retrospective interpretation. It enacts that "the said Medical Act (of 1858) shall be construed as if this enactment (the Bill of 1868) had originally been contained in the said thirty-first section, in place of the enactment hereby repealed." If this be not intended to infringe the rights of already registered Practitioners, these rights should be distinctly and clearly reserved. We can hardly think that it is the intention of the Colonial Office to commit such a palpable injustice; and, at any rate, we hope that the governing bodies of our Profession will see that some clause preserving the rights of the registered be added. There will be ample opportunity for introducing such a clause when the Bill is in Committee. The chief argument which will weigh at home in favour of the new Bill is that the General Medical Council can no longer be expected to entertain the question of registering, without further examination, persons possessed of colonial diplomas. But this is an argument which does not in any way affect the question of the justice of making the Bill retrospective. At least it must not apply to any persons whose names are on the Imperial Register when it receives the Royal Assent. We are glad to learn that the Royal College of Surgeons have already been in communication with the Colonial Office on the subject. But we think it incumbent on the General Medical Council to take immediate action to

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preserve the rights of the great body of Medical men who are now registered.

The subjects of hæmorrhage from the capillaries and of the mechanism of suppuration have recently received considerable light from the microscopical observations of a German observer, Dr. Cöhnheim. By bringing frogs under the influence of woorali poison, and then tying the femoral vein, he has been enabled to watch the phenomena of capillary congestion and the resulting ecchymosis taking place in the transparent tissue of the frog's web. The remarkable point in his observations is, that he has seen the red blood-corpuscles making their way through the walls of the capillaries, apparently without rupture, into the surrounding tissues. In like manner, in the case of inflammatory action, he has seen the pale corpuscle becoming adherent to the wall of the vein, making its way through the wall, and appearing on the outside as the pus-corpuscle. Not the least interesting portion of a very capital meeting of the Pathological Society, on Tuesday, was that occupied by Dr. Charlton Bastian, who gave an account of Cöhnheim's observations, and exhibited two frogs in the webs of which the phenomena of the passage of the red-corpuscles were apparent. Dr. Bastian describes the process as one of adherence of the corpuscle to the capillary wall, then the protrusion of a small tag or process of the corpuscle through the wall, which is followed by a larger and larger portion of the corpuscle, until the whole has escaped. From his observations he is inclined to believe that the process is due to the properties or endowments of the corpuscle, rather than to any merely mechanical force. At the next meeting he intends to exhibit the phenomena of the passage of the pale corpuscle. We hope, before long, to return at greater length to this subject of paramount interest to physiologists and pathologists. At the same meeting Dr. Sanderson read a report on a specimen of the cholera fungus described by Professor Hallier, which had been cultivated on an acid surface—that of a cut lemon—and forwarded to this country by Dr. Thomé. As far as we could learn, this fungus differed in no respect from the ordinary forms of *penicillium*.

In our last number we drew attention to the claims of the Society for the Relief of Widows and Orphans of Medical Men. The fact that on Wednesday, April 29, the seventy-ninth anniversary of the Society will be celebrated at Willis's Rooms, under the presidency of Dr. Burrows, permits us again to press on the notice of the Profession the benefits which this, the oldest, the most tried, and, in some respects at least, the most useful of our Medical charities, has afforded to three generations of recipients. We do hope that the meeting will not only be a very great success as a festivity, but that it will be a means of bringing a large number of fresh subscribers to the funds. We have heard that the Society is not in so good a position as at one time it was; that it has fewer supporters among the more fortunate of the Profession; and that a larger proportion join it with an expectation that at some future time their families may profit by its funds. The number of claimants has increased in proportion to the number of subscribers. This certainly is not a healthy state of things. Such a Society can only exist by receiving the support of all. Whilst it is an insurance society, it is also a charitable institution of the highest class, for it encourages, instead of superseding, the exercise of foresight and prudence. All Medical men should subscribe to it—the richer for the sake of the poorer, the poorer for the sake of the certain provision they are making in case of need for their wives and families.

The onslaught lately made by the *Times* on the pecuniary management of the Children's Hospital in Great Ormond-street has been met by a temperate letter from Dr. West, wherein he defends the executive of the Hospital, and gives a reasonable account of the expenditure of its funds. The comparison made by the *Times* of the Ophthalmic Hospital with the Children's Hospital was, to say the least, an unfortunate one. Nothing can be more dissimilar than the requirements, in the way of nursing and attendance, of the inmates of the two institutions. The large staff of nurses required by sick children must always, *cæteris paribus*, raise the cost of treating them to a level with, if not above, that of treating adults. By taking the total expenditure of the Hospital, including printing, advertising, annual dinner, and repairs, and dividing this by its number of beds, it is found that the cost of the latter has been £60 per bed, a result which, the *Times* maintains, demands explanation. Dr. West answers that if this be large, at a Hospital where the staff of nurses is much smaller (St. Mary's) each bed costs £58 3s. per annum. We think that the *Times* has been unfortunate in its selection of the Children's Hospital for attack, for it is an exceptional institution with exceptional expenses. But if, during the dull season of the Easter holidays, the whole system by which Hospitals without endowments and other "charities" are supported had been criticised, we think that the public might have been considerable gainers. The annual dinners, the large percentages allowed to collectors, and the whole machinery for extracting money from buttoned pockets, are a satire on the very word charity. They seem invented to keep it as an etymological example of how far a thing may differ from the original signification of the name it bears.

The rejection in the House of Commons, by a majority of 127 to 23, of Mr. Gilpin's resolution in favour of the abolition of capital punishment, has, we may suppose, settled this question for a time. The Bill now in Committee of the House will do away with the argument against capital punishment drawn from the demoralising influence of such spectacles. At the same time it is not improbable that the mystery which will attend the comparatively private execution of criminals may have a deterrent effect on some minds of the criminal class. At all events, it will be impossible for the mob to elevate the hardihood of the culprit into heroism. For our parts, we think that public morality would gain if the stories of great crimes were not permitted publication, and if not only the execution, but also the trial, of great criminals were far less public than has hitherto been the case. The present Bill enacts that in the case of an execution the fact of death shall be certified by a Surgeon, and that a coroner's inquest shall be held on the body.

Mr. Burney Yeo, M.B., has been appointed to the lectureship on Animal Physiology at King's College vacated by Dr. John Harley.

The subject of vaccino-syphilis is to be discussed at the next meeting of the Medical Society on Monday next. A paper on the subject is to be read by Mr. Henry Lee, and we believe that our chief metropolitan authorities on vaccination will be invited to attend.

At the time of our writing an action is going on in the Vice-Chancellor's Court, which, as affording an instance of credulity, is unsurpassed by the trials of any of the witches of the Tudor and Stuart times. A rich widow lady, Mrs. Lyon, who was the daughter of a tradesman, and appears to have been blessed with a great deal of money, but a correspondingly small proportion of other endowments, was introduced to Home, the notorious medium, and, in compliance with directions supposed to be received from her deceased husband, she presented Home with sums of £30, £50, £24,000 stock, £6000 stock as a birthday present; then made a will in his favour, giving him all her property absolutely on condition that he should take the name and arms of Lyon, and, in addition, assigned to him a mortgage security for £30,000. After a time, however, she began to distrust her adopted son, and to suspect that she had been duped. She was advised to go to law to recover her property; but she first consulted another medium, the daughter of one Mrs. Berry, by whom she was again introduced to her deceased husband's

spirit. But this time the spirit declared that Home was an impostor, and advised her to go to law with him at once. The upshot of the matter was that Mrs. Lyon obtained a writ *ne exeat regno* against Mr. Home, who thereupon was arrested and lodged in Whitecross-street Prison; and the plaintiff, Mrs. Lyon, filed a bill in Chancery, praying a declaration that the property had been obtained from her fraudulently and by undue means, and that the transfer of stock and the assignment of the mortgage for £30,000 might be set aside. As we have said, the case is not concluded, the defendant's answer having yet to be heard. Mr. S. C. Hall appears in the transaction in the character of Mr. Home's friend. Mr. Home himself will have a grand opportunity in the witness-box, but the air of an English court of justice, we suspect, will prove unfavourable to the exercise of his ghostly accomplishments.

The University of Cambridge is advised by the Board of Medical Studies to affix a different professional and scientific value to the degrees of M.B. and M.D. by introducing a special examination for the latter. In doing this the Board expressly states the intention to be to entitle the Doctor of Medicine to hold "legitimately and substantially a position in the Profession superior to that of the Bachelor of Medicine." The proposed examination consists of writing an extempore essay on some subject of physiology, pathology, practice of Medicine or state Medicine, and in a *vivâ voce* discussion and examination on the same subjects.

Her Majesty the Queen has been graciously pleased to signify her intention of laying the first stone of the new St. Thomas's Hospital on Wednesday, May 13, at half-past eleven o'clock.

We are glad to see that the amalgamation of the Queen's and Sydenham Colleges, Birmingham, is now finally completed, and the list of the Professors and Lecturers published. We hope that a new era of usefulness will dawn on the Birmingham School of Medicine. The Medical Profession of Birmingham is just now taking the lead in Medical politics and we hope that the science of Medicine will find in Birmingham as congenial a soil as Medical reform seems to have obtained.

We are glad to be able to contradict the report that Professor Huxley has resigned his Professorship at the Royal College of Surgeons. A visit to the museum of that institution will well repay, were it only for an examination of the beautiful specimens of Molluscoids, Ostracean bivalves, Cephalopods, Coleoptera, Crustacea, and other Invertebrates, which Mr. Flower has arranged and displayed in so perfect a manner.

The question of what is meant by "usual Medical attendant" is to undergo legal elucidation. In the case of Finch *v.* the Norwich Insurance Company, the defendants have refused payment of a life policy of £100 belonging to a schoolmistress, deceased, on the ground that the representations made to obtain the policy were untrue. Among the questions submitted to the assured was—Who is your usual Medical attendant? and have you had any other Medical attendant? To the first question the answer given was—"Never required any," and the second was left unanswered. The Company afterwards learned that three months before she insured her life the deceased had suffered from an attack of small-pox, during which she had been attended by a Medical man, and subsequently from a bilious fever, for which she had obtained the services of another Medical man. The case was tried at Stafford, and decided in the defendants' favour; but a rule to set aside the verdict and allow a new trial has been granted by the Court of Exchequer, on the point raised by counsel that calling in a Medical man for a specific attack does not constitute him the "usual Medical attendant," and that, as there was no attempt at concealment of the fact that deceased had undergone small-pox, the omission was immaterial.

A letter has been received in Edinburgh from Dr. Livingstone, the latest date of which is February 1, 1867. Bemba or Libemba is the place at which he then was. He had undergone much, and describes the bones of his party as "nearly sticking through, as if they would burst the skin." He had been robbed of his medicine-chest, a loss which, he says, "fell on my heart like a sentence of death by fever, as was the case with poor Bishop Mackenzie." However, the general tone of his letter showed little despondency. He tells how the Joanna men "skedaddled," frightened out of their wits. When he wrote he believed himself to be in 10 deg. 10 min. south lat., and long. 31 deg. 50 min. 2 sec.

A "MEMBER" FOR THE QUEEN'S UNIVERSITY.

THE graduates of the Queen's University in Ireland have prepared a petition praying that the new Irish Reform Bill may contain provision for the representation of the University in Parliament. The petition is being largely signed by the graduates and other members of Convocation. Much as has been said in disparagement of this centre of non-sectarian education, it is remarkable that, during the eighteen years of existence it has enjoyed, it has sent out nearly a thousand graduates in arts, Medicine, and law. The petition lays considerable stress on this fact, and contends that so large and enlightened a constituency should not be unrepresented in the House of Commons, especially as it is the fact that attacks upon the Irish University have been chiefly made in Parliament when its cause was absolutely undefended. The circumstance that the Liberal Government proposed to admit the University to Parliamentary representation is also urged by the graduates as an important point. It is doubtless one which will have its own weight with the Ministry.

POOR-LAW MEDICAL OFFICERS.

THE following circular letter has been issued by the Poor-law Board in regard to the employment of unqualified Medical assistants. It in no way alters or modifies the existing regulations, but reminds the guardians of their duties in enforcing the present rules. It should be observed that the assistant need only be "legally qualified" to practise Medicine or Surgery, and need not possess the double qualification necessary for a permanent principal.

"The attention of the Poor-law Board has been directed to a practice which is alleged to prevail of the employment by Medical officers of unqualified assistants to attend the sick poor.

"Every Medical officer, as the guardians are aware, is required by the regulations already in force (see Article 199 of the General Consolidated Order) to visit and attend personally, as far as may be practicable, the poor persons entrusted to his care, and is responsible for his attendance on them.

"A subsequent Article (No. 200) of the same Order provides for the manner in which any disability on the part of a Medical officer to perform his duties personally is to be supplied.

"This Article requires the Medical officer, as soon as may be after his appointment, to name to the guardians some legally qualified Medical Practitioner, to whom application for medicines or attendance may be made in the case of his absence from home or other hindrance to his personal attendance, and the name and residence of every Medical Practitioner so named is to be forwarded by the clerk to each relieving officer, and to the overseers of every parish in the district of such Medical officer.

"In order to insure efficient Medical aid to the sick poor, the regulations in force require all Medical officers to possess legal qualifications to practise Medicine and Surgery, and it is obvious that if such Medical officers are permitted to delegate their duties to unqualified assistants, the object of the regulations is defeated.

"The Board feel it necessary, therefore, to request the co-operation of Boards of Guardians in discouraging altogether the employment of unqualified assistants. The Board have no desire, however, to deprive the Medical officers of the aid

of legally qualified assistants, and they therefore desire to point out that the Medical Officer may nominate his assistant, when duly qualified, to act as his substitute under the circumstances mentioned in Article 20 of the General Consolidated Order, to which the Board have already directed the attention of the guardians."

CONTAGIOUS DISEASES AT ALDERSHOT.

An increase in the number of cases in the military Hospitals generally occurs on the arrival of a regiment from an unprotected station. There was a remarkable instance of this within the last few weeks on the arrival of the 57th Regiment from Manchester; but the cases, although new in the camp, were not so in the regiment, the disease having been contracted in Manchester. It is fortunate that so many men should have presented themselves at the Hospital on arrival, and have been placed under treatment before having had an opportunity of spreading their malady among the other classes in camp. We should be unwilling to hint at the advisability or necessity of re-establishing the periodical examination of soldiers by Medical officers for the detection of enthetic diseases as a regulation of the service, but it cannot be denied, if it be desired to give the Contagious Diseases Act fair play, that such examination, as an exceptional instance, on the transfer of troops from an unprotected to a protected station, either at home or in the colonies, would be highly desirable, and, in fact, the only plan which could prevent the importation of fresh foci of disease. If to be stamped out at all, or even reduced to smouldering embers, the utmost vigilance must be exercised to prevent any chance of fresh outbreaks of disease. Medical officers themselves can hardly fail to admit that the above suggestion presents the only thoroughly practical plan of prevention.

ESCAPED LUNATICS.

The final decision with regard to the Hackney-wick affair is tolerably satisfactory, though the question of a suicide's disposing of his body by putting it into a cupboard may afford a point for Medico-legal discussion. There is one thing, however, which the details of the case suggest, and that is, that some provision should be made with regard to the protection of the public from escaped lunatics. The man Heaseman was loose upon London for some considerable time, and might have taken the lives of many people who were thrown into contact with him. Providentially, it was otherwise, but it must be remembered that for the result no thanks are due to the authorities of the asylum. Here was an unrestrained lunatic, without fear of legal penalty or moral instinct to influence him, living and moving among us for we know not exactly how long. How many desperate crimes this poor fellow might have committed had he not put an end to himself is a problem for the imagination. It happens that we are safe so far as he is concerned; but we should like to know how many other "escaped lunatics" are travelling with us on our railways or wandering in our streets. It is impossible to say so long as the present state of things exists. The remedy, however, is tolerably simple. When a lunatic escapes from an asylum, his description and photograph should be published, and the public thus placed upon their guard. The sentimental objection of "family disclosures" should not stand in the way of so much needed a reform.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

The Myriapoda and the Insecta.

The centipedes and millipedes are familiar examples of the class Myriapoda. In all these members of this class we find a distinct head, succeeded by a number of perfectly distinct and definite somites, each having its own special pair of appendages. This fact alone separates them from all arthropods with one pair of antennæ. They are separated from the Crustacea by the nature of their respiratory organs. These are tracheæ, the lining membrane of which breaks up into a spiral thread. Speaking generally, the characters of this class are intermediate between those of insects and Crustacea. Each of the segments has a dorsal and sternal portion joined laterally by a membrane, and the limbs or appendages are implanted in the sides of the sternal portions. The head presents two distinct divisions, an anterior and a posterior. They possess a single pair of delicately jointed antennæ, a labrum and lower lip on the under surface of the head, one pair of mandibles without palpi, and a pair of maxillæ. Behind the basilar segment of the head are two great incurved claws; these are modified thoracic appendages. There is nothing novel in the arrangement of their internal organs. The alimentary canal extends as a simple tube from the mouth to the anal aperture. The heart is more developed than in insects, and is only comparable to that of the Arachnida. In Scolopendra there is a vast heart, having a chamber for nearly every segment, each with two valvular slits, one on each side. The most anterior and posterior chambers end respectively in arterial trunks. The respiratory organs consist, as has already been stated, of tracheæ, which open externally by stigmata. Each stigma is a rounded aperture leading into a branching tube, which ramifying gets smaller and smaller, and is at length lost in the tissues of the body. The air, therefore, is conveyed to almost the ultimate tissues of the body. These tracheæ differ from those of Arachnida in branching dichotomously, and in having their chitinous lining thickened like the spiral vessels of plants. The method of respiration is substantially the same as in Arachnida—viz., by the contraction of the muscles attached to the dorsal and ventral aspects of the body. The *nervous system* is in the simplest condition found in any of the Arthropoda, consisting of a simple chain of ganglia, one pair to each somite.

The reproductive organs consist of great tubes which open by apertures on the surface of the body. This class is divided into two groups, which differ in the position of the reproductive apertures—1, the *Chilopoda*, which have the generative opening at the end of the body; and 2, the *Chilognatha*, which have them at the anterior part of the body, on the fourth or fifth segment behind the head. The young are developed within the eggs.

The next class, that of the *Insecta*, is the largest division of the animal kingdom: it exceeds in number all the rest. The number of species is not less than 150,000. There are six or seven species of insect to each species of plant. These animals are capable of living under the most diversified conditions, but they are almost always associated with vegetables. They are generally terrestrial; a few species are aquatic. They present a remarkable uniformity of organisation, so that there is very little difficulty in assigning insects to their proper place. In no insect are there ever more than sixteen somites found behind the mouth, and, reckoning four in front of the mouth, it may be stated that no insect possesses more than twenty somites. A certain hypothetical arrangement is needed to account for the somites in front of the mouth. As there is only one pair of antennæ, one pair is regarded as suppressed, and the eyes, though sessile, are reckoned as homologous with the stalked eyes of the Crustacea. There are always three pairs of thoracic limbs (except in some parasitic forms), which correspond with the anterior three pairs of thoracic members of the Crustacea. They never possess abdominal limbs in the proper sense. Certain insects in the larval condition have so-called *false* legs, but these disappear in the adult. *Respiration* is always carried on by means of tracheæ. It is, however, doubtful if they invariably exist; they may possibly be absent in one or two of the lowest forms. The lining membrane of these tracheæ breaks up into a spiral thread.

A study of the external skeleton shows it to be made up of a laminated cuticular substance, composed of chitin, and hardened in many cases with carbonate of lime. In many insects there is a sort of false internal skeleton, but it is really formed of processes from the external skeleton. Commonly it consists of four processes, which are ingrowths from the inner side of the chitinous membrane of the thorax, serving as a support for the nervous system. Or you may meet with a so-called ento-cranial skeleton, which is an ingrowth of the external integument of the head in the form of an arch between the brain and the gullet. The body is divided into three regions—head, thorax, and abdomen. But this is not the case in *all* insects; in Aphis, for example, the thorax and abdomen pass continuously one into the other. As to the structure of the head itself, *first*, upon what we might call the forehead, there is a *suture* which bifurcates into two branches, and this triradiate epicranial suture divides the head into three portions. This is the remains of an embryonic structure of some importance. Taking the head of the common cockroach as a type, we observe another important structure in front; this is a broad articulated upper lip or *labrum* homologous with the labrum of the Crustacea. At the posterior part of the skull, behind the aperture of the mouth, there is another organ—the lower lip or *labium*, furnished with two little feelers, one on each side. In considering the appendages to the head, we shall be able to trace the homology between the parts of the head of insects and those of the head of Crustacea. We must, however, remember that three pairs of appendages are absent, and that all the top of the insect's head has nothing to do with the *tergal* surface, but that it is the *sternal* surface of the ophthalmic and antennary somites turned upwards and backwards. The *appendages* to the head consist of the *eyes*, which vary much in character, being sometimes compound, sometimes simple, and sometimes both together; below and in front of the eyes is a pair of jointed antennæ. The next three pairs are differentiated precisely as in the Crustacea. First come the powerful *mandibles*, moving sideways, and having sharp teeth; they differ from the mandibles of most crustacea in the absence of palps. Behind these are two other organs, each having a small jointed appendage at the side; the terminal portion of this organ is sharp and cutting, and has a jointed palp. These correspond with the first maxillæ of the Crustacea. Behind this is the under-lip or *labium*. This organ, morphologically speaking, has nothing to do with a lip; it is really formed by the coalescence of a pair of jaws. The head is therefore constructed on precisely the same plan as in the Crustacea.

The character of the mouth is of great importance systematically, as it presents several different types of structure, and the classification of insects is based on these. The form of the mouth is especially modified according to the functions it has to perform. 1st, there is the *masticating* type, seen in beetles; 2nd, the *semisuctorial*, seen in bees; 3rd, the *suctorial*, found in butterflies, ordinary flies, and bugs; and 4th, another type of *suctorial* mouth, met with in fleas and lice. Entomologists are greatly indebted to Savigny's beautiful essay on the homologies of this wonderfully modified insect mouth.

The *masticating* mouth consists of a labrum, a pair of mandibles, a pair of maxillæ, and a labium. Now, in all the other forms of mouth we find strictly the same parts, but variously modified according to the functions they have to perform, This *chewing* mouth is found in the Coleoptera, Orthoptera, and Neuroptera.

In the bees the mouth is extremely different; the labrum is large and easily distinguishable; immediately behind it there is a pair of organs much larger proportionally than in the cockroach, and they are spoon-shaped. They cease to be grinding appendages, and are converted into convenient spatulæ, useful for modelling the wax in which these animals work; they are homologous with the mandibles. Behind these there is a still greater modification of organs. The bee, besides spatulæ for modelling the wax, needs a knife to trim and square it, and we consequently find in this position two organs like clasp-knives, sharp along their inner edges; these are the maxillæ delicately produced and converted into cutting blades. Behind all these appendages there may be seen, when the bee hovers over a flower, a long produced organ passing from the under part of the head. It is ordinarily bent up under the neck, just like a carriage-step. This is the *labium* immensely produced. It can be still more prolonged by the extrusion of a long tongue from its under surface. Attached to its sides are two labial palpi. This is the so-called *semi-suctorial* mouth, as it possesses both cutting and suctorial organs. Speaking strictly, this mouth is really suctorial, for there is no aperture in the mouth large enough for receiving anything but fluids or substances in a very reduced state. The mouth is limited to a small point, which must be purely suctorial.

The *truly suctorial* mouth is found in the butterflies; it is entirely different, and on a different plan from the preceding, and its sucking apparatus is a modification of a different organ. Rolled up under the head, in these insects, is a long slender proboscis. The labrum, the mandibles, and the labium in the butterfly are all reduced to mere scales; but there are two very large labial palpi. This proboscis, then, is developed entirely at the expense of the maxillæ; it is formed of two long spiral filaments, joined together at the base. But a large number of suctorial insects, such as the gnats and flies, live at the expense of other animals, whose juices they suck, and they therefore need some piercing apparatus to puncture the skin of these animals. We have, therefore, two types of suctorial mouths. A definite modification of this kind is presented by the Diptera. In the mosquito and ordinary gnat the *labrum* is produced into a long sharp spine; the mandibles and maxillæ are also long sharp spines; but in these, as in all Diptera, the maxillæ are provided with palpi. The *labium* is converted into a more or less hard sheath-like organ, in which three sharp lancets are contained. This is the gnat type of mouth. In flies, as in the common house fly, we reach by a gradual degradation the most abnormal form of mouth in the whole class of the Insecta. It is a large tube expanding at the end into a proboscis; its structure is very puzzling. It is in front of the aperture of the mouth, and consists of a single sharpish spine, enclosed in a pair of horny bands; these are probably homologous to the maxillæ, and the whole proboscis is simply a highly developed labrum. The next form of mouth is found in certain parasitic insects which feed on the juices of plants, and for this purpose bore holes in the bark. In these we have a new type of suctorial mouth. In Aphis, for example, we find a jointed fleshy sheath, containing five delicate setæ. The sheath is thrown back, and the setæ are driven into the bark. One of these setæ represents the labrum, two on each side of this the mandibles, and two behind them the maxillæ, and behind this the modified labium. This kind of mouth is found in the Hemiptera. Closely allied to the Hemiptera and the Diptera are the fleas; but there are some curious points of difference. The peculiarity of the mouth of the flea is that it makes its wound with the *labium*, the palpi of which are modified into two sharp knife-like bodies, while the mandibles and labrum are converted into a suctorial tube. The last form of mouth to be noticed is that of the lice. From all that has yet been observed, the mouth in the ordinary condition is a rounded aperture containing a proboscis, which can be protruded; it is also furnished with a series of recurved hooks, by which it can adhere to the surface of the body on which it is parasitic. In the interior of the mouth there is a little spine. The parts of this mouth are of difficult import. It is the only exception to the law that all the modifications of the mouth are traceable to the same elements. In a very few insects, such as the Ephemera, the parts of the mouth are altogether lost.

FROM ABROAD.—ABUSE OF ATROPIA COLLYRIA—THE MEDICAL PROFESSION IN THE UNITED STATES.

THE veteran ophthalmologist, M. Sichel, in last week's *Gazette Médicale*, protests against the indiscriminate employment of atropia as a collyrium, now so much in vogue, and has a few words to say about the erroneous modes of employing collyria in general. He preludes his observations by a remark the justice of which every one will acknowledge:—

"In Medicine, as in everything else, fashion exercises its empire. When a medicine comes into vogue, its employment, efficacious as it may be in a certain number of pathological conditions and under well-defined circumstances, is gradually extended to a whole crowd of affections for which it is neither necessary nor even useful. Its use, thus generalised, becomes a blind routine, to the great detriment of the rational therapeutics of disease. How much has been said and written against crinolines and the other absurdities of fashion! And so, in Medicine, it is desirable that a voice should from time to time be raised against the abuses of a reigning fashion and a blind and mischievous routine. May it not always prove a voice crying in the desert!"

Applying these observations to the neutral sulphate of atropia, M. Sichel observes that while it is the most valuable agent for the production of the dilatation of the pupil, it is constantly employed in affections of the eye in which dilatation is either not required or is only of secondary importance, and in which it may prove not only insufficient as a means of cure, but even useless or mischievous as an auxiliary. Thus employed, as it often is in iritis, unaccompanied by an antiphlogistic and antiplastic treatment, if this is severe, a damaged eye may easily be the result. Its employment here is at all events intelligible, although erroneous, but it is difficult to understand upon what principle it is used in pustular or granular conjunctivitis, or in interstitial or vascular keratitis, even accompanied with pannus. The ill-consequences of such gross empiricism are indeed constantly met with; for not only does it prove inefficacious, but it may even add to the irritation already present. In some individuals, indeed, even in weak doses, atropia excites irritation, although its use is indicated, and in such M. Sichel has found very useful a collyrium composed of $\frac{1}{100}$th part of the sulphate to 10 parts water and 5 parts glycerine, using it at first only once a day, and bathing the eyes for five or ten minutes after with cold water.

Another still more important point is, that poisoning may be induced by the indiscriminate use of too strong collyria, and by the improper mode of their application. Thus collyria are constantly ordered with 5 centigrammes of the alkaloid to 10 or 15 grammes of water; while a long experience has convinced M. Sichel that where transitory dilatation of the pupil is wanted for the purpose of ophthalmoscopic examination or the temporary improvement of vision in persons with incomplete cataract, a solution of 1 centigramme in 10 grammes of fluid is quite sufficient, while, where a more durable or energetic action is required, 2 centigrammes may be employed. In some rare cases, as in very extensive posterior synechia or partial obliteration of the pupil, we may go as high as 3 centigrammes; but a dose beyond this is never required, and may often prove dangerous. The poisonous effects of atropia do not in general arise from the absorption of this substance by the anterior surface of the globe, although in certain idiosyncrasies this does take place very readily, and especially when the collyrium is too frequently applied. The poisonous effects, however, generally result from the bad mode of application of collyria commonly employed. The plan which used formerly to be so generally adopted is at once the most efficacious and the safest. It consists in applying the collyrium between the eyelids at the external angle by means of a soft pencil, and directing the patient to keep the eyelids closed for some minutes. In this way, the tears which are secreted assist in diffusing the collyrium over the anterior surface while the eyelids are closed, and none, or very little, of it is absorbed by the lachrymal puncta. With this precaution, even strong solutions of atropia do not produce poisonous effects, especially if the patient be directed to bend the head slightly backwards and towards the temple. In the usual mode of applying collyria at the present day, much of the collyrium is lost, and that which remains in the eye is collected at the inner angle near the lachrymal points, and, in place of acting uniformly upon the ocular surface, the fluid passes into the nasal fossæ, and thence into the œsophagus. In this way the application is rendered at once inefficient, dangerous, and, by reason of the unnecessary quantities employed, expensive.

We extract a few passages from an article in a recent number of the *Boston Journal* entitled "The Present Position of the Medical Profession":—

"The position which the Medical Profession of our country occupies to-day in the eyes of the public is far inferior and less assured than it was fifty years ago. The Doctor of former days was a power in the community. His opinions were indisputable, his *dicta* were laws. To doubt his knowledge, to disbelieve his statements, or to disobey his injunctions were heresies unknown. His very title smacked of learning and authority. A Doctor, or teacher in Medicine, he was to all, as his name implied. Once established, by the slow and regular law of succession, in practice in the place of his choice, there he remained, a useful and a much-used fixture, until he died. No one thought of changing his family Physician any more than he would change his church. No one thought of doubting his Doctor any more than he would doubt his creed. How absolutely changed is all this now! Greedy quacks, tricky hospital stewards home from the war, professors with no profession save plunder, peripatetic panderers to the vilest passions, violators of the Hippocratic oath, patent medicine puffers with lying clerical certificates, nostrum vendors, the sole value of whose preparations is the proprietary stamp which they bear, poisoners of infancy under the guise of Venerable Nurses and Mothers' Guides, divide the field with the learned Pathist, whose pathy is a nonentity, and the latest Teutonic importation of mysticism and emptiness. Nor is this the worst. For in the eyes of a great part of the community they stand on the same level with the regular Profession. One Doctor is as good as another, and he who pleases may assume the title with little study, or with none at all. Neither can we wonder much that this is so, since the public have no data on which to base their judgment. . . . . Such, unfortunately, being the present aspect of affairs in our Profession, can any remedy be found? To seek the cause points the remedy; and the cause, unfortunately, can be found, in great part, in ourselves—in our indifference to abuses which have crept gradually in among us—and in the low standard of Medical Education which the competition of starveling and rival schools has fostered in this country. A diminished faith in the efficacy of drugs, which has led to the expectant system of Medicine, has been held up by some of our own teachers to the world as a reason for distrusting all Medical treatment. On the other hand, an overweening confidence in, and rash use of, potent remedies has been followed by the reaction of infinitesimal doses in the public mind. Too great laxity has been allowed to charlatans from among our own ranks, who have been permitted to remain under the shadow of that authority and respect which companionship in good society secures. So many Physicians have been turned loose to prey upon the public with a mere smattering of Medical knowledge, that they have necessarily lowered our standing in the community. Add to all this that transitional state which society has undergone in this country during the last half-century, and we have said enough. So far as a remedy can now avail, it rests mainly with ourselves. To close our ranks firmly against pretenders, to practise, as we believe, with a rational faith in our art, and, above all, to steadily raise the standard of Medical Education, are the only ways to recover the position which our fathers held and which we should regain."

PARLIAMENTARY.—CAPITAL PUNISHMENT.

On Tuesday, in the House of Commons, the House went into Committee on the Capital Punishment within Prisons Bill, and rejected, by a majority of 127 to 23, a resolution in favour of the total abolition of capital punishment, moved by Mr. Gilpin. Mr. Mill advocated with great force the necessity

and mercy of capital punishment in cases of aggravated murder. It was the least cruel mode of deterring from the crime, and far more merciful than imprisonment for life.

EXCEPTIONS TO DR. RICHARDSON'S PROPOSITIONS ON FORCE IN THE ANIMAL BODY.

By W. H. BROADBENT, M.D.

1. In Proposition 1 (see *Medical Times and Gazette*, March 21, p. 324) the nervous system is spoken of as a centre for attraction of force. If force is to be understood as some mode of motion of matter, it is difficult to attach a definite meaning to the term attraction of force. Attraction, in physical and chemical science, refers to matter, not to force. Sometimes the metals are said to attract electricity; a lightning conductor, for example, is said to attract the lightning, but it is much in the same sense as a hole in the bottom of a tub of water attracts the contained fluid—it simply affords an opening for its escape.

2. In Propositions 4 and 5 and elsewhere the nervous system is said to receive and retain force up to a given measure of capacity. It is objected to these expressions that, as they stand and without further explanation, they suggest the idea of force (as an entity) poured into the nervous system as water into a vessel. The accumulation of force is spoken of without reference to the necessarily associated change in the matter. Reception of force implies a change of conditions in the recipient matter the converse of that by which force is liberated. The nature of this change is the great point under discussion, and it is not defined in any of the propositions. Force may be received and retained by a change in the mechanical, thermal, electrical, or chemical condition of matter. It is necessary, before the difference between Dr. Richardson's views and those generally entertained can be discussed or even understood, that the nature of the change in the nervous system by which force is received and manifested should be defined.

3. A similar difficulty may be raised with respect to the term *resistance*, by which is meant the refusal of the charged system to receive more force (Prop. 5). It suggests the same idea as the expressions objected to in the last exception, and it is employed in a sense to which it is difficult to find any parallel in physical science.

In order that the reply to these exceptions may be clear and explicit, the following problem is proposed:—A frog's leg is prepared in the usual way, the interrupted current or other excitor is applied till the nerve is exhausted—explain the phenomena in terms of the new theory, defining the change in the matter of the nerve which accompanies the altered conditions of force.

These exceptions were brought before the Medical Society at the meeting on April 13. The discussion will be taken upon them at some future meeting.

REVIEWS.

The Story of the Captives. A Narrative of the Events of Mr. Rassam's Mission to Abyssinia. By Dr. Blanc, one of the Captives. London. 1868.

We recently extracted from the *Times of India*, in which the contents of this interesting little volume originally appeared, Dr. Blanc's account of that remarkable manifestation of hysteria in which Abyssinian girls fancy that they are converted into hyenas and act accordingly, shrieking, howling, and running with great rapidity on all fours. This form of disease is, according to Dr. Blanc, very transitory, the attack going through its complete course in twenty-four hours; and differs essentially from another equally singular hysterical development, known, from the province in which it chiefly occurs, as the "Tigretier." (a) In this disease, which is described in "The Life and Adventures of *Nathaniel Pearce*, written by Himself during a Residence in Abyssinia from the year 1810 to 1819," and quoted in Hecker's "Epidemics of the Middle Ages," the patients suffer from lingering feverish symptoms, which reduce them to skeletons, and prove fatal if the proper remedy cannot be procured. Pearce carefully watched the case of a friend's wife who was thus affected. She talked freely, but none could understand what she said. At the sight of a book or a priest she struggled, and was apparently seized with acute agony. After she had remained in a lingering state for three months, taking scarcely any food, the husband resolved to apply the remedy already alluded to. The services of a musical band being engaged, he borrowed from his friends all their silver ornaments, and loaded her legs, arms, and neck with them. The band then began to play, and very shortly her head, neck, shoulders, hands, and feet moved violently with the sound of the trumpets. She then stood up, soon began to dance, and occasionally would spring three feet from the ground. Although utterly devoid of apparent strength previously, she completely tired out the band. Next day the process went on, and throughout the whole of it she danced and threw herself into all sorts of inconceivable postures. Towards the evening she began to let fall her silver ornaments, and in the course of three hours she was stripped of every article. As the sun went down she suddenly started and ran with unnatural rapidity for a distance of two hundred yards, when she suddenly dropped as if shot. To complete the remedial process, a young man fired a matchlock over her body, struck her on the back, and asked her name, "to which she answered as when in her common senses—a sure proof of her being cured; for during the time of this malady those afflicted with it never answer to their Christian names." We have given this brief notice of the "Tigretier" with the view of directing the attention of some of the Medical staff accompanying the present Abyssinian expedition to the investigation of this remarkable form of disease, which obviously differs in many respects from the equally remarkable "Bonda" described by Dr. Blanc.

We shall do a service to humanity if we can introduce an improved system of midwifery. "The greatest mortality," says Dr. Blanc, "is due to childbirth. The woman is confined on all-fours, the child allowed to fall on the ground, and the after-birth to follow of its own accord. After the confinement the woman is placed upon a small native bed. Underneath, a fire with aromatic herbs is so arranged as almost to suffocate the newly-delivered woman." (P. 20.) Immediately the child is born, fresh butter is forced down its throat. Children are weaned only after the second year, but are circumcised on the eighth day. Our author confirms the generally accepted statement as to the prevalence of tapeworm, and as the raw beef-steak is a favourite article of diet this is not surprising. Almost all Abyssinians regularly take a dose of infusion of kousso every two months. The few who cannot swallow this dose take other anthelmintics, some of them very powerful. The powerful ones are the *wageris*, a long thin root; *enkoko*, a small reddish seed; *kassala*, a small black grain; *mechamecho*, a bulbous root; and *mausema*, the bark of a tree. It is very possible that, at all events in this department, our therapeutic stores may be considerably increased by the present expedition.

(a) Much information on the different manifestations of these diseases may be found in the chapter "On the Superstitions relating to Persons possessed of the Devil," in the new edition of Mansfield Parkyns's "Life in Abyssinia," 1868. The term "Bonda" occurring in Dr. Blanc's volume is probably a misprint for Bouda."

Transactions of the Odontological Society of Great Britain. Vol. V. 1865, 1866, 1867.

We have before us the results of the labours of the Odontological Society during the past three years, in the form of a handsome, well-illustrated volume. The Society is, we think, wise in not attempting to publish its "Transactions" every year, but in reserving the papers of real scientific and permanent value until they are sufficiently numerous to form a volume, which may take its place amongst the best productions of this class.

The present volume contains an unusual proportion of matter of general scientific interest, in addition to the communications of a more technical character. Amongst the former we would especially direct attention to Mr. Ibbetson's elaborate paper upon "The Fossil Teeth of Fishes in the Palæozoic and Lower Members of the Mesozoic Rocks," which is illustrated by numerous and very delicate engravings by Mr Bagg. The author deals only with the great oolitic orders of Placoids and Ganoids, now but poorly represented in the waters of the globe. We say oolitic, because they attained their greatest development at this period of the earth's history, but do not imply that their remains are in any way

limited to these strata, as may be well seen in the diagramatic table which accompanies the paper.

The dentition of the mole (*Talpa Europæa*) forms the subject of a careful essay by Mr. C. Spence Bates, F.R.S. It is somewhat remarkable that as many as five distinct classifications of the teeth (or dental formulæ) of this little animal should have been proposed by as many distinguished anatomists, amongst whom we may mention Frederick Cuvier, De Blainville, and Owen. The author, having had some excellent opportunities of investigating the subject, supports Professor Owen's view, and represents the dentition as follows :—

Incisors $\frac{3-3}{3-3}$ Canines $\frac{1-1}{1-1}$ Præmolars $\frac{4-4}{4-4}$ Molar $\frac{3-3}{3-3} = 44$

He also makes the interesting observation that in the young mole, "from the feeble connexion existing between the teeth and the alveolar wall, which rather appears to be undergoing absorption and waste for the purpose of the reception of the permanent set than to be closing in order to support the milk teeth, the idea is suggested that the deciduous teeth are developed according to a law of growth, but are not required to fulfil any purpose in the economy of the young animal's life." The eruption of the permanent teeth appears to be coeval with the appearance of fur upon the back of the animal, and the commencement of its independent subsoil existence.

A most valuable paper from the pen of Professor Owen, on the Dental Characters of Genera and Species of Fishes and Batrachia in some of the Northumbrian Coal Shales, concludes the volume. An important part of this communication consists in the accurate and beautifully-executed drawings by Mr. Tuffin West, representing sections of fossil teeth, prepared by Messrs. Craggs and Atthey; for whatever changes may be required by the advance of science in the deductions of the learned Professor, these drawings will still retain their value, and will not be easily surpassed.

Amongst the more purely Professional papers we find an early communication by Dr. Richardson upon local anæsthesia, especially as applied to dental operations. The subject has attracted so much attention since the date of this paper, that we need not do more than allude to the fact that this was the first public account given by the author of his important invention.

Mr. Balkwill, in a paper on the "Best Forms of Artificial Teeth for Mastication," draws attention to the movements of the lower jaw, and to the importance of the articular eminence in front of the glenoid fossa in enabling the molar teeth to glide forwards without becoming entangled amongst the cusps of their opponents.

Dr. Shortt's communication on Indian dentistry contains some interesting observations upon the effects of chewing the pawn or betel-nut, which appears to be a powerful stimulant and astringent, and gives rise to various evil effects in persons addicted to its use. The tembul, or quid, consists of the leaves of the chavica betel prepared with quicklime and chewed with portions of the areca nut and sometimes with tobacco. The prolonged use of this quid produces an unsightly shrinking of the gums, causing permanent loosening of the teeth and great discomfort, whilst the teeth themselves are deeply discoloured. The use of the tembul is said to protect the teeth from caries, from which the Indian population appear to be almost exempt; but we doubt whether another explanation of this fact may not be offered in the simple character of the national food, and in the scrupulous care with which the teeth are cleaned by the natives, who seem to regard this almost in the light of a religious duty.

We have been rather amused by observing the extreme anxiety of the author of a paper on dental nomenclature to abolish the terms canine and premolar teeth, as "not flattering to our humanity," and tending "to bring us down to the level" of the quadrupeds. We should hardly have expected to meet with such a sentiment as the following in any scientific work of the present day :—"For as man ranks above and enjoys the distinction of constituting a separate order by himself, so let him strive to maintain all the distinctive characters he can legitimately lay claim to, as tending so emphatically to mark his superiority over the brutes of the creation." Surely the anatomical homologies connecting man with the lower animals do not tend to obscure the only character worth considering as the essential and distinguishing feature of man's development, but rather display the wondrous harmony pervading nature's works, whilst they leave us still the right to exclaim—

"A man's a man for a' that."

PROVINCIAL CORRESPONDENCE.

THE MEDICO-POLITICAL ASSOCIATION.

GREAT MEETING AT BIRMINGHAM.

(From a Special Correspondent.)

I FOUND myself at Birmingham the evening before the meeting, and, with a view of securing a good place the next day, I proceeded at once to Nock's Hotel and took up my quarters. The meeting was advertised to take place at Nock's Hotel on April 17 at 3 p.m. On glancing at the Birmingham daily papers, I observed the advertisement of the Medico-Political Association among the leading announcements, and I was glad to see that the three points now before the Association were mentioned in them.

Nock's Assembly Room is decidedly one of the finest of the kind I have ever been in. It is used by the Birmingham people much in the same way that we cockneys use Willis's Rooms. I was told that John Bright's burning eloquence had often scintillated in that banqueting-room, and I wondered, as I glanced into it, whether the Doctors would keep up its character as a place for oratory. I made inquiries cautiously concerning the recent sick-club and dispensary struggles, and found that the public evidently was beginning to be educated on the point at issue. People are beginning to see that a Doctor is worthy of his hire, in the same way that other professions are considered worthy of their hire. With reference to this point, I heard from a leading professional gentleman in Birmingham (non-Medical) a few remarks that ought to be written in letters of gold. He said :—"I think no citizen should refuse a certain amount of unpaid labour to his fellow-citizens, provided always that this unpaid labour is beyond his own profession or business." I am not at liberty to mention the name of this gentleman, but I cannot refrain from stating that, in the recent struggle between the Profession and the Birmingham public, the powerful pen of this gentleman has been cast in with the Medical sons of toil.

It is evident to the meanest understanding that if a banker opened gratuitous accounts and placed credits in people's passbooks out of benevolent motives; if a publisher established a *gratis* list of authors; if a manufacturer or Manchester warehouseman gave away his grey shirtings or his fine spinnings; if the shipowner carried passengers and goods "for the practice it gave him"—it is self-evident that the paying customers and the lucrative business would fall off, and that the enterprising trader would drift into the Bankruptcy Court.

The Doctor's time and skill are his stock in trade, and if he is so foolish as to give away his stock in trade without a *quid pro quo*, how can we wonder at the public laughing at the Doctor as a person who is "not a business man?"

I called on a few Medical brothers and had a little private gossip concerning the next day's meeting. It was felt that a conciliatory speech or two on the Doctors' part would do great things for the Profession—that the public was quite willing to do the right thing, but that it was astonished not a little to find that appointments that had once been actively canvassed for at great expenditure of time and money were now repudiated. The public has always had an idea that great indirect advantages accrued to the Doctors; and it naturally takes time for a different view to obtain universal acceptation. The public don't give the Doctors credit for purely benevolent motives in the gratuitous labour business, but have a shrewd idea that the Doctor regards it as a stepping-stone to practice. When, therefore, the Doctor neither gets practice nor a character for benevolence, why does he pauperise his family to bolster up a system?

However, nobody wishes to interfere with the liberty of the subject, and of course every man can "walk after the imagination of his own heart" if he chooses; but why business knowledge should be scouted by the Medical Profession, when the clerical profession is keenly alive to the "main chance," I cannot conceive.

About 3 p.m. on the afternoon of April 17 a gathering of Medical men took place such as has not been seen for many years in the metropolis of the midland counties. Eighty-eight members were enrolled into the Medico-Political Association, which fact, considering that Birmingham is the citadel of the British Medical Association, is somewhat significant.

Dr. DAVEY, the President, delivered a speech distinguished for "its healthy tone, its temperance, and its common sense."

Such is the verdict of the public of Birmingham expressed in their local journals.

Mr. Sampson Gamgee delivered an oration remarkable for its genius and fire, and yet withal as remarkable for its conciliatory tone. Few men could have delivered a speech so suitable to the occasion. On the one hand, the public, irate at the rebellion of the Doctors, required gentle education; on the other, a Profession, lashed into excitement by its wrongs, heard the calm notes of the pilot directing the Professional bark away from the breakers of an unholy "Doctors' strike."

Mr. Baxter Langley delivered such a speech as a practised debater alone can make. He spoke most earnestly for some time, and stated that, until the Profession made itself felt in the division lobbies of the House of Commons, the Poor-law Doctors would continue to be overworked and underpaid.

Mr. Macpherson, the local Secretary at Birmingham, read a most satisfactory report, proving from the numbers that had joined the movement that the Medico-Political Association "supplied a want deeply felt by the Profession at large."

Mr. Oakes moved, "That this meeting pledges itself to use its best endeavours to rescue the registered Practitioner from his present anomalous position with respect to the Medical Council, and secure him a full and fair representation thereon."

Dr. Leslie seconded the resolution, which was put to the meeting and carried unanimously.

Mr. Sampson Gamgee proposed the second resolution:—"That the present Hospital system requires revision, in the interest of the public and of the Profession."

Dr. Yates, in seconding the resolution, mentioned that he had heard it stated that a great many of the public looked upon the Medical Profession as one not for gaining a livelihood, but simply for exercising humane treatment and showing kindness to their fellow-creatures. No doubt humanity and kindness prevailed to a very large extent in the Profession, but there was a principle of right and justice, and it was absurd to expect that Medical men, who had to spend a large amount of money upon their education, and who had to maintain the status of gentlemen, should go without an adequate remuneration for the services they rendered the public.

Mr. Baxter Langley proposed, "That in the opinion of this meeting the present low scale of remuneration of the Poor-law Medical service, while unjust to the Medical Profession, is injurious to the welfare of the sick poor." He maintained that there was wanted in the House of Commons a member who would represent fully and fairly both the Medical Profession and the Medical wants of the public; and in order to secure such a representative, he urged them to sink minor differences, remarking, in reference to the objection to a party man, that a man of no party was useless to any class of people If they wanted a representative in the House of Commons, they must have a pronounced politician, whose weight and influence in the House would compel the Government to do something for them. (Hear, hear.)

Dr. Bell Fletcher seconded the motion. He believed firmly that the Medical Profession was greatly underpaid, and that it was wretchedly overworked. (Hear, hear.)

Dr. Macgowan proposed a vote of thanks to the Chairman, and stated that the Birmingham meeting of the Medico-Political Association was but one of many of a series which had been organised with a view of "educating" the Profession on Medico political matters.

Mr. Baxter Langley seconded the vote of thanks, and the company testified by great applause their appreciation of the efforts of the Medico-Political Association to raise the power, status, and influence of the Medical Profession.

A dinner was held subsequently in a private room, at which the executive of the Association and many others attended. Dr. Davey occupied the chair, and Dr. Bell Fletcher was voted into the vice-chair. The company did not separate till a late hour, and many toasts were drunk with much enthusiasm. Mr. Clements, M.P., was prevented from joining the company by a prior engagement. His health was proposed in an able speech by his friend Dr. Bell Fletcher, and the company responded with much cordiality. A most brilliant speech was delivered by a certain non-Medical gentleman to whom the Birmingham Profession is much indebted; but as the meeting was a purely convivial one, it was not wished that your humble servant should take notes. It would ill become me, however, to finish my brief account without alluding to the handsome manner in which the entire company acknowledged the great and powerful aid which the *Birmingham Daily Post* and *Mrs's Birmingham Gazette* have given to the registered Practitioners of Birmingham.

GENERAL CORRESPONDENCE.

THE ALLEGED GANGRENE AT THE NEWCASTLE INFIRMARY.

Letter from Dr. Charles J. Gibb.

[To the Editor of the Medical Times and Gazette.]

Sir,—I observe in your journal of last week certain observations by one of your correspondents relative to the hospital gangrene which has existed more or less in our Infirmary for the last year and a half.

It is, happily, quite true that no fresh cases of hospital gangrene have lately appeared in this Infirmary. The last case occurred two or three weeks ago in a patient under my colleague, Dr. Heath. He is now convalescent, and, along with some other gangrene cases, still in the Hospital, has wounds which are now quite free from any taint of gangrene, and will soon be quite well. That the gangrene has infested this Hospital most severely is admitted by all. Indeed, last year, in a written communication to the House Committee, I reported two deaths and one amputation of the arm amongst my own Hospital patients, and, having sickness in my own household, I was forbidden by one of the Infirmary Surgeons, who was in attendance upon my wife, to enter the infected wards for some weeks.

I quite agree with your anonymous correspondent that the dressing in our Infirmary is defective, in consequence of the staff of dressers being too small. I have shown, by returns procured from all the great metropolitan and provincial Hospitals, that, whereas the average proportion of nurses to patients in them was as one to five, it was one nurse to every thirteen patients in the Newcastle Infirmary. I did not say that the defective nursing was the sole cause of the gangrene, but only "how probable it is the unhealthiness of our Infirmary proceeds in some measure from the scanty number of nurses."

Your correspondent says:—"With regard to the case of bleeding alluded to by Dr. Gibb, the facts are as follows:—A French seaman had his hand injured at sea, and for several days the injuries he had received remained undressed or untreated, and on the arrival of the vessel in the Tyne he was at once removed to the Infirmary. On his admission into the Hospital his hand was found to be in a gangrenous condition. Hæmorrhage occurred four times in one day, and in each case was immediately suppressed by the clinical assistant. The patient's hand was amputated by Dr. Bolton, the Resident Medical Officer. With reference to the statement that there was no night nurse in attendance, I am assured that there was one."

The accident and operation books of the Infirmary supply us with the following facts:—"Antoine D., aged 21, admitted into the Newcastle Infirmary, as in-patient, on October 24, 1867, with compound fracture of the fingers, inflicted by a crane, and amputated on admission. His hand afterwards amputated at the arm, on November 16, 1867, for gangrene, and discharged cured on January 10, 1868."

I have only to observe that after his fingers were amputated on the day of his admission the wounds became healthy, and, under ordinary circumstances, his thumb and hand would have been preserved to him; but the hospital gangrene then prevailing in the wards seized his wounds after he had been about a fortnight in the Infirmary, and gradually ate away his hand as far as the wrist, when amputation was performed to save his life. It is quite true that there was no night nurse to attend to the group of thirty-three beds, in one of which he lay, and I am sorry also to say that there was not even a light in the ward when the severe bleeding occurred during the night, which occasioned the calling up the ordinary day nurse out of her bed. It is also quite true I stood at the bedside whilst Dr. Bolton amputated his arm under my instructions, as it was so virulent a case of gangrene that I feared I might carry some infection amongst my own private patients.

The reason why you, in common with our local newspapers, are troubled with such communications as that which I have now shown by the Infirmary records to be incorrect, is this—that some parties who oppose all those improvements which the lapse of time renders imperative in all well-regulated Hospitals, or who, with a genuine desire to benefit the charity, have been misinformed as to facts, desire to lead (or rather mislead) the public mind, and have flooded our local press with articles on the absurdity of nursing the patients of our

Infirmary by unpaid lady nurses, sisters of charity, etc.; whereas those ideas have never been entertained by any of those persons who have hitherto advocated the changes sought to be introduced into the Infirmary.

When I mention that no substantial change has taken place in the condition of this large Hospital (230 beds), either in the staff of officers or in its rules, since it was enlarged fifteen years ago, and remind you that since that time the Medical Profession, Hospital management, and Medical education have been almost revolutionised by Medical legislation, you will not be surprised to learn that some governors of wealth and position, who have time and opportunity to inspect the nursing and other arrangements of similar institutions, desire some change; also that the honorary Medical staff should desire to bring it up to the level of the day. I was induced to address a letter on the state of the Hospital to the Governors, and although I am free to confess that I may have expressed myself rather warmly, and may not have strictly conformed to ordinary red-tapism, yet I think no one knowing anything of the facts, doubts the necessity of the investigation now going on, and the need for some changes.

I am, &c.

Charles J. Gibb, M.D.,
Surgeon to the Newcastle Infirmary.

Westgate-street, Newcastle-on-Tyne, April 21.

CURIOUS CASE OF POISONING BY OXALIC ACID.

Letter from Dr. W. Bird Herapath.

[To the Editor of the Medical Times and Gazette.]

Sir,—I send you herewith a report of an inquest on a case of poisoning by oxalic acid, which is remarkable in many respects:—

1. The patient took three-quarters of an ounce avoirdupois.
2. She died ten minutes afterwards, or very shortly after.
3. She tested the contents of her own stomach.
4. She vomited almost all the poisoning material, as the coats of the stomach retained by absorption only two grains of the oxalic acid.
5. There was nothing to be found in the contents of the stomach, which were merely effused blood. The stomach was intensely red, inflamed in that short period.

I say that she tested the contents of her stomach, by having vomited into a bucket of water having a great quantity of lime in its solution. "The vomited matter was like milk when seen on the floor, and when she vomited into the bucket it appeared to turn the water into milk." This, however, did not come out in the evidence.

The floor was wooden, not of stone. The oxalic acid was dissolved in hot water highly charged with lime; it acted as an instantaneous emetic, and came up almost as it was swallowed, a milky-looking fluid capable of precipitating a large quantity of lime.

I am, &c.

Bristol, April 20. W. Bird Herapath.

POISONING BY CARBOLIC ACID.

Letter from Mr. Fred. Sutton.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the current volume of the "Guy's Reports" a very interesting case of poisoning by carbolic acid is mentioned by Dr. A. S. Taylor. Having had a somewhat similar case occur in my practice from the same poison, and feeling its effects have as yet been little tested, I trust the following brief facts may be acceptable to some of your readers.

On the evening of March 18 I was hastily summoned to see S. C., aged 43, who had accidentally taken ʒj. of carbolic acid (which was kept in the wards for disinfecting purposes) instead of a dose of black draught. I saw her within five minutes after the poison was taken. She was reclining in a chair insensible; her face was blanched and bathed in perspiration, pupils contracted; pulse 100, feeble, and very intermittent; respiration stertorous and smelling strongly of the fluid; there was slight lividity of the lips and tips of the fingers. She rapidly became worse, and died within an hour and a half of taking the poison, the body becoming much swollen a short time before death.

The only treatment employed was an emetic and the stomach-pump. The former she could not swallow, and the latter only brought back a small quantity of the contents of the stomach, which smelt strongly of the fluid. I found great difficulty in passing a tube down the œsophagus, owing to the spasmodic contraction of its walls.

The post-mortem examination was made seventeen hours after death, G. W. W. Firth, Esq, Consulting Surgeon of the Asylum and Surgeon to the Norfolk and Norwich Hospital, and Dr. Beverley, House-Surgeon of the latter institution, kindly assisting me. Body well nourished. At the angles of the mouth the skin was rather discoloured and shrivelled; the interior of the mouth was very white; tongue dry and chippy; the mucous membrane of the œsophagus was dry and shrunken, and of a brownish colour. The lungs were healthy. Heart flabby, and both the ventricles were empty; the valves were healthy. The stomach contained about a pint and a half of food, consisting of partly digested meat, bread, etc. The mucous membrane could be readily peeled from the walls of the stomach. There were several peculiar dry white patches on the surface of the rugæ, and the whole of the interior of the stomach was slightly inflamed; the walls of the duodenum were similarly affected, though in a much slighter degree The liver was small and slightly lobulated. Spleen and kidneys healthy. Brain: The dura mater was natural, the arachnoid thickened and opaque, the Pacchionian bodies unusually distinct. (I have generally noticed this in all the brains of the insane that I have examined.) The brain substance was apparently healthy.

I am, &c.

Fred. Sutton, Resident Medical Superintendent.
Borough Asylum, St. Augustine's-gates, Norwich,
April 13.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 14, 1868.

Samuel Solly, Esq., F.R.S., President, in the Chair.

Sir William Fergusson communicated a paper by Mr. E. J. Furner, of the Sussex County Hospital, on

A CASE OF DOUBLE AXILLARY ANEURISM SUCCESSFULLY TREATED BY THE LIGATURE OF BOTH SUBCLAVIAN ARTERIES.

John P., aged 30, a labourer on the Brighton Railway, accustomed to very laborious occupation, was admitted into the Sussex County Hospital on October 22, 1866, under the care of Mr. Furner, with a large aneurism of the right axillary artery. The tumour measured seven inches in length by five inches in breadth, the clavicle being greatly pushed up by the size of the aneurism. Mr. Furner tied the subclavian artery in the third part of its course, in the usual manner, and also a large artery, the transversalis colli, which had an abnormal origin, arising direct from the subclavian artery. No unfavourable symptom occurred for the first twelve weeks after the operation (the ligature from the transversalis colli came away on the fourteenth day, that from the subclavian on the twenty-fourth day), when suppuration of the sac took place, and upon a free incision being made through the pectoral muscle, a discharge of about eighteen ounces of most offensive matter and broken-up coagula took place. From this time the patient continued daily to improve, and he left the Hospital cured on March 20, since which time he has enjoyed good health, and has been able to resume his usual laborious occupation. In June, 1863, Mr. Furner tied the left subclavian artery in the same patient, for an axillary aneurism. The same irregularity of distribution of the transversalis colli occurred, and was tied. The case was published in the *Medical Times and Gazette* of October 24, 1863. Chloroform was not used in either case. The principal interest in this case consists in the fact that it is the only one recorded where both subclavain arteries have been tied in the same patient.

After a few remarks from the Chair on the desirability of early operation,

Mr. J. Wood thought that the great merits of the paper were its interest and its brevity. He believed that the ligature of the jugular vein gave rise to some of the subsequent bad effects, and it was treated in the paper almost as a matter of course. He held that it gave rise to a double danger. From

the position of some of the sinuses he should think that they were owing to the tying of the jugular. It was often difficult to avoid interfering with the vein, and then it was better to ligature it than to cut it. He also thought that the subclavian in the second part of its course gave off a large branch, generally the posterior scapular, sometimes along with the superior scapular, and the two together might be mistaken for the main artery. The practice of tying this was good If the subclavian were tied without reference to the existence of this branch, the collateral circulation might be too soon set up, and pulsation in the tumour return. It should always be looked for, as it existed in about one half of the cases, and, if found, should be tied.

Mr. H. Lee thought, on the other hand, that tying the jugular was a bold and judicious proceeding, seeing that the aneurism lay so deep. The vein, by pulling about, must have been inflamed, and the blood would have been contaminated.

Mr. Cooper Forster thought that we were always too much afraid of tying a vein. He was of opinion that it was better to tie the jugular than to pull it about. A bad case had come into Guy's that morning; a femoral aneurism had ruptured, and a ligature would have saved the patient. He had recently read a similar case before the Clinical Society. The great rules were in cases of ruptured femoral to cut down and tie, of popliteal to amputate.

Mr. Birkett remarked that many of his cases went against the notion that one aneurism was necessarily followed by another, as some patients he knew had been at their work for ten or fifteen years with no return. As to ligaturing veins, he approved of it in this case, but not generally. In one case, where a tumour was removed from the neck with considerable difficulty, the veins were much pulled about, but no bad results followed.

Mr. J. Wood explained that his views were to avoid interfering with the vein if possible, as in this incision it ordinarily lay towards one extremity of the wound, and was easily avoided. If it was fairly in the way, the lesser difficulty was to cut.

Mr. C. Moore had seen the subclavian tied by a curved incision with the convexity downwards. He thought it a good plan. He also thought that Syme's plan of scooping out the contents of the sac was the best in such cases.

Mr. Blaker, on behalf of Mr. Furner, explained that the jugular was tied in both instances, in the first because the tumour could not be got at without doing so, in the second on account of his former experience.

A paper, by Dr. R. H. Caldwell, was read on

AN EPIDEMIC TYPH FEVER IN TRINIDAD.

The author stated that during the year 1867 an epidemic of fever had occurred in Port of Spain, Trinidad, which differed in many respects from any other fever which in the experience of the oldest Medical Practitioners had ever before visited the island, but which in all essential points was the typh fever of Europe. Port of Spain is a badly built, ill-drained or undrained, overcrowded town, containing upwards of 18,000, for the most part persons of the very dirtiest habits, many of them living very poorly, and all, except the educated classes, firmly convinced that night air is deadly, and therefore closing every nook and cranny in their houses at night. Among this population a fever appeared, which for the first few days was in almost all cases distinctly intermittent or remittent, which then became continued, and which gradually subsided into an intermittent again With the ordinary symptoms of fever there was in nearly every case at the commencement vomiting of bile or worms, sometimes of both. In a few cases there was also a diarrhœa of pure bile. As the fever became continued one of two sets of symptoms occurred; either there was tenderness in the right iliac fossa, gurgling, and general abdominal uneasiness, mostly with the usual pea-soup diarrhœa, or the head was attacked, and the bowels were constipated, sometimes obstinately so. In some cases the delirium and insomnia were very severe. The delirium was occasionally maniacal, and in two cases took the form of a resolute refusal of all food and medicine with clenched teeth. In the other, the so-called typhoid cases, the diarrhœa was often very severe. In nearly every case lumbrici were passed, often abundantly. No rash could be distinguished in the majority of cases on account of the colour of the patients, but in no case was a true lenticular rose-coloured spot seen. In a few cases there were the small purple spots of typhus. In one fatal case in which these were seen there were no abdominal symptoms or lesion; in the same house there were three cases of typhoid. Ulceration of Peyer's patches, etc., was found after death. The author stated that, having for several years adopted Dr. King Chambers' plan of treatment for fever in England, he determined to adopt it in the West Indies, and give it a fair trial. Out of 103 cases, of which a table was given by Dr. Bakewell, 90 were treated by Dr. Chambers' plan, modified slightly to meet the exigencies of the climate. Of these 90 only 3 died, and one of the three was under treatment only two days, having been under the care of another Practitioner. The remaining 13 were, for various reasons fully given in the paper, not treated by Dr. Chambers' plan. Several of them were *in extremis* when first seen; one refused all medicine; two were attended before the disease was accurately diagnosed. The slight modifications of Dr. Chambers' treatment were, that in every case of insomnia opiates were freely given. No patient, if it could be prevented, was allowed to pass two consecutive sleepless nights. Astringents were given when the diarrhœa was very severe, but not otherwise. Small doses of tincture of aconite were given to children, combined with the acid, the author having, by eight or nine years' experience, satisfied himself that aconite possesses a peculiar power of allaying febrile excitement in children. The treatment was pursued under every disadvantage. Probably in not six of the cases was the beef-tea given regularly. Wine was only given, as a rule, after the fever had begun to intermit for the second time; no form of alcoholic stimulant was given at the commencement of the fever. The paper was accompanied by a table of 103 cases, with remarks, and some of the important cases were given more at length in the paper itself.

Dr. A. P. Stewart remarked that the paper would have been more satisfactory had we known something of the climatic conditions. Probably these had been the same for years. There had in this country been remarkable outbreaks after heat followed by heavy rains. The post-mortem appearances showed clearly the disease was typhoid, although intermission in convalescence was rare in this country. If so, the treatment was remarkably successful. The percentage of young people affected was against the typhoid view.

Dr. King Chambers thought the disease might have arisen from the removal of some of the worst nuisances, although there was no notice of this. He also thought that change of treatment might give rise to change of symptoms, and that many of the so-called symptoms of tropical disease might arise from calomel. The author had not distinguished between typhus and typhoid, but the treatment was good for both. Its value was shown by the fact that on the old plan his percentage mortality was about 19½ per cent., on the new about 2½ per cent.

Mr. Hinton corroborated the statement as to the number of persons in the West Indies affected with round worms. He also thought that much of the difference presented by tropical fevers was due to treatment, but certainly not the whole.

Dr. Goodfellow had read Dr. Chambers's paper, and thought his former mode of treatment too officious. The plan introduced was not new; he himself had employed it for twenty years.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, April 18.

Dr. Druitt, President, in the Chair.

Mr. Francis Taylor, M.R.C.S., of Romsey, Hants, read the following paper on his system of dealing with human excreta, whereby the solid parts are collected, dried, and utilised for agricultural purposes:—

Several fretful remarks have issued lately from the press, "that the sanitary effects of drainage have been retarded by the present unfortunate dispute as to the relative merits of dry conservancy and water sewerage." Owing to the enormously increased population of our large cities and towns, sanitary questions have become very urgent; but it would indeed be a national calamity if, through such urgency, or through the terrifying effect of a pestilence such as has just passed over the village of Terling, hasty and faulty legislation and plans should be decided on.

I do not propose to take up the time of this meeting by showing the difficulties and objections to the water-closet

system, or to bring forward proofs that it has reached, in many large towns, its utmost limits, or by pointing out the many difficulties and objections to its best consequence—viz., irrigation of land by the defiled fluid; but I do propose to show to this meeting that it is quite feasible and very profitable to detain and keep back from sewerage the stinking, pestiferous, disease-giving, solid part of human excreta, and so to treat this as to make it perfectly innocuous and useful.

Although I am speaking to a London community, I am free to confess that I have no hope in a lifetime of influencing London arrangements, except, perhaps, as to its suburbs. My utmost hope is that I may be the means of doing away with every filthy cesspit in Great Britain, and so preventing the defilement of spring and well water. It has always struck me as a very important fact, that in the human body the two principal excretions should be so carefully and completely kept separate, and, in all our sanitary arrangements, that this fact ought to have been a guide to us to continue this separation. So complete and complicated an arrangement would not have been contrived but for an all-wise purpose. To attempt to keep with impunity the solid excretion, mixed with the liquid, is almost as unpractical a proceeding as it would be if a maltster were to keep his wet, steeped, and germinating barley until it might be convenient for him to use it without drying it into malt. It must become a festering mass of corruption! But if the liquid be drawn off and the solid matter perfectly dried, the process is natural, and the storage convenient and profitable. This perfect drying of the solid part, I am happy to be able to assure you, I can thoroughly effect by the two apparatus of which I have models before you. [Mr. Taylor here showed specimens of dried excreta, perfectly inodorous, which he stated, in answer to a question from the Chairman (Dr. Druitt), to have been dried on one of his platforms in three weeks, and to have been part of a sample sent to the late Mr. Herapath, of Bristol, for analysis, and which Mr. Herapath certified to contain 72 per cent. of potential ammonia, besides a large proportion of phosphate of lime. Mr. Taylor then described the apparatus.] A pan is placed under the privy seat, with an inclined movable floor. The excreta fall upon this, the fluid part at once running off quickly, and being conveyed away into the back kitchen drain. It is a valuable feature in this arrangement that slops or water may be thrown into the pan in any quantity. A reservoir of dry ashes, with a farthing's worth of carbolate of lime per week mixed with it, is so fixed at the side of the seat that a few ounces of the dry absorbent deodorising powder can be thrown by a very simple movement—more simple than that of the plug of a water-closet—on to the solid excreta, so deodorising it and the soiled sides of the pan, and absorbing the moisture. By the action of the lid of the privy-seat, the movable floor of the pan is made to travel away between two joists under the floor of the privy. By this the solid excreta and the ashes are scraped off on to a table or platform below. The table has wooden teeth at its circumference, and is made to move round a few inches, every time the place is visited, by a ratchet, acted upon by a crank attached to the heel of the door, or the whole movement may be produced by the lid of the seat. All the space under the floor, where the table revolves, is well ventilated, and the deposits being necessarily separated, and any massing of them avoided, evaporation and sufficient drying are secured; and, after a complete revolution of the table has occurred, a scraper, acted upon by the same crank at the heel of the door, pushes each deposit in turn off the table into a bin or reservoir provided. The accumulation is periodically, not inconveniently often, removed to a large shed outside the town, provided with latticed shelves, where it is stored, the drying perfected, and the ashes and paper separated. The hard lumps are then ground by a mill, fine enough for drilling. The accumulation is so dry and inoffensive that it is taken through several houses here, where there is no back or side outlet, without the slightest annoyance.

By this means I assure you, Sir, I am able to collect, deodorise, and utilise this very valuable material, so that the springs and wells are undefiled, the air around our houses unpolluted, and the land supplied with a manure loaded with phosphates, as valuable as Peruvian guano.

The capital cost of my improved and very durable apparatus is about five shillings per head, and the value of the accumulation from two shillings to half-a-crown per head per [illegible] profit from 10 to 50 per cent.

The use of refuse coal ashes is valuable in drying and deodorising the fetid moisture of the solid part, and where all the ashes that the house supplies can be used in the privy-closet, no other admixture is required; but on the different floors of a house, where the ashes would have to be conveyed, a much smaller quantity of sifted ashes would be required. I have found that a hopper containing four gallons of sifted ashes with a pound of Macdougall's disinfecting powder (which costs a penny) mixed with it, is sufficient to dry and deodorise completely all the solid matter produced by ten persons *in a month*, and that all the attention, therefore, which the apparatus requires is to supply this, and to remove the accumulation from the premises—about ten minutes' thought and labour once a month.

It has been said very lately that any system of storing human excreta about our houses is but a continuance of the cesspit system; but surely, if the effect of my plan is as perfect as I have described it, this must be a prejudiced opinion. If, from the moment the excreta are deposited, all putrid emanations are stopped, and all further decomposition prevented, no evil can arise from its presence. [Mr. Taylor here showed a thin dried specimen of guano which must have been the produce of a dose of compound senna mixture or of croton oil, quite hard and dry, and perfectly inodorous.] Then, for the interior of houses the commodes may be hermetically constructed. Thin lead or galvanised iron would effectually preserve the inmates of a house from any possible evil. By my plan a most valuable manure, essential to the earth's welfare, would be more equably distributed over the country than by irrigation. The advantages of irrigation are necessarily limited to the neighbourhood of towns.

I am gratified to see Sir Charles Fox here to-night, as I intended to quote a remark he made to me a year ago to this effect:—"That if the plan were convenient, if we could make the solid matter useful and profitable, and so save the immense waste of water supply, there was no reason why we should not apply this plan even over the London main drain itself."

I will not occupy the limited time of this meeting further than by reading a quotation from an article in the *Medical Mirror* by Dr. Hearne, of Southampton, a perfectly disinterested looker-on:—"Independently of the other advantages the change advocated is calculated to effect, Mr. Taylor has shown that the excreta, as utilised at Romsey, Hants, can be made largely remunerative. A plan with such an unusual recommendation—that of being more than self-supporting—not only absolutely non-costly, but profitable, in addition to its meeting all other requirements, can surely demand no further argument to secure its immediate adoption."

The Chairman then called upon Sir Charles Fox and asked him if he, as a practical man, would state his opinion of Mr. Taylor's plan. Sir Charles Fox rose and said, "That he had much pleasure in giving his opinion, as he thought the plan a very good and valuable one."

The adjourned discussion on Dr. Letheby's paper in reference to the cholera epidemic of 1866 and the theory of its connexion with an impure water supply, was opened by

Mr. Hawksley, C.E., who, in the course of a very long speech, took occasion to repeat the opinions he had expressed at the previous meeting adverse to the water theory. He expatiated at great length on the routes taken by cholera in its visitations to Europe; but his conclusions as to the "invariable" path of the disease, as well as his remarkable ideas on the physiological reasons why cholera would be more likely to be propagated through the lungs than through the stomach, were calculated seriously to diminish the weight of his authority. Remarking that cholera had "been made the horror of the day," he declared his conviction that there was no instance on record of any town in which, upon a judicial scrutiny of the facts, cholera had ever been proved to have been propagated by water. Citing again the immunity of Birmingham in 1848-9, although its water supply was derived direct from the Tame, which in its course had received the excreta from towns where cholera had raged, he referred to the incidence of the disease in some towns with good water, while others with bad water escaped, in proof of his view that "water had nothing to do with the propagation of cholera." He stated positively that, when cholera was so bad in Newcastle in 1853, he knew that its causes were entirely independent of the water supply. In regard to the official reports on the epidemic of 1866 in East London, Mr. Hawksley contended that the inquiries on which they were based were not conducted in a judicial or logical manner, or in a way to lead to any knowledge of the real cause of the outbreak; an opinion had been first formed, and then all the facts were investigated under colour of that predisposition.

Mr. Lewis called attention to one of the inaccuracies of the previous speaker, who had on two several occasions in that room cited the case of Newcastle-on-Tyne as evidence of the failure of the water theory of choleraic propagation, whereas it distinctly appeared from the report of the Commission appointed to inquire into the Newcastle outbreak that it presented a remarkable parallel to that in East London; for it was found that, up to a given date, water had been drawn from the contaminated Tyne for the supply of the town, and that, when a change was made to a purer supply, the mortality from cholera rapidly declined. He thought it most desirable that such statements as the one to which he had referred should be corrected.

Mr. Jabez Hogg thought that, although there could be no doubt about the propagation of cholera through the medium of water, yet there was a danger lest its too wide acceptance might divert attention from other possible causes of the spread of the disease. In regard to the fungoid theory, he thought that it was even less tenable than the water theory. At any rate he had been quite unable to satisfy himself that fungi collected in the atmosphere could be connected with cholera; moreover, spores of fungi passing into the lungs, washed as they are with fluids, could hardly have sufficient rest to enable them to develope into a cause of disease. Then, again, the rapid growth of fungi admits the supposition that, when they are found in a body, they may have grown after death. This rapidity of growth rendered Hallier's researches unreliable

Mr. Liddle rebutted Mr. Hawksley's assertion that the official inquiries into the East London outbreak were conducted in an unphilosophic and partial manner. There was this remarkable coincidence which could not be denied—viz., that the disease broke out at the very time that Mr. Greaves admitted that impure water had been supplied. Impure water was not the only cause of the epidemic; being first introduced by water, the disease would spread naturally in a variety of ways. He had himself collected evidence which proved undeniably that cholera had resulted from drinking bad water; but, in fact, the cases in the Southern districts in 1849 and 1854 were entirely conclusive upon the matter.

Dr. Thudichum could make nothing of what had been said against the water theory. The case as originally put was complete, and none of the objectors had attempted to grapple with it. He advised Mr. Hawksley to study the records of the General Board of Health, which were not as widely known as they ought to be. It was proved in those records not that water caused cholera, but that a certain filthy water served to the public had given a predisposition to cholera. The initiatory cause of cholera is cholera itself, and its propagation is by means of choleraic evacuations in certain stages of decomposition. It could not be proved or denied that cholera can be propagated by water, but presumptive evidence goes to establish that it can, and therefore it is the duty of all those who are engaged on behalf of the Government in the supervision of matters relating to the public health not to allow impure water to be distributed.

Dr. Druitt said that, before Dr. Letheby replied on the whole case, he wished, in the first place, to correct a little laxity of definition as to what had been called "the path of cholera:" the propagation of cholera simply meant the movement of diseased men and their secretions, and the rate of propagation must vary, therefore, with variations in the speed as well as in the direction of travel. Whether the water theory were true or not (and he could not help assenting to its probability), he regarded as of secondary importance to the conclusion to which, on grounds of public utility, he was compelled to come—namely, if cholera could be propagated by water, the water companies could not be trusted to preserve us from it. He wished also to bear testimony to the high character of the official investigations which had been made into the circumstances attending the East London epidemic; very difficult services were performed in the interests of the public, and they ought not to be lost sight of.

Dr. Letheby said his object in initiating this discussion was to get opinions from his brother Health Officers who had local knowledge and who worked in the very centre of the epidemic, rather than from those who sat at desks and wrote from maps. He believed that in the official investigations which had been made those conducting them had been guided by coincidences, and nothing more; and he protested against the adoption of a foregone conclusion which tended to stop all further inquiry. No fact had been alleged to prove the connexion of cholera with the East London water, while the exceptions of Stamford-hill and other places were alone sufficient to prove the fallacy of the water theory. As to the conclusions of the General Board of Health, he regarded them with the greatest suspicion; they all rested on preconceived notions. The conclusion that the water supply of East London originated the outbreak in that quarter was first adopted by the Registrar-General, and then all the facts were examined and discussed from that point of view alone. It was to put an end to this unscientific mode of investigation that he had raised his voice.

MEDICAL SOCIETY OF LONDON.

Monday, April 13, 1868.

Dr. Richardson, F.R.S., President, in the Chair.

Eleven new Fellows were elected, and six new candidates proposed for election. Dr. Prosser James and Mr. Haviland were formally admitted by the President.

It was announced to the meeting that the Council recommended that members of the Profession resident in the provinces should be eligible for the Fellowship of the Society under the usual regulation, but on payment of the entrance fee only, the annual subscription becoming due in case of such Fellow changing his residence to the area of the metropolitan postal district.

Mr. Francis Mason exhibited for Mr. Pratt, of Oxford-street, an artificial arm and hand of very ingenious construction and moderate price.

Mr. Henry Lee showed a

LACERATED SPINAL CORD

just removed from the body of a patient whose case was noticed at the last meeting. There existed fracture of the fifth cervical vertebra and extensive laceration of the corresponding portion of the cord. The symptoms were almost identical with those noticed in a case which occurred the very same day, in which the interior of the cord only was found bruised; but in this case there had been an herpetic eruption of the lips. The first patient, with internal disorganisation only, lived three days; the second, with fracture and laceration, seventeen days, breathing only by the diaphragm.

Mr. Bryant alluded to the question of duration of life in such cases. After a series of investigations he came to the conclusion that when respiration became purely diaphragmatic, it was quite exceptional for a patient to live more than three or four days.

In explanation of a remark by Dr. Day, Mr. Lee said that he considered the herpetic eruption possibly due to some absorption from the fractured cancellous structure of the bone.

Mr. Hunt drew attention to the use of

NITROUS OXIDE AS AN ANÆSTHETIC,

which had been suddenly urged upon the Profession.

The President considered that nitrous oxide was no true anæsthetic, but an asphyxiating agent. It does not diffuse into the blood, but prevents the normal oxygenation; its action upon animals is rapidly fatal. It cannot be otherwise than a dangerous agent, and its employment a retrogression in science.

Mr. Henry Lee asked why those agents which merely prevent or withhold oxygenation can of themselves prove fatal.

Dr. Sansom greatly agreed with the President. Nitrous oxide had been formerly tried and found wanting; it was an asphyxiating agent, and no asphyxiating agent can be a mere negative, for wherever there is a deficient oxygenation of blood, there is always accumulation of the products of disintegration, which are in themselves deadly poisons. Nitrous oxide is greatly inferior to chloroform, both as to its manageability, and its prospects of safety.

Dr. Broadbent having postponed to a future meeting the discussion on his exceptions to the "Propositions on Force,"

Mr. Thomas Bryant read a paper

ON SOME CASES OF INFLAMMATION OF THE BREAST SIMULATING CANCER.

The author related ten cases in which many of the local symptoms would have led to a wrong diagnosis had the Surgeon failed to inquire into the previous history and causation of the signs observed. In some the retracted nipple had been congenital; in others adherence or puckering of the skin over the breast was the result of a previous abscess. The value of an exploratory puncture in doubtful cases was illustrative. Nearly every local sign of cancer may be simulated by some

simple affection, and it is only by careful attention to small points that a true diagnosis may be made.

Mr. Francis Mason had known instances of subgrowths from the perichondrium or periosteum of the ribs which simulated the appearance of cancer.

Mr. H. Lee said it was important in all cases to distinguish between real retraction of the nipple and encroachment of the neighbouring structures thereupon.

Mr. Spencer Watson related a case in which some signs indicated cancer, others abscess; there was even on the surface of the tumour a spot which plainly gave the fluctuation of subjacent pus; yet, the breast having been removed, the centre of the tumour was found to be decidedly cancerous.

Mr. Hunt and Dr. Gibbon also took part in the discussion, and related instances of difficult diagnosis.

In his reply Mr. Bryant explained the mechanism of retracted nipple. It is merely the result of the separation of the milk-ducts by an exudation occurring between them.

Owing to the lateness of the hour, the paper on "Hospitals," which had been announced, was postponed till the next meeting.

NEW BOOKS, WITH SHORT CRITIQUES.

[illegible] Medical Sciences of the Stomach and Intestines, and their Relations to Diseases of other Organs. By Samuel Fenwick, M.D. Medical Physician to the London Hospital, Lecturer on Comparative Anatomy at the London Hospital Medical College, Assistant Physician to the City of London Hospital for Diseases of the Chest, etc. London: Churchill. 1868.

*** There have been so many works lately published on diseases of the [illegible] that the appearance of another on the subject requires some explanation. Dr. Fenwick's book has, indeed, only come before the public because he has found that his lectures on the subject have assumed the proportions of a volume. While, however, the London Hospital Medical College lectures may be new to many readers, they are not new to the students who have attended Dr. Fenwick's class, and they will find in this book many worthy features in this volume is the admirable figures illustrating the [illegible] changes which take place in [illegible] of the stomach and intestines. Another most important characteristic is [illegible] disorders. These peculiar inquiries constitute, we think, the chief value [illegible] and accuracy.

[illegible] Chemistry, Descriptive and Practical. By W. Allen Miller, M.D. [illegible] Chemistry. Fourth edition, with additions. London: Longmans. 1868.

*** Professor Miller's text-book [illegible] before the public, for no sooner is one edition of one volume published than another of another is required. The most noteworthy fact in connection with [illegible] sources on the allied subjects of obstetrics and gynæcology. Nor has quantity alone been the most noticeable feature connected with them, for [illegible]

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D. [illegible] R.A. Hospital, A.M. Columbia College, New York. Fourth edition, revised and enlarged. London: Churchill. 1868.

*** [illegible]

Chapters on Man. By C. Staniland Wake. London: Trübner and Co. 1868.

*** [illegible]

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 16th inst., and, when eligible, will be admitted to the pass examination:—

Anderson, R. B., St. Mary's Hospital.
Anderson, J. W., Manchester School.
Bennett, A. H., St. Mary's Hospital.
Barnes, E. G., St. George's Hospital.
Cremen, P. J., Dublin.
Cufaude, Frank, Edinburgh.
Dickinson, F. W. E., Westminster Hospital.
Edwards, W. H., St. Bartholomew's Hospital.
Evans, E. B., Guy's Hospital.
Fear, William, King's College Hospital.
Fitzgerald, Conrad, Bristol.
Furnivall, H. W., Manchester School.
Hopkins, John, St. Mary's Hospital.
Jones, Thomas, St. Mary's Hospital.
Johnson, C. H., Hull.
Lawrence, W. A., New York and King's College.
Marsh, W. A., Guy's Hospital.
May, Thomas, Westminster Hospital.
Mayo, Charles, Westminster Hospital.
Mayo, [illegible]
Nash, H. C. S., [illegible] Hospital.
Payne, M. H., University College Hospital.
Phibbs, R. F., King's College Hospital.
Preston, T. G., St. Mary's Hospital.
Rowland, G. Le H., King's College Hospital.
Rumsey, L. D. H., [illegible] New York, and University College.
Smith, A. W., Guy's Hospital.
Stone, Vincent, St. Bartholomew's Hospital.
Vasey, C. L., St. George's Hospital.

It is stated that of the 108 candidates examined during the past week, only eighteen failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for a period of three months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 21st inst., viz.:—

Bradley, George, Liverpool, of Guy's Hospital.
Clouting, J. R., Shipdham, Norfolk, of the London Hospital.
Coombe, R. G., Burnham, Essex, of Guy's Hospital.
England, George, Dudley, of the Birmingham School.
Godson, Clement, Barnet, of St. Bartholomew's Hospital.
Green, John, Dudley, of the Birmingham School.
Higgins, Charles, Hambledon, Hants, of Guy's Hospital.
Inches, E. B., M.D. New York, St. John's, New Brunswick, Canada, of the New York and King's College Hospitals.
Jackson, W., W., L.S.A., [illegible] St. Thomas's Hospital.
Jackson, W. F. M., Smethwick, near Birmingham, of the Birmingham School.
Jay, H. M., Chippenham, Wiltshire, of St. Bartholomew's Hospital.
Lake, G. R., Leamington, of St. George's Hospital.
Rudge, J. J., L.R.C.P., B.Sc. and B.A. Lond., Horsleydown, of St. Thomas's Hospital.
Ross, J. H., L.S.A., Brighton, of Guy's Hospital.
Rumsey, L. D. H., M.D. New York, St. John's, New Brunswick, Canada, of King's College Hospital.
Sharp, J. A., L.S.A., [illegible] Hospital.
Sharp, J. A., Maidstone, Kent, of Guy's Hospital.
Snow, H. L., St. Asaph, North Wales, of the Birmingham School.
Swain, Edward, L.S.A., Long Clawson, Leicestershire, of the Westminster [illegible]
Taylor, Frederick, Kennington, of Guy's Hospital.
Turner, G. E. W., Stockport, Cheshire, of Guy's Hospital.
Waters, A. J. G., Birmingham, of the Birmingham School.

It is stated that only three out of the twenty-six candidates failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their Hospital studies for the full period of six months.

The following gentlemen passed on the 22nd inst., viz.:—

Bennett, C. J., Cheltenham, of St. Bartholomew's Hospital.
Birt, George, Leamington, of the Birmingham School.
Bonnin, [illegible] St. Mary's Hospital.
Burroughs, B. P. B., Bristol, of the Bristol School.
Cooper, [illegible] St. Mary's Hospital.
Cooper, [illegible] Westminster Hospital.
Cooper, [illegible] School.
Derry, B. G., Notting hill, of St. George's Hospital.
Dickinson, F. W. E., Westminster Hospital.
Duke, Edwin, Dover, of Guy's Hospital.
Evans, [illegible] Hospital.
Evans, G. H., [illegible] School.
Griffith, Robert, Carnarvon, of the Glasgow School.
Gwyther, [illegible] Hospital.
Nash, W. H. K., [illegible]
Rumsey, W. H., [illegible]
Rumsey, [illegible] Hospital.
Salt, George, Great Dunmow, Essex, of the London Hospital.
Sanders, W. H. M., [illegible]
Thomas, [illegible] Hospital.
Wagstaffe, C. H., [illegible] Hospital.
Wagstaffe, Philip, Bristol, of St. Bartholomew's Hospital.

It is stated that only two out of the twenty-four candidates failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their Hospital studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 16, 1868:—

Carr, John, Scarborough.
Desvignes, Peter Hubert, Lewisham.
Grant, Edward John Mark, Isle of Dogs.
Lock, John Griffith, Tenby, South Wales.
McGregor, Alexander, Westerham, Cheshire.
Page, Edward Sutton, Solihull, near Birmingham.
Smith, Thomas Somerville, Sittingbourne.

The following gentleman also, on the same day, passed his First Examination:—

Robinson, Tom, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAKER, W. M., F.R.C.S.E.—Surgeon to the Royal General Dispensary, Bartholomew-close.

BARNES, HENRY, M.D. Edin.—Medical Inspector of Army Recruits for Carlisle and neighbourhood.

CLAPHAM, E., M.D., M.R.C.S.E.—Surgeon to the County Prison, Devizes.

DE STYRAP, J., L.K.Q.C.P.I.—Consulting Physician to the Montgomeryshire Infirmary, Newtown.

LANGDON, H. W., M.R.C.S.E.—Surgeon to the Devizes Dispensary.

MCGREGOR, Dr. DONALD.—Medical Officer to the Court Inglewood of the "Ancient Order of Foresters," *vice* Dr. Pearson, deceased, and on the 21st inst., Medical Officer to the Penrith Union Workhouse, Public Vaccinator and Medical Officer to No. 1 District of the Penrith Union, *vice* Dr. Pearson, deceased.

MASON, F., F.R.C.S.—Surgeon to the Royal Hospital for Diseases of the Chest, City-road.

THORNE, R. THORNE, M.B. Lond., M.R.C.P.—Physician to the Royal Hospital for Diseases of the Chest, City-road.

WALKER, J. W., M.D.—Surgeon to the County Prison, Spalding.

YEO, J. B., M.R.C.S.—Lecturer on Animal Physiology, King's College.

BIRTHS.

ASHLEY.—On April 18, at 28, Ladbroke-square, Kensington-park-gardens, W., the wife of Dr. Ashley, of a son.

GOGARTY.—On April 4, at Limerick, the wife of Dr. Gogarty, 52nd Light Infantry, of a son.

LICHTENBURG.—On April 15, at 47, Finsbury-square, the wife of G. Lichtenburg, M.D., of a son.

MASSY.—On April 14, at 17, Denmark-terrace, Brighton, the wife of R. T. Massy, M.D., of a daughter.

OLDFIELD.—On April 16, at 7, Cumberland-terrace, N.W., the wife of H. A. Oldfield, M.D., of the Bengal Medical Service, of a son.

SOUTHEY.—On April 1, at Colnbrook, Slough, the wife of A. J. Southey, F.R.C.S., of a daughter.

WEIR.—On April 12, at St. Munghos, Malvern, the wife of A. Weir, M.D., of a son.

MARRIAGES.

CRAMPTON—LAMBERT.—On April 15, at Neuchatel, Switzerland, P. Crampton, M.D., to Emma, third daughter of the Rev. A. L. Lambert, M.A., rector of Chilbolton, Hants.

EDWARDS—EAST.—On April 14, at the parish church, Kettering, T. Marsden Edwards, M.D. Lond., of Llansamlet, near Swansea, to Laura Emma, eldest daughter of Mr. Charles East, of Kettering.

MOLINEAUX—NEWMARCH.—On April 17, at All Saints, Hessle Hull, J. Molineaux, M.D., to Mary, fourth daughter of the Rev. H. Newmarch, B.A., vicar of Hessle.

POTTS—WEBSTER.—On April 14, at Lindale-in-Cartmel, Lancashire, W. Potts, F.R.C.S., of North Audley-street, Grosvenor-square, London, to Margaret, eldest daughter of the late G. Webster, Esq., of Lilley Howe, Grange, Lancashire.

PRICE—STEVENSON.—On April 16, at All Saints Church, Newington, J. L. Price, M.R.C.S., of Kettering, Northamptonshire, to Mary Eliza, younger daughter of the Rev. J. Stevenson, incumbent of the parish.

DEATHS.

HAMILTON, J. U. M., L.F.P. and S. Glasg., of Duncon, Argyllshire, on April 8.

HAMILTON, J., M.D., of Ballyfatton House, Strabane, on April 2, aged 58.

HEWGILL, A., M.D., of Repton, Derbyshire, on April 1.

WATTS, F. H., M.R.C.S.L., at sea, on board the P. and O. steamer *Nyanza*, on his return from Bombay, on April 12, in his 31st year.

VACANCIES.

DENTAL HOSPITAL OF LONDON, SOHO-SQUARE.—Assistant Dental Surgeon.

EARLSWOOD ASYLUM FOR IDIOTS, REDHILL, SURREY.—Medical Superintendent.

HALIFAX INFIRMARY.—Assistant House Surgeon; Dispenser.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.—House Surgeon.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—King's Professor of the Practice of Medicine.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.—House-Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Repton Union.—The Repton District is vacant; area 14,313; population 4,001; salary £[illegible] per annum.

Long Union.—Mr. Gregson has resigned the Longnor District; area [illegible]; population [illegible]; salary £40 per annum.

Leominster Union.—The Central District is vacant; area 15,695; population [illegible]; salary £47 per annum.

Tiverton Union.—The Cruxton District is vacant; area 19,771; population 2,[illegible]; salary £[illegible] per annum.

APPOINTMENTS.

Isle of Thanet Union.—William K. Treves, M.R.C.S.E., L.S.A., to the Margate District.

North Union.—Richard M. Williams, M.R.C.S.E., to the Second Central District.

Stratford-on-Avon Union.—William H. Clarke, L.R.C.P., L.R.C.S. Edin., to the Workhouse.

Warrington Union.—John W. Watkins, M.D. Edin., M.R.C.S.E., L.S.A., to the Newton District.

Wrington Union.—Henry Hayman, M.R.C.S.E., L.S.A., to the Stoke-Gifford and Tarvide Districts.

STATHAM DEFENCE FUND.—A meeting of the general committee of the Statham Defence Fund will be held on Thursday next, the 30th inst., at 5 p.m., at 13A, George-street, Hanover-square, in order to receive and consider the report of the executive committee.

FOUNDATION OF NEW PRIZES.—The Académie des Sciences has had added to its already rich list of prizes a bequest by M. Serres of 60,000 francs, for the purpose of instituting a triennial prize for embryology. Also Madame Poncelet, widow of General Poncelet, the great geometrician, has expressed her intention to honour her husband's memory by founding an annual prize of 2500 francs, which the Acad my will adjudge to the author of the best work on pure or applied mathematics, whether published in France or abroad.

SMALLPOX and typhus are raging at Tripoli. Among the recent victims is the Arab chief Georgi, well known for his munificent hospitality to European travellers.

INFECTIOUS DISEASES.—The Committee of University College Hospital have, through the liberality of the Hospital Carriage Fund, been placed in possession of a carriage for the conveyance of persons suffering from infectious diseases. The Committee, feeling that it may be of important service to the public by being used for the district, have determined that all persons requiring it, and who reside within a three-mile radius of the Hospital, may obtain it upon application to the clerk at the Hospital, and upon paying the actual expenses of hire.

AT a special meeting of the Governors of the Royal Berkshire Hospital, held Tuesday, April 14, R. Benyon, Esq., M.P., in the chair, Mr. F. A. Bulley, who had just resigned the office of Surgeon to the Hospital after thirty years' service, was unanimously elected Consulting-Surgeon to the institution. At the same meeting, Mr. O. C. Maurice, who had filled the office of Assistant-Surgeon, was elected one of the Surgeons to the Hospital.

AT a meeting of the Council of Queen's College held April 21, Lord Lichfield, the President, in the chair, the amalgamation with the Sydenham College having been completed, the following gentlemen were appointed Professors and Lecturers:—Anatomy: Descriptive and Surgical, Mr. C. J. Bracey, Mr. W. P. Goodall; Demonstrations, Dr. James Hinds, Dr. Thomas. Physiology: Dr. Norris, Mr. T. H. Bartleet. Principles and Practice of Surgery: Mr. O. Pemberton, Mr. F. Jordan. Principles and Practice of Medicine: Dr. Russell, Dr. Foster. Chemistry: Dr. Hill. Botany: Dr. W. Hinds. Forensic Medicine: Mr. Swain. Toxicology: Dr. Hill. Midwifery: Mr. Clay, Mr. Basset. Practical Chemistry: Mr. Anderson. Materia Medica and Therapeutics: Mr. John St. S. Wilders, Dr. Mackey. Clinical Midwifery and Diseases of Women: Mr. Berry. Diseases of Children: Dr. Jordan. Ophthalmic Medicine and Surgery: Mr. J. V. Solomon. Dental Physiology and Surgery: Mr. Howkins. Comparative Anatomy and Zoology: Mr. Savage. Classical Tutors: Rev. W. G. Cundy, Mr. W. Bates.

COLLEGIAL TRIENNIAL PRIZE.—The fortunate competitor for this prize, offered by the Council of the Royal College of Surgeons, has now the option of receiving it in the form of the John Hunter medal, executed in gold, and of the value of fifty guineas, or of the same medal executed in bronze, with an honorarium of fifty pounds. The dissertations for this prize must be delivered at the College before Christmas-day, 1870, and must be on the Anatomy and Physiology of the Organs of Taste and Smell in the Mammalia. In addition to the subjects for Jacksonian Prizes mentioned in *The Medical Times and Gazette* last week, it appears that there are two for the present year's competition, viz:—"Pyæmia after Injuries and Operations: its Pathology, Causes, Symptoms, Prevention, and Treatment; the dissertation to be illustrated by Cases and Drawings," and "Amputations of the Limbs; the various modes of Operation now practised, their relative advantages, and the methods of arresting Primary Hæmorrhage, and of dressing the Stump; the dissertation to be illustrated by Cases, Drawings, and Casts." The essays for the above subjects must be delivered at the College before Christmas-day next. It is not a little singular, and perhaps to be regretted, that the subject of the first-named Prize, "Pyæmia," is the same as offered for the Sir Astley Cooper Prize by the authorities of Guy's Hospital.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—A quarterly meeting of this Association will be held at the Ship Hotel, Charing-cross, on Wednesday, the 29th inst., at 7.30 p.m. After the report of the Council, Dr. Rogers, the President, will tender his resignation, and make a statement which may be expected to be interesting, as it will be the first opportunity he has had of referring to his own case since his compulsory resignation by the Poor-law Board. The meeting will be called upon to elect a new President, and to consider the proposed basis for the equalisation of the salaries of the Medical officers of the London District; the general order of the Poor-law Board imposing additional duties on workhouse Medical officers; and the circular letter of the Board (April 2, 1868) relating to the employment by Medical officers of assistants without legal qualification, etc. There can be no doubt as to the importance of these subjects, and we hope to see a large attendance of the Medical officers and their friends.

DISEASE AMONG HORSES.—A Dublin correspondent informs us that about the same time that cases of cerebro-spinal meningitis were occurring among the troops in the Royal Barracks, Dublin, several horses in a veterinary stable at Arbour-hill, near the Barracks and Military Hospital, were attacked by a disease presenting symptoms of some nervous lesion of obscure nature, the most prominent among these being a slight general paralysis. The treatment was stimulant and mercurial, and was more successful in its results than any yet employed in cases of cerebro-spinal meningitis in the human subject, as all the horses recovered. The coincidence is remarkable and to some extent interesting, though of course, in the absence of any more accurate knowledge as to the pathological causes of the symptoms, it would be very rash to assume that the disease was in any way allied to cerebro-spinal meningitis.

HOSPITALS IN PIEDMONT.—These are 119 in number, thirty-three being situated in urban and 116 in rural *comuni*, and altogether they supply about 6200 beds. According to the returns for 1861, there were admitted into all these Hospitals 92,644 patients during 1,406,713 days—*i.e.*, averaging fifteen days per patient. The total number of beds in the Hospitals and *hospices* are 14,047, and of these 12,040 are gratuitous, 186 semi-gratuitous, and 1821 by payment.—*Gazetta Med. di Torino*, April 13.

CONSUMPTION OF TOBACCO IN FRANCE.—The French people consume annually, as snuff, 7,699,471 kilogrammes (each kilo 2 lb. 3 oz. avoird.), representing a colonnade of thirty columns, each equal in size to the column of Vendôme. In smoking there are 18,440,919 kilos. consumed, which, as a compressed mass, would suffice for the construction of the Arc de Triomphe de l'Etoile, together with its foundations. Moreover, there are smoked 28,000 kilos. in cigars at 20 centimes each, measuring in length 638 kilometres, or about the distance from Paris to Bayonne; 63,000 kilos. in cigars at 15 c., measuring 1500 kilometres, or nearly from Paris to St. Petersburg; 178,000 kilos. in cigars at 10 c., measuring 3772 kilometres, or nearly from Paris to Teheran; and 2,734,585 kilos. [illegible] about twice round the world.—*Journal de Savoie*, Paris.

A RECOVERED SCALP.—M. Heine, in a lecture just delivered in Paris and reported in the *Revue des Cours*, in which he narrates a rapid visit he has recently made to the Rocky Mountains, recommending a similar excursion to his auditors in place of the worn-out Alpine and Pyrenean tours, relates the following anecdote. He says, while sleeping in one of the magnificent "palace sleeping cars" of the Great Western Railway, now extending to the Rocky Mountains, he quite forgot the Indians, who a few months before had placed obstacles on the line in order to overturn the train and then to pillage it. One of the persons injured in the conflict was a young *employé*, Tomkins by name, who was shot down and beat with the butt end of the musket and fell apparently dead. He was, however, seized by the Indians to get his scalp as a trophy. As the unfortunate man had the courage not to flinch during the scalping process, he got free with having to wear a wig in future. Even this did not become necessary, for he had the good luck to pick up his own scalp, which the Indians had dropped during their flight. M. Heine states that he verified the truth of this on the spot.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. Serjeant, B.A.—We are sorry we cannot accept your offer.

Alpha.—Apply to any respectable army tailor, who will give you every information. We believe about £100.

T. E. H.—The gentleman referred to is a duly registered Practitioner, and has been so for the last nine years.

Vaccine Lymph diluted with Glycerine.—In answer to an inquiry upon this subject we have to state that Geh. Med. Rath Muller's observations were noticed in our volume ii. for 1867, pp. 97 and 325, erroneously printed in the index of that volume pp. 27 and 235.

A Fellow.—Mr. Birkett did not vote, as stated by our contemporary, and the number is below the mark.

Cornu.—Professor Huxley has *not* resigned his chair at the College of Surgeons. The gentleman mentioned will not therefore succeed him; moreover, he is ineligible, not being a Member of that institution.

"Co-operative" Doctors.—We have been somewhat puzzled in our efforts to discover the relation in which a co-operative Physician stands to the long list of grocers, tailors, shoemakers, etc., who are the agents of the mutual assistance associations which are now known as co-operative. Will any of our readers help us to a solution of our difficulty? On the title-page of the prospectus of one of these associations we see a printed statement to the effect that the agents at the stores supply the articles of their respective trades at 10, 15, or 20 per cent. under ordinary prices; and further on we are struck with astonishment at beholding the name of one of our Professional brethren as Physician to the association. Now it occurs to us that a co-operative Physician is one who is prepared to dispose of his services at a reduction on the ordinary scale—that, in fact, he deducts 15 or 20 per cent. from his usual fee, and thus undersells less fortunate Medical men. But in the name of the honour and dignity of the Faculty, and in the cause of Medical ethics, we ask ourselves, Is there not some mistake somewhere? We believe that there must be, and we trust some of our correspondents may help us to discover it. In the meantime, we reserve the names of those who have placed themselves in what appears to us a very anomalous position.

Rotator.—When Wat Tyler was slain by Sir William Walworth, his body was carried into the Hospital of St. Bartholomew, and laid in the Master's Chamber.

SIR W. ADAMS, KT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you inform me of the date of the birth and death of a Sir William Adams, Knight, who was well known as an oculist? Is there a memoir of him in any publication? I am, &c. G. C. B.

CURE WANTED.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will any of your readers be good enough to inform me whether there is any successful treatment for Bubonic plague lately? I have a patient who has suffered from such for many years. Some of the leading specialists have been consulted, and kousso, ol. filicis, pomegranate bark, turpentine, etc., have all been tried, but, alas! in vain. I shall feel much obliged if any of your readers can suggest any mode of treatment likely to succeed. I am, &c. W. H.

HOSPITAL REFORM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly allot me a little space in your valuable journal? I have read [illegible] with great pleasure [illegible] Parkes [illegible] of teaching with the actual patients [illegible] I [illegible] Hospitals, p. [illegible]) I [illegible] and [illegible] I am, &c. E. OLIVER, M.D.

Dr. Jago's Case of Retained Placenta.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The singular case of the retention of a placenta for 123 days after a three months' fœtus had been expelled, as communicated by T. W. P. Jago, M.B. Lond., in the recent number of the *Medical Times and Gazette*, is one of considerable interest and importance, as it may lead to a better explanation of the true physiology of foetal development. The meagreness of the details (fortunately for the patient) requires much caution in speculating or attempting to explain how it occurred. I view it as having an important bearing on the development of the human fœtus in utero, as well as the probable state and condition of that organ.

The age of the lady (if it was her first conception) may have caused a suppression of the usual decidual lining of the uterus, and the consequent want of the uterine spongy cellular portion of the placenta to assist to involve the foetal chorion villi, and fix the fœtus to the uterine wall. It must be kept in mind that in normal gestation the fœtus is at first, when discharged from the ovary into the Fallopian tube, an automatic animal organism moving entirely free and independent of the mother either in the oviduct or uterus, and that it is nearly three months after conception before it is attached to the decidual surface of the uterus. In these circumstances I would suggest that this was a case of arrested development, not only of the fœtus (possibly twins), but of the decidua vera, owing to which there were no means to attach the fœtus or shut up the cervix; that, in its struggle for a hold, it was expelled before the completion of its third month; and that the mass which remained in the uterus so long was in reality at the same stage of development as its brother if a twin, or it was the placenta which is described as only weighing 3 oz.

I am inclined to consider what is described as the uterine hæmatoma was in reality the fœtal; and that the dense portion in the centre was either the abnormal condition, or the twin or the decidual modified vessels which had reached the fœtus four months previously by the placenta.

I am, &c.,

United College, St. Andrews. W. M.

COMMUNICATIONS have been received from—

Dr. Pearse; G. C. B.; Mr. W. Cholis; W. H.; Dr. Henry Coates, Mr. Frederick Sutton; Dr. Offeri; M. A. Mason, Dr. P. M. Caldwell, Alpha; Dr. Dudfield; Dr. W. Macdonald, Vigil, Mr. Francis Taylor; A. T. M., T. E. H.; Mr. W. J. Noad, Dr. Hallaran, Mr. J. V. Solomon; Dr. Wilks; Mr. T. M. Stone, Dr. Hughlings Jackson; Mr. J. Chatto; Dr. Yeld.

BOOKS RECEIVED—

Sussex County Lunatic Asylum Report—Thomson's Conspectus, by Dr. Birkett—Fenwick on the Stomach—Beveridge on Typhus in Aberdeen—Royal College of Physicians Report on Leprosy—List of British Butterflies—Norfolk Lunatic Asylum Report—Bamber on Tea—Hoblyn's Dictionary of Medical Terms, 9th edition—Philadelphia Medical and Surgical Reporter—Half-yearly Compendium of Medical Science—Williams on Cancer of the Uterus.

NEWSPAPERS RECEIVED—

Bridlington Free Press—Melbourne Age—Birmingham Daily Post—Parochial Critic—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 18, 1868.

BIRTHS.

Births of Boys, 1248; Girls, 1205; Total, 2453.

Average of 10 corresponding weeks, 1858-67, 1963·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	804	735	1539
Average of the ten years 1858-67	672·6	642·6	1315·2
Average corrected to increased population..	..	..	1447
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	..	12	4	2	9	6	1	..
North ..	618,210	4	7	6	3	16	8	4	..
Central	378,058	1	5	1	1	6	5	..	..
East ..	571,158	3	19	7	1	16	8	5	..
South ..	773,175	10	21	4	1	26	9	7	..
Total ..	2,803,989	18	64	22	8	73	36	17	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·908 in.
Mean temperature	45·7
Highest point of thermometer	62·5
Lowest point of thermometer	28·9
Mean dew-point temperature	40·4
General direction of wind	Variable.
Whole amount of rain in the week	0·10

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 18, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending April 11.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending April 18.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126645	40·1	2458	1441	1539	62·5	28·9	45·7	0·10	19
Bristol (City) . .	167487	35·7	111	75	84	..	..	..	..	..
Birmingham (Boro')	352296	45·0	277	171	163	65·3	27·8	45·0	0·14	14
Liverpool (Borough)	500676	98·0	420	266	278	59·9	33·4	46·2	0·19	19
Manchester (City) .	360855	81·8	268	208	†232	61·0	27·0	45·0	0·61	62
Salford (Borough) .	117162	22·7	82	59	68	61·5	27·8	44·1	0·55	38
Sheffield (Borough)	232362	10·2	176	122	111	64·0	26·5	44·6	0·17	17
Bradford (Borough)	108019	16·4	123	54	70	..	..	..	..	..
Leeds (Borough) .	256746	11·0	228	120	111	68·0	25·5	46·7	0·31	31
Hull (Borough) .	108269	30·4	99	50	44	65·4	23·0	44·2	0·26	36
Newcastl-on-Tyne, do.	127701	23·9	72	68	60	63·0	30·0	45·5	0·72	73
Edinburgh (City) .	177039	40·0	119	87	68	62·7	30·8	47·4	0·40	40
Glasgow (City) .	449868	88·9	146	262	285	58·8	35·5	45·5	0·30	30
Dublin (City and some suburbs)	319085	32·8	134	157	164	..	..	..	..	..
Total of 14 large Towns . .	6791680	34·7	5038	3163	3247	66·0	23·0	45·6	0·33	33
					Week ending April 11.	Week ending April 11.				
Vienna (City) .	(1863) 560000	..	..	..	412	..	..	48·4 ‡	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·908 in. The barometrical reading decreased from 29·90 in. at the beginning of the week to 29·85 in. by 3 p.m. on Monday, April 13; increased to 30·22 in. by 9 a.m. on Wednesday, April 15; and decreased to 29·66 in. by the end of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* Registration did not commence in Ireland till January 1, 1864; the average weekly numbers of births and deaths in Dublin are calculated therefore on the assumption that the birth-rate and death-rate in that city were the same as the averages of the rates in the other towns.

† The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

‡ The mean temperature at Greenwich during the same week was 45·7°.

APPOINTMENTS FOR THE WEEK.

April 25. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

Royal Institution, 3 p.m. Prof. Odling, "On Chemical Combination."

27. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Medical Society of London, 8 p.m. A New Uterine Speculum will be exhibited. Mr. Henry Lee, "On a Case of Syphilis communicated to a Wet Nurse," and "On Vaccino-Syphilitic Inoculation."

28. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 9 a.m.

Royal Institution, 3 p.m. Dr. M. Foster, "On the Development of Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Douglas Powell, "On Tubercular Pneumothorax." Sir G. D. Gibb, "Subglottic Gouty Disease of the Larynx."

29. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Metropolitan Poor Law Medical Officers' Association (Ship Hotel, Charing-cross), 7½ p.m. Quarterly Meeting.

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. Meeting.

30. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Royal Institution, 3 p.m. Prof. Odling, "On Chemical Combination."

May 1. *Friday.*

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

Royal Institution. Annual Meeting, 2 p.m. Mr. F. T. Palgrave, "How to Form good Taste in Art," 8 p.m.

Western Medical and Surgical Society, 8 p.m. Practical Evening for the Narration of Cases. Nomination of Officers for the ensuing Session.

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The NOTE ON PANCREATINE, *British Medical Journal*, Feb. 8, 1868, page 136, refers to SAVORY & MOORE'S preparation.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture XII.—Part I.

PODALIC BI-POLAR TURNING.—THE CONDITIONS INDICATING ARTIFICIAL TURNING IN IMITATION OF SPONTANEOUS PODALIC VERSION, AND ARTIFICIAL EVOLUTION IN IMITATION OF SPONTANEOUS PODALIC EVOLUTION. THE SEVERAL ACTS IN TURNING AND IN EXTRACTION. THE USE OF ANÆSTHESIA IN TURNING. PREPARATIONS FOR TURNING. THE STATE OF CERVIX UTERI NECESSARY. THE POSITION OF THE PATIENT. THE USES OF THE TWO HANDS.

The conditions indicating podalic turning are :—

1. Generally, those which are not suited for head-turning, or for the imitation of spontaneous evolution.

2. And more especially, shoulder-presentations of living children, in which the knees or feet are nearer to the os uteri than is the head.

3. Cases in which the shoulder has entered the brim of the pelvis, and especially those in which the arm is prolapsed.

4. Most cases in which the cord has prolapsed with the arm or hand, and some cases where the cord alone is prolapsed, and cannot be returned or maintained above the presenting part of the child.

5. Cases of shoulder-presentation in which the liquor amnii has drained off, and in which the uterus has contracted so much as to impede the mobility of the fœtus.

6. Certain cases in which it is desirable to expedite labour on account of dangerous complications, present or threatening —as hæmorrhage, accidental or from placenta prævia; convulsions. In these cases it is indifferent what the presentation may be.

7. In some cases of inertia, the head presenting, as in pendulous belly and uterus, where the head cannot well be grasped by the forceps.

8. In certain cases of face-presentation (see Lecture IV. part ii., *Medical Times and Gazette*, October 27, 1867).

9. Certain cases of minor contraction of the pelvis, or of the second degree (see Lecture V. part i., *Medical Times and Gazette*, November 9, 1867), which are beyond the power of the forceps, and which ought not to be given over to craniotomy.

10. In certain cases of morbid contraction of the soft parts.

11. As a part of the operation for the induction of premature labour in certain cases in which the pelvis is contracted, or other circumstances do not permit the spontaneous transit of the fœtus with sufficient ease and quickness to secure a live-birth.

12. In some cases after craniotomy, as the readiest mode of extracting the fœtus.

13. In certain cases of rupture of the uterus, the child being still in the uterine cavity.

14. In certain cases of death of the mother during labour, in the hope of rescuing the child, when Cæsarian section cannot be performed.

Here, then, is a wide range for the exercise of skill in podalic turning.

We will now discuss *what are the conditions necessary or favourable to turning in imitation of the spontaneous podalic version.*

These are: 1st. The pelvis must be capacious enough to permit the passage of the fœtus without mutilation. 2nd. The vulvo-uterine canal must be dilated, or sufficiently dilatable to permit of the necessary manipulations and of the passage of the fœtus. 3rd. The presenting part must not be deeply engaged in the pelvic cavity. 4th. The uterus must not be contracted to such an extent that the fœtus has been in great part expelled from its cavity, which is hence so diminished that the presenting shoulder or head cannot be safely pushed on one side into the iliac fossa. If the *shoulder is free* above the brim, the hand not descended, it will be easy to push it across to the nearest iliac fossa. If the *shoulder is movable*, even if the hand has fallen into the vagina, the operation is practicable, often not even difficult. If the *shoulder has been driven low down* into the pelvis, near the perinæum, the body being firmly compressed into a ball by the spasmodic contraction of the uterus, the child is almost certainly dead, and turning may be difficult or impossible without extreme danger to the mother. This is the indication for imitation of the natural spontaneous evolution.

Let us, first of all, take the more simple order of cases where turning is resorted to on account of symptoms indicating danger to the mother, as hæmorrhage from placenta prævia, the head presenting, and the cervix uteri sufficiently dilated. I take such a case first because it requires *complete turning*, and therefore best illustrates the mechanism of the bi-polar method.

It is important, at the outset, to bear in mind that turning —that is, the changing the position of the child in order to produce one more favourable to delivery—is one thing, and that extraction, or forced delivery, is another thing. Sometimes turning alone is enough, Nature then taking up the case and completing delivery. Sometimes extraction, or artificial delivery, must follow, and complement turning.

It will, however, give a more complete exposition of the subject to describe the two operations of turning and extraction continuously, assuming a case in which both are necessary.

Each operation again admits of useful division into stages or acts. *The several acts in turning are these.*—

1st Act.—The removal of the presenting part of the child from the os uteri, and the simultaneous placement there of the knees.

2nd Act.—The seizure of a knee.

3rd Act.—The completion of version by the simultaneous drawing down of the knee, and the elevation of the head and trunk.

These three acts complete turning.

The several acts in extraction are.—

1st Act.—The drawing the legs and trunk through the pelvis and vulva. An incidental part of this act is the care of the umbilical cord.

2nd Act.—The liberation of the arms.

3rd Act.—The extraction of the head.

Before commencing the operation, there are certain preparatory measures useful or necessary to adopt.

The question of *inducing anæsthesia* arises. It would partake too much of the nature of a digression to discuss at length the indications for chloroform as an aid in turning. I will do no more than glance at the principal points.

Chloroform is resorted to in the hope of accomplishing two objects:—The first is to save the patient pain; the second is to render the operation easier to the operator. The attainment of both objects is sometimes possible; sometimes not. It is not difficult to render the patient insensible; but you will not always at the same time make the operation more easy. It will commonly be necessary to push anæsthesia to the Surgical extent. If you stop short of this degree, the introduction of the hand will often set up reflex action, and you will be met by spasmodic contraction of the vaginal and uterine muscles, and perhaps by hysterical restlessness of the patient. You will have lost the aid of that courageous self-control which English-women pre-eminently possess. You must then carry the anæsthetic further, to subdue all voluntary and involuntary movements, and to lessen the reflex irritability of the uterus. Then, but not always, you will secure passiveness, moral and physical, on the part of the patient; the uterine muscles will relax; they will no longer resent the intrusion of the hand. These advantages are not, indeed, always obtained without drawbacks. A perfectly flaccid uterus indicates considerable general prostration, and predisposes to flooding.

The *state of the cervix uteri* has to be considered. It is one of the natural consequences of a shoulder-presentation that the cervix uteri is but rarely found dilated sufficiently for turning and delivery until after—perhaps long after—the indication for turning has been clearly present. A shoulder will not dilate the cervix properly. The same may be said of many cases where turning is indicated by danger to the mother from convulsions, hæmorrhage, etc. To wait for a well-dilated cervix would be to wait till the child or mother is dead. It follows therefore that we must be prepared to undertake the operation at a stage when the cervix uteri is only imperfectly dilated.

What is the degree of dilatation necessary? If the question

be simply one of turning, it is enough to have a cervix dilated so as to admit the passage of one or two fingers only, since it is not necessary in the class of cases we are now discussing to pass the hand into the uterus.

But since the ulterior object contemplated is delivery—with the birth of a live child, if possible—we must have a cervix dilated or dilatable enough to allow the trunk and head of the fœtus to pass without excessive delay. The modes of dilating the cervix artificially have been described in Lecture V. part ii. (*Med. Times and Gaz.*, November 30, 1867). It is sufficient here to call to mind the two principal modes—viz., by the hydrostatic dilators and by the hand. The water-bag properly adjusted inside the cervix, if labour has begun at term, will commonly produce an adequate opening within an hour. Sometimes the fingers alone will succeed as quickly. Quite recently, in a case where the head presenting could not bear upon the cervix to dilate it because of slight conjugate contraction, I expanded it by the fingers sufficiently to admit the narrow blades of Beatty's forceps within a few minutes. The instrument, however, was not powerful enough to bring the head through. I therefore turned and made the breech and trunk complete the dilatation. The head required considerable traction to bring it through the narrow conjugate; but the child was saved. At the beginning the os barely admitted one finger; yet the patient was delivered within an hour. But we cannot always proceed so quickly. Nor is it commonly possible to effect by artificial means that complete dilatation which is required to permit the head to pass freely.

The average obstetric hand will easily traverse a cervix that is too small to allow the head to pass; so that after all, even in head-last labours, as in head-first labours, the head must generally open up the passages for itself. What we have to do is to take care that the parts shall be so far prepared when the head comes to be engaged in the cervix that the further necessary dilatation may take place quickly, for this is the stage of danger to the child from compression of the funis between the os uteri and the child's neck. The management of this stage will be described further on. It is enough now to point out that a cervix uteri expanded so wide as to admit of three fingers manœuvring without inconvenience is *enough for turning* under the circumstances of the case we have assumed.

The general rule of *emptying the bladder and rectum* applies even more strongly to turning than to forceps or craniotomy operations.

What shall be *the position of the patient?* I have generally performed the operation of turning under whatever circumstances, the patient lying on her left side. It is of importance, I think, not to raise alarm in the patient or her attendants by adopting any great departure from the usual rules of the lying-in chamber. To place the patient on her back involves very considerable, even formidable preparations. The patient must be brought with her nates to rest on the very edge of the bed; she must be supported at her head; and two assistants must hold the legs. Still, there are cases in which this position may be preferable or unavoidable. There is another position, also in some cases useful—the knee-elbow position. But this precludes the use of chloroform. We may obtain all the necessary facilities by keeping the patient on her left side. The nates must be brought near the edge of the bed; the pillows are removed so as to allow the head and shoulders to fall to the same level as the nates. The head is directed towards the middle of the bed, so that the operator's arm may not be twisted during manipulation; the knees are drawn up; and the right leg is held up by an assistant, so as not to obstruct or fatigue the operator's right hand, which has to pass between the thighs to work on the surface of the abdomen.

The *presence or absence of liquor amnii in the uterus* is a matter of accident. If it be still present, so much the better; but you must be prepared to act all the same if it be not there. It is needless to state that the child will revolve more easily if it be floating in water; but it must not only be made to revolve; you have to seize a limb. At some time or other, therefore, the membranes must be ruptured. What is the best time to do this? If you are proceeding to turn in the old way—that is, by passing the whole hand into the uterus before seizing a foot—it is an advantage to follow the plan recommended by Peu of slipping the hand up between the uterine wall and the membranes until you feel the feet, and then to break through and seize the limbs. During this operation the arm, plugging the os uteri, retains the liquor amnii, and on drawing down the legs, the body revolves with perfect facility.

But if you are proceeding to turn by the bi-polar method, with a cervix perhaps imperfectly opened, the membranes must be pierced at the os. In this case you may perhaps accomplish the first act in version—that is, of removing the head or shoulder from the brim, and of bringing the knees over the os whilst the membranes are intact. This you can try first, only rupturing the membranes when you are ready to seize the knee. But sometimes an excess of liquor amnii imparts too great mobility to the child; you are unable to fix it sufficiently to keep the pelvic extremity steady upon the os; it will bound away as in *ballottement*, the moment you touch it through the os. In such a case it is better to tap the membranes first, and *allow a part of the liquor amnii to run off*. While doing this you should keep your fingers on the presenting part to ascertain how its position and mobility are being influenced by the escape of the waters and the contraction of the uterus, so as to seize the right moment for proceeding.

Now, if you assent to what I have stated, you will find that you are committed to *the use of your left hand as the more active agent* in the operation. You want the right hand to work outside on the abdomen; therefore, the left hand must be introduced into the vagina. It is a case where ambidexterity is eminently required. The left hand in most people is smaller than the right. The patient lying on her left side, the left hand follows the curve of the sacrum far more naturally than the right. It meets the right hand outside, the two working consentaneously with comfort, involving no awkward or fatiguing twisting of the body. Moreover, in the great majority of cases the anterior surface of the fœtus, and consequently its legs, are directed towards the right sacro-iliac joint—that is, inclining backwards and to the right, so that the left hand passed up in the hollow of the sacrum will reach the legs with the utmost convenience. I strenuously advise every young man who is preparing for Obstetric Surgery to put his left hand into training, so as to cultivate its powers to the utmost. There are a thousand ways of doing this, and I hope it will not be considered idle to mention some. In all athletic exercises or games requiring manual skill, use the left arm as well as the right. It is an excellent practice to dissect with the left hand. Shave the right side of the face with the razor in the left hand; use your toothbrush with the left hand; and, if you now and then come to grief through left-handedness, think how much less is this evil than injuring a woman or breaking down in an operation.

Well, all things being ready, we will proceed to the operation

ORIGINAL COMMUNICATIONS.

ON ANIMAL-PARASITE DISEASES OF THE SKIN.

By BALMANNO SQUIRE, M.B., F.L.S.,
Surgeon to the West London Dispensary for Diseases of the Skin.

During the present century the knowledge of cutaneous diseases has progressed very considerably. From the nosology of Willan, who classified diseases of the skin after a purely arbitrary fashion, we have advanced to the position of being able to classify at least some of the diseases of the skin according to their natural affinities, and now attach less diagnostic importance to the determination of the elementary anatomical lesion (papule, vesicle, or pustule) than to the recognition of certain other characters on which we have learnt to place more reliance as guides to prognosis and treatment.

We care rather to know, for example, whether a given case of cutaneous disease be syphilitic or cryptogamic, than to know whether it be vesicular or pustular. We can arrange at all events a part of the chaos of cutaneous disease under definite headings, which are indications of the cause, nature, and appropriate treatment of the eruptions that are included under them. But these headings are still few in number, and the great mass of morbid conditions of the skin remains still unprovided with any satisfactory system of classification. Until our knowledge of cutaneous pathology has become very considerably augmented, this must continue to be the case.

The object of the present communication is to aid in the establishment of an additional heading which shall embrace a natural order of cutaneous diseases.

The very few "orders" that have already been established on a permanent basis may be thus enumerated—

Syphilitic Diseases of the Skin.
Sebaceous Diseases of the Skin.
Vegetable-Parasite Diseases of the Skin.

To these we propose to add—

ANIMAL-PARASITE DISEASES OF THE SKIN.

It is known, and has long been known, that there is at least one eruption which is essentially an animal-parasite eruption—viz., scabies. It is also well known that the acarus scabiei is not the only kind of animal parasite that infests the human skin, but that there are various species of pediculi or lice, which are by no means scantily distributed amongst the mass of mankind.

We maintain, however, and shall endeavour to prove, that the important part played by lice in the production of cutaneous disease has never been duly appreciated; that the character of the cutaneous lesions produced by their presence has never been satisfactorily ascertained; and that considerable light may be thrown on the pathology and treatment of certain common and important diseases of the skin by an investigation of the effect produced on the skin by the presence of pediculi on its surface.

We were first led to these investigations by a desire to arrive at some satisfactory plan of dealing with one of the most tormenting and intractable of all cutaneous disorders. We thought that no better task could be set to himself by a student of cutaneous diseases than that of finding out, if possible, how to cure prurigo.

The brief but vivid description of this disease, given by Sir Thomas Watson in the latest edition of his "Principles and Practice of Physic," which may here be quoted, will bring to mind how severe a disorder prurigo is, and his remarks on the treatment of it will show how difficult a disease it is to treat. He says:—

"Prurigo—itching—is a cutaneous affection bearing some analogy to urticaria, at least in the sensations which accompany it. And a most terrible and melancholy affection it often proves to be. Sometimes the parts of the skin which are the seat of the itching do not present any perceptible deviation from the condition of health; but in the majority of instances you will find, upon close inspection, that they are covered with papulæ, which are nearly of the same colour with the skin itself. Willan, therefore, places prurigo in the order of papulæ. He describes several varieties of this troublesome complaint: prurigo *mitis*, prurigo *formicans*, prurigo *senilis*. The torment experienced by patients suffering under the severer forms of the malady is scarcely describable; they scratch and tear themselves incessantly till the blood flows, their sleep is broken, and their lives are rendered perfectly miserable. Sometimes the itching is diffused irregularly here and there over the surface, sometimes it affects the extremities only, and frequently it has a still more limited habitat, occurring around the anus, when it is called prurigo *podicis*; or on the scrotum, prurigo *scroti*; or, worst form of all, the prurigo *pudendi muliebris*. All these forms of prurigo are apt to be aggravated by heat and by exposure to the air; they are, therefore, especially distressing when the patient undresses and goes to bed. The scratching tears away the summits of the papulæ, and some watery fluid mixed with blood escapes and concretes into small thin black scabs. In the prurigo formicans, the itching is combined with other painful and disagreeable sensations, which different patients describe in different terms; the feeling is like the creeping of ants or the stinging of insects, or as if hot needles were thrust into the skin. The prurigo senilis, occurring, as that name implies, in old persons, is usually very obstinate, and often effectually destroys all comfort for the rest of the patient's life."

Proceeding to the treatment of prurigo, Sir Thomas continues:—

"In such cases as I have now been mentioning great care should be taken thoroughly to cleanse the surface of the body, and the diet should be rigidly plain. All kinds of rich sauces, hot condiments, pickles, and indigestible substances should be peremptorily forbidden. Various local applications have been praised, but they are in most cases used in vain—vinegar, lime water, decoction of dulcamara, lotions composed of prussic acid in an emulsion of bitter almonds, a dilute solution of creasote, decoctions of stavesacre and of digitalis, ointments containing mercury, tar ointment, and a hundred others. In one instance lately, where the ingenuity of another Practitioner had been fruitlessly exhausted, I was fortunate enough to effect perfect relief by smearing the itching surface with an ointment containing a small quantity of aconitine. Mr. Gabb has found a weak dilution of the liquor sodæ chlorinatæ very serviceable. Of internal remedies, sarsaparilla, alkalies, arsenic, the iodide of potassium, dulcamara, are the most hopeful. When these means fail, opium is our best, and, indeed, our only resource."

These remarks apply only to general prurigo—that is to say, to the prurigo which "is diffused irregularly here and there over the surface."

"The local forms of prurigo," as Sir Thomas says, "are frequently connected with local disease, and are most likely to be relieved by measures directed against the primary disorder."

Dr. George B. Wood, whose work on "The Practice of Medicine" occupies a position in America corresponding to that of Dr. Watson in this country, after remarking that neither lichen nor prurigo is contagious, quotes Willan thus:—"Dr. Willan says that in its milder form [prurigo] is sometimes ultimately converted into contagious scabies, but this is extremely improbable; and when the latter affection has supervened, it has most probably arisen from causes independent of the previously existing prurigo." Speaking further on of the prurigo senilis of Willan, he remarks that "another distinguishing feature is its tendency to generate pediculi, which are sometimes very numerous and troublesome."

This property possessed by prurigo senilis—viz., that it is apt occasionally to "generate" pediculi—has been long known. It was known to Willan; it was portrayed by Alibert, who had an enormous louse figured in the margin of his coloured illustration of prurigo. But so little importance is attached to this "consequence" of prurigo, which has been regarded merely as a disgusting accidental result of the disease, that, as we have already seen, even so accurate an authority as Sir Thomas Watson does not consider the circumstance worth mentioning.

As a first step in the investigation of prurigo, we proceeded to ascertain whether the cases of prurigo which "generated" pediculi differed in any respect from the cases of prurigo which did not generate pediculi, so that, if any difference should be established, a division of the disease into two species might be made, and either species investigated separately.

We had little hope that we should be able to discover anything which had escaped the notice of previous observers, who, one and all, pronounced the pediculi which had been occasionally noted in cases of prurigo to be a mysterious and accidental accompaniment of a disease which often occurred without them. But we were astonished to find, after the investigation of a very large number of cases of prurigo, that they were all associated with pediculi. This led us to think that since it appeared that no case of general prurigo could exist without the presence of pediculi, it was as likely that they should be the cause as the effect of the disease.

On comparing the appearances presented by an acknowledged and familiar louse-eruption—viz., that produced by the pediculus pubis—with the skin-lesions present in prurigo, it became the more probable that the latter was purely a louse eruption. On observing what situations were usually affected by the eruption, it proved that these corresponded to the situations chiefly occupied by the lice.

On a general consideration of the phenomena of the disease, it seemed that what had before appeared obscure and anomalous in its history became clear and reconcilable with ascertained facts. The disproportion of the objective to the subjective symptoms of the disease—so very much irritation and yet so little eruption—the mysterious sensations of prickling as if insects were biting the skin, and of formication as if ants were crawling over it, became for the first time intelligible. The inveteracy of the disease, its preference for one part of the body rather than another, Willan's observation about its being "sometimes ultimately converted into contagious scabies"—all became clear.

Finding from our researches into the pathology of prurigo that the body-louse, like the *acarus scabiei*, was the cause of a specific contagious eruption, we were curious to ascertain whether the head-louse also might not be concerned in the production of some eruption *sui generis*. The result of our investigations into this latter matter went to prove that such was the case.

Having once established satisfactorily the character of the skin-lesions that were essentially dependent on the presence of the one or the other variety of louse, we were astonished to find how large a proportion of public skin-disease practice is composed of cases of louse eruption.

If scabies be considered an important disease of the skin, and one deserving of much attention, louse disease is infinitely more so. The one is as fashionable a disease in unfashionable quarters as the other; but louse disease is by far the severer

affliction of the two. The pictures drawn in text-books of the tortures suffered by the unhappy subjects of prurigo are not exaggerated accounts, and prurigo is merely a variety of louse disease. So little is known of this department of dermatology, and so much does it concern all those who have to deal with Hospital out-patients, that we willingly consented to summarise here the results of our investigations.

A great deal that is interesting enough has been written of late on the subject of vegetable-parasite eruptions; but these, although often obstinate, are but of exceptional occurrence. Of animal-parasite diseases, however, it may be said that they make up almost a majority of the cases of cutaneous disease.

However little the pathology of louse eruption may be known even in the present day, it is certain that it must be a very ancient disease. Nits are to be found on the scalp-hair of Egyptian and also of Peruvian mummies. Most people reading in the book of Exodus that "Aaron stretched out his hand with his rod, and smote the dust of the earth, and it became lice in man," contemplate only the loathsomeness of the plague with which the Egyptians were visited, but the torture occasioned by it must have been a much more terrible infliction even than its loathsomeness.

Ambrose Parè, whose ideas on the subject appear to have been especially vague, supposes that Herod, the King of Judæa, died in some way or other from the effects of lice. But if we are to take the account given in Acts xii. 23, from which, we presume, Parè derived his information, this would hardly appear to have been the case. Parè also lent his authority to the statement that lice would breed in any part of the body, even in the blood. This is rather too much. But if we cannot take Parè's word for it that King Herod died of lice, it is almost as strange to be told as we are, on much more accurate authority, that an English nobleman of the highest grade, living in the present century, was infested with lice, and could in no way get released from them until death put an end to the prurigo which had generated them. But this case, as we shall see, admits of explanation.

(*To be continued.*)

PARALYSIS OF THE LOWER EXTREMITIES AND RIGHT ARM—TEMPORARY LOSS OF SIGHT—RECOVERY.

By C. MACNAMARA,

Surgeon to the Calcutta Ophthalmic Hospital.

Tarachand, æt. 14, a Hindoo lad of robust appearance, was admitted into the Calcutta Ophthalmic Hospital January 24, 1868. On November 3, 1867, he fell, and struck his head against a beam, but the accident was followed by no injurious consequences. Some five or six days afterwards he was attacked with quotidian intermittent fever, to which he had been subject for some years past, as well as to enlargement of the spleen. The ague continued for a week, and then disappeared under the influence of such simple remedies as he had been accustomed to employ under similar circumstances. Immediately after the fever left her, numbness and inability to move the right arm and leg came on; the left leg on the following day was affected in the same way, so that she entirely lost the use of the lower extremities, without the existence of tingling pain or other abnormal sensations in the limbs to mark the advent or progress of the disease. As the paralysis increased she experienced advancing dimness of vision. The patient has never suffered from either hysterical or other fits. There is no evidence of her having been affected either by inherited or acquired syphilis. She has never been salivated.

At the time of her admission into Hospital, on January 24, she had completely lost voluntary power over the lower extremities and the right arm. The sensation in these limbs, though blunted, was not destroyed; marked reflex action existed in the legs; the muscles of the affected limbs were flaccid, and hung down precisely as though they had belonged to a dead body. The patient possessed feeble, though decided, voluntary power over the left arm. Her pupils were dilated and insensible to light, and she was almost completely blind, being only able to recognise the existence of a bright light held before her face in a dark room.

On examining the eyes with the ophthalmoscope we found the optic papilla swollen and hazy (woolly); evidently a considerable amount of serous effusion had taken place into its nervous structure, and also into that of the retina immediately surrounding the papilla; but, with the exception of this œdematous state of the parts, the fundus of each eye was perfectly healthy. There was an entire absence of all symptoms of optic neuritis or inflammation of the retina. Her voice and mental faculties were unimpaired. There was no paralysis of the muscles of the face, of respiration, or, in fact, of any part of the body, with the exception of those above indicated, nor was there evidence of disease of the heart or kidneys; the spleen was enlarged; the catamenia had appeared, and, though scanty, were regular.

The patient was ordered a generous dietary, and a mixture containing strychnine, arsenic, and iodide of potassium. She continued this treatment throughout her stay in Hospital.

A week after admission some improvement had taken place in her condition, and, without going into details, it may be mentioned that she gradually regained the use of her limbs, her eyesight was restored, and she left the Hospital absolutely cured. Within five weeks of her admission she was able to run about the ward, and count No. 1 dots at ordinary distances; the haziness of the optic papilla had entirely cleared away and the fundus of the eye was perfectly healthy.

Remarks.—This is an example of a class of cases by no means of uncommon occurrence among the natives of this country, and depending apparently upon miasmatic influences effecting alterations in the blood, and thereby introducing local hyperæmia and serous effusion into various organs. I repeatedly meet with cases of impaired vision arising from this cause, the hyperæmia being confined to the retina; its nervous structure becomes hazy and infiltrated with serum, and in some instances is detached from the choroid. It would have been difficult to form a correct diagnosis in this case unless by the aid of the ophthalmoscope. The complete paralysis of the lower extremities and of the right arm, the left being unaffected, pointed to the existence of that rather anomalous group of symptoms described by Dr. Todd as hysterical paralysis, but the state of the eyes cleared up any doubts on this point. The symptoms presented by our patient at the time of her admission into Hospital pointed to serous effusion into the optic thalami and corpora striata similar to that noticed in the optic papilla, the pressure thus caused on these important nervous centres interfering with the volition of the patient over the affected limbs. The reflex action was only slightly impaired, and the patient had complete control over the bladder; the functions of respiration and deglutition were perfect, so that, as far as the trunk was concerned, she simply suffered from inability to move some of her limbs, the centres of volition, but not the will, evidently being affected. The patient, however, was absolutely blind; the pupils were widely dilated, the functions of the retina being destroyed for the time being. The ophthalmoscope showed the cause of the loss of vision by revealing to us the existence of extensive serous effusion into the optic papilla and nervous matter of the retina immediately surrounding it, but there was no evidence whatever of hyperaction in the part; the circulation through the central artery and vein of the retina was unaffected; there was no hæmorrhage or indication of optic neuritis; so that one was able to form a favourable prognosis, not only as regards the recovery of vision, but also of the paralysis—the condition of the optic papilla, and the history of the case, leading us to conclude that the loss of voluntary power over the affected limbs must depend upon a similar cause to that which induced the loss of power in the retina, and hence to arrive at the conclusion above indicated as to the seat of the effusion in the brain. The correctness of our prognosis was verified by the subsequent history of the case.

We regret to announce the death, on February 22, of Dr. Bowman, of Montreal, at the early age of forty-six. Dr. Bowman was well known as editor of the *Canada Lancet*, which paper he conducted for some years with considerable ability.

Dr. Beatson, Inspector-General of Army Hospitals, having just returned from India, where he had completed his tour of service in the important appointment of principal Medical officer of British troops, having been relieved by Dr. Muir, C.B., is about to undertake the Medical supervision of the Royal Victoria Hospital at Netley. Dr. Beatson's numerous friends will be glad to hear that he has returned in good health, notwithstanding his arduous duties and long residence in India.

ON THE TREATMENT OF TUMOURS BY ELECTROLYSIS.

By JULIUS ALTHAUS, M.D., M.R.C.P. Lond.,
Physician to the London Infirmary for Epilepsy and Paralysis.

(*Concluded from page* 442.)

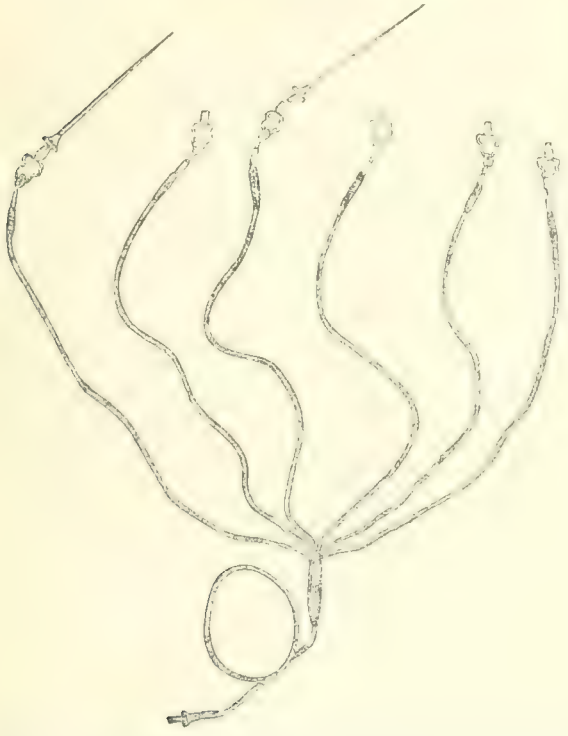
I will now say a few words about the instruments which I employ for conveying the galvanic current into the depth of the tissues. The prototype of all is a fine needle of gold or

Fig. 2.

gilt steel for the negative pole, the circuit being closed by placing a moistened sponge connected with the positive pole outside on the skin.

Most of the other instruments are modifications of the needle. I use conductors from which two, four, six, and eight needles are made to branch off, to suit the requirements of the different cases as they present themselves. Sometimes circular-shaped conductors are required. All these instruments are made of gold or gilt metal, and insulated by ebonite. The conductor, however, which is most universally useful is the *serres-fines conductor*, which allows the introduction of

Fig. 3.

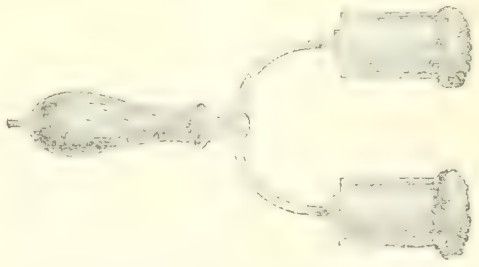


from one to six needles *ad libitum*, and in any direction that may be required. It consists of a conducting wire, which, at its end, is made to branch off into six conducting wires of equal diameter, the ends of which are connected with serres-fines, by means of which the heads of the needles may be grasped after their introduction into the substance of the tumour. Single needles are introduced more readily into the depth of the tissues than connected rows of needles; besides which, by means of this instrument, the needles may be introduced in any direction that may appear most suitable, which, with fixed rows of needles, is not so easily obtainable.

The introduction of needles through the skin must always be unpleasant to the patient; I, therefore, as a rule, employ the ether spray before introducing the needles. Some patients are extremely intolerant of the ether, and represent it as very unpleasant, not so much, perhaps, at the time of its first application as afterwards, in the period of reaction, when the frozen skin returns to its previous condition. Sometimes the skin remains red and peels off after a single application of ether, but in most cases the spray is well borne. I should, however, be very glad to have at my disposal some other ready means for rendering the skin insensible, and which would be less irritating than ether. I am informed that in America a substance called rhigolene is now extensively employed for producing local anæsthesia, and is said to be free from the defects inherent to ether; but, as this also acts by producing intense cold, I cannot see why it should have any advantage over ether, for it is not so much the peculiar kind of hydrocarbon employed as the intense cold which produces the irritation.

The application of the galvanism itself is not painful, even if a considerable power is used. It is, however, important that we should begin with low power, and only slowly increase it. By thus proceeding, the internal parts are gradually benumbed, and what might at the first moment have been felt as a severe shock gives no unpleasant sensation whatever, if this simple precaution is adopted. The benumbing effect of the galvanic current is, however, only produced if the current is applied internally; outside, where the positive pole is used, a sensation of warmth and slight pricking is felt during the whole time of the application. For such cases as require a high power, and in which the sensation of heat at the positive pole might become unpleasant, I have had an instrument constructed where two sponge-cups are made to branch off from the positive conductor, so that the electricity of the positive pole does not arrive on the skin in a concentrated, but in a diluted, form.

Fig. 4.



The force and rapidity with which the disintegration of tumours is brought about, are directly proportionate to the electro-motive force which is employed, and to the softness and vascularity of the structures acted upon. A powerful battery has therefore more effect than a weak one; while amongst tumours, bronchocele, nævus, and the allied kinds are more favourable for this treatment than lipoma, enchondroma, and osseous tumours.

The entire number of cases I have up to the present time treated by electrolysis amounts to sixty-three; amongst these there were fifty-two non-malignant, and eleven of the malignant kind.

Eleven cases of *nævus* have come under my care. Of these, seven were cured; one patient was only seen once, and not heard of again; one discontinued the treatment after three applications before any appreciable result was obtained; in the remaining two cases, in both of which the tumours were very large, these were reduced in size, but not entirely removed. I believe that in these latter cases a continuance of the treatment would have resulted in a cure.

All these tumours were seated on the face or scalp, and they all occurred in children under 14 years of age. In one of these, where the nævus occupied the whole right cheek, the growth was so extensive that both Sir William Fergusson and Mr. Paget, who were consulted previous to the patient coming under my care, declined to interfere with it. In another case, where the nævus was seated on the lower eyelid, Mr. Dixon had been previously consulted, and advised non-interference with the growth, on account of its position and the delicate health of the patient, although the tumour was a source of great annoyance. Neither an awkward position, nor extreme size, nor delicate health, need be an objection to the use of electrolysis, which I believe to be suitable for all cases of nævus indiscriminately.

Of *bronchocele* I have had eight cases under treatment. They were all instances of simple hypertrophy of the thyroid body, and in none of them was it possible to make out any cysts. In several of these cases Mr. Paget, Mr. Prescott Hewett, and Sir William Fergusson had been previously consulted, and had pronounced any operation to be inadmissible. Most of these tumours were of an extreme size, and on that account required a long continuance of the treatment. One of the patients discontinued the treatment before any perceptible result was obtained; one was improved, two cured, and four are still under treatment. A peculiar interest attaches to one

of these cases, as a microscopic examination of the tumour had been made during life, and its nature, therefore, was made out with certainty. This patient, a lady aged 42, after having consulted the most eminent English Surgeons, who all advised her to let the goître alone, went to Paris to have the opinion of Messrs. Trousseau and Nélaton on her case. Professor Nélaton punctured the tumour with a trocar, and submitted the portion brought away by it for examination to that able microscopist, M. Robin, of Paris. The following is the report of this gentleman:—

(*Translation.*)

"The pathological specimen sent to me by Professors Trousseau and Nélaton consists exclusively of the tissue proper of the thyroid body, the closed vesicles of which are all affected with cystic dilatation, which has enlarged their diameter twice, or at most four times more than it is in the normal condition; with a remarkable attenuation of their external coat, while the epithelial layer is much thickened. The layers of fibrous tissue which separate the lobules of closed vesicles from one another are still recognisable, although attenuated. There does not exist in this tissue any pathological element beyond the modification of the tissue proper of the thyroid body above referred to.

(Signed) "Ch. Robin."

This tumour, with which no Surgeon would meddle, is shrinking fast under the influence of the electrolytic applications, and I have no doubt that it will, in course of time, be entirely removed.

Of *sebaceous tumours* on the scalp and face, I have treated sixteen cases. Of these, fifteen were cured. One patient, the sixteenth, discontinued the treatment before the whole tumour was removed, being obliged to leave town suddenly, and subsequently wrote to say that she had for some time suffered from considerable irritation and discharge from the remaining portion of the tumour. I feel confident, from what I have seen in the other fifteen cases, that this would not have occurred if the patient had followed the treatment until the entire removal of the tumour.

Of that hypertrophy of the skin which Mr. Wilson calls *ecphyma mollusciforme*, I have treated six cases. Two of these were seated on the upper eyelids, three on the cheek, and one on the back of the neck. They were all successful, with the exception of one case where only one application was made.

Of kelis I have treated one case. It was a large flat tumour on the chest of a lady, which had come on after repeated blisterings during an attack of pneumonia. As I have only seen the patient once, I cannot say what was the result of my application.

Lipoma does not appear to yield very readily to the electrolytic treatment. It can be cured with a great deal of perseverance, but the time necessary for it is considerable. I have had three cases of it under my care. One was of the size of half an orange, and seated on the left false ribs of a boy, aged 13, and was very nearly cured by twenty-two applications. Another was seated at the back of the left ear of a gentleman aged 52, and was 3½ in. long and 2 in. broad. In this case, eight applications produced no perceptible effect in reducing the size of the tumour, and as the punctures became somewhat sore and inflamed, and pain and swelling were produced, the patient did not follow up the treatment. I should mention that in this case Sir William Fergusson had refused to operate on account of the delicate health of the patient. In the third case, the tumour was seated on the back of a girl aged 16, who had also a high degree of lateral curvature of the spine. It was 4 in. long and 6½ in. wide. There being no perceptible effect after eight applications, which were made in April last, I discharged her. I saw her again at the commencement of October, when she informed me that about two months after she had discontinued the treatment a gathering came on, the skin at the lower part of the tumour gave way, and a considerable quantity of yellow matter was discharged, after which the tumour was reduced in size, it being now only 3 in. long and 5½ in. wide. As no injury preceded this gathering, which was not accompanied with any pain or febrile symptoms, it is to be assumed that the breaking up of part of the fatty tumour was due to the electrolytic applications. Mr. Clark, of Clifton, has written to me to say that he has used the treatment in a case of a large fatty tumour 1 ft. 7 in. in circumference, and 10 in. across, and after five applications with three needles, at a week's interval, it had lessened 2 in. in circumference and 1 in. across.

I have cured a *cyst* of the lower lip in a gentleman aged 53, and a *ganglion* on the wrist of a lady aged 30, by the same method. I have also treated two cases of *fibrous tarsal cysts*, which yielded well to the treatment.

Of *glandular tumours* I have treated three cases, all of which were very much improved, but none continued the treatment until the entire removal of the enlargement.

One case of *neuroma* was much improved by two applications, the last of which was, however, followed by a certain amount of inflammation, owing probably to the current having been applied rather too long at the second sitting.

The total result of the treatment of 53 cases of non-malignant tumours is, therefore, 32 cured, 14 improved, and in 6 no result, or, if there was any result, it is not known; that is, expressed in percentage, 62 per cent. were cured, 26 improved, and in 12 there was no result, or result unknown. Almost all the unsuccessful cases occurred in the commencement of my electrolytic practice, when the method of procedure had not been so well developed as it is now.

In *malignant disease* the results of the treatment are, as might be expected, far less favourable. Wherever the cancer is one of considerable size, and growing rapidly, relief may be obtained, and the further growth of the tumour may to a certain extent be checked, by electrolysis, but I have not hitherto obtained a cure of such patients. In two cases of scirrhus of the breast, where the tumour was only of the size, in one of a nut, and in the other of a nutmeg, the swelling has entirely disappeared. For the healing of an open cancer, the treatment seems to answer well; but I must say that in no case of malignant disease have I ever trusted to electrolysis alone, but have prescribed powerful remedies to be taken internally, for thoroughly modifying the constitution of the patient. Perhaps in course of time a mode of more continuous application of the electrolytic process may be discovered, by means of which we may be able to starve out even malignant tumours with more success than has hitherto been obtained. The facts that the peculiar lancinating pains of cancer generally disappear soon after the commencement of the treatment, and that, even in rapidly growing cancers, the growth is often checked by it, seem to show that, by steadily working in the same direction, a remedial agent so powerful as that of electrolysis may yet be found to be instrumental in overcoming the local manifestations of this terrible disease.

The length of time necessary for dispersing tumours varies according to the nature of each individual case. Pediculated tumours, even if of considerable size, may generally be destroyed by a single application, as by electrolysis the connexion which exists between the tumour and the body is easily severed. Where tumours sit up with a broad base the duration of the treatment is generally much longer, and depends partly upon the size of the tumour itself, and partly upon the nature of its connexion with the body. Where it is intimately connected with important organs, such, for instance, as the throat and windpipe, it will always be found safer to proceed slowly, to destroy gradually; while in tumours which are seated about the limbs, a more rapid action is allowable. The length of each application varies from a few minutes to half an hour or even an hour.

The safety of the treatment, which is its chief characteristic feature, seems to me in a great measure due to the fact of its belonging to the domain of subcutaneous Surgery; for, although there is always a certain amount of action on the skin, yet by far the greatest effect is produced in the interior of the tumour, owing to the superior electric conductivity of the soft and warm internal structures, and also owing to the fact that the electrolytic effect is, under any circumstances, greatest on the points of the needles. Moreover, the eschars produced by prolonged applications are generally perfectly dry, and the skin below them is quickly regenerated, unless this should be prevented by complications, such as external injury.

In closing these remarks, I beg to express the hope that I have made out a case for the electrolytic treatment of tumours. If you consider the painless nature of the proceeding, the absence of shock and of bleeding, the fact that the patient may, during the whole progress of the treatment, be up and follow his usual avocation, and last, not least, the safety of the process, I hope it will be acknowledged that the method recommended by me bids fair to effect a substantial improvement in Surgical therapeutics.

University of St. Andrew's.—Mr. George Clerk Cheape, of Strathtyrum, has presented to the University of St. Andrews the sum of £1000 for the purpose of founding two bursaries.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

TWO CASES OF VARICOSE VEINS: ONE OF THE VEINS OF THE FOREARM; ONE OF THE SUPERFICIAL PUDIC VEINS.

(Under the care of Mr. PARTRIDGE.)

Varicose veins are one of the greatest of the petty ills to which flesh is heir, for though but seldom causing death or even threatening life, they worry and torment the unfortunate sufferer in a wonderful degree. In some instances varicose veins create little inconvenience; but in many others they cause much discomfort by pain, fulness, and weakness of the part affected, which become aggravated by exercise and the erect posture. The veins most generally varicose are those of the lower limbs, particularly the "vena saphena interna," the spermatic veins, and those in close relation with the rectum, which latter, in a varicose state, are known as hæmorrhoids. These are common enough, but a varicose state of the veins of the upper extremity is very seldom seen, and these can be always traced to some mechanical obstruction to the return of the blood, and often to some injury received by the veins themselves. The following are two cases which have been treated by a modification of Mr. Henry Lee's plan. They are remarkable in consequence of the varicosed vessels being in such unusual situations.

Charles W., aged 25, single, a footman, was admitted into the Albert Ward on November 13, 1867, with varicose veins of the right forearm. He states that about three years since he was struck by a cricket-ball, just above the right wrist, on the inner side of his arm, and severely bruised. A year afterwards, while carrying a tray, he strained his right arm. From this time the veins on the inner side of the arm from the wrist to the elbow began to enlarge and become tortuous. Mr. Brown, of Ascot, operated twice, and with good results for a time, but the swelling returned, and he suffered much pain.

He is a healthy-looking man, with large varicose veins reach- from the elbow on the ulnar side of the forearm down to the wrist, and affecting the little and ring fingers. The veins feel much thickened with fibrous deposits around them. Those above the elbow seem quite in a natural state, and there are no other enlarged veins anywhere about the body or limbs. No tumour or pressure in the axilla apparently, and the heart and lungs are perfectly healthy.

November 19.—Finger strapped carefully, and the arm bandaged from fingers to elbow.

December 11.—Two needles were placed under the veins, and the twisted suture applied, one needle being situated about four inches above the wrist on the ulnar side, and the second about two inches higher.

12th.—Slept but little last night, and complains of very great pain in the arm.

The patient seemed to suffer a good deal until December 18. Coagulum seems to have become pretty firm between the needles.

27th.—Needles removed; firm coagulum.

January 1.—Two more needles were put in, one just below the elbow, and one just above the wrist.

2nd.—Again complains of very acute pain.

10th.—The needle removed from wrist; the coagulum seems to be tolerably firm.

17th.—Second needle removed.

22nd.—Again two needles were placed under the veins in the middle of the forearm, and, as before, caused great pain afterwards. But by the 31st coagula had formed, and seemed firm all around. The veins seemed entirely occluded.

February 11.—Needles removed.

21st.—Discharged apparently quite cured.

Case 2.—Thomas Robert T., aged 27, a blacksmith, and unmarried, was admitted into the Victoria Ward December 14, 1867, with a varicose condition of the superficial pudic veins. He states that for the last two years he has noticed cord-like swellings running in different directions over the pubes, and that they give him much pain at times, while constantly he feels much weight and fulness in that region. The patient is a fine powerful young man, seemingly quite healthy, and has numerous varicose veins about the size of a goose-quill, meandering in various directions over the pubes. He has a slight varicocele on the left; but this gives him no trouble. There are no enlarged veins elsewhere.

December 18.—Two needles with the twisted suture applied—one on each side of the pubes.

21st.—No pain; coagulum beginning to get firm.

January 11.—Needles removed, and the wound dressed with simple cerate. The veins seem quite firm and hard, and entirely obliterated.

18th.—Wounds nearly healed.

24th.—Discharged cured.

With regard to these cases, it may be noticed that the condition of veins in both seems to be due to injury. In the first case, there is a history of a direct blow upon the veins; in the latter the veins appeared to have been subject to continual pressure from the hoofs of horses while the man was shoeing them, and to continual concussions as the man drove home the nails.

GUY'S HOSPITAL.

PISTOL-SHOT WOUND OF THORAX—BULLET ENTERING NEAR ENSIFORM CARTILAGE, PASSING ROUND THORACIC PARIETES, AND LODGING NEAR SPINAL COLUMN—RECOVERY.

(Under the care of Mr. POLAND.)

This case has some resemblance to that of the Duke of Edinburgh. In the Duke's case, however, the course of the bullet was the reverse; it entered near the spine and lodged near the nipple.

H. L. D., aged 6, a healthy lad, was playing with an elder brother on February 17, 1868, when the latter accidentally discharged one barrel of a small American six-chambered revolver, which he had thought was unloaded. At the time of the accident, however, the pistol was loaded with a conical bullet, weighing about half a drachm; the barrel was directed horizontally, though obliquely, to the anterior surface of the injured boy's body, and to this circumstance, which prevented the bullet from striking him point-blank, was probably due the fact of the patient's escape from serious injury. The muzzle of the revolver was distant between three and four inches from the boy's skin at the moment of discharge. Within an hour of the accident he was brought to the Hospital.

On admission, a small aperture was found in the boy's waistcoat and trousers near the median line in front, which, when the lad was undressed, was found to correspond to a small superficial circular wound, one-third of an inch in diameter, situate in the epigastric region, an inch to the left of the median line, and some two inches below the apex of the ensiform cartilage. It was over the sheath of the left rectus abdominis muscle, and fully three-quarters of an inch from the cartilages of the left lower ribs. There was no hæmorrhage from this wound, nor was there any marked collapse or sign of pulmonary or gastric lesion. The House-Surgeon (Mr. Henry Morris), upon making a careful examination, detected a small hard substance about half an inch to the left of the spinous process of the eleventh dorsal vertebra. Chloroform being then administered, and an incision made over this spot, the bullet was found lodged quite superficially to the muscles—in fact, just beneath the skin. It was discovered lying horizontally, with its apex towards the spine. No line of discoloration existed in the skin, nor was there other positive evidence, such as tenderness upon pressure, to indicate the track probably pursued by the bullet beneath the integument. Just to one side of its apex the bullet was a little flattened and brightened, as might arise from its impinging obliquely upon a hard substance, such as bone or costal cartilage. The posterior incision was closed by one suture and strapping; the anterior wound was dressed with wet lint.

Progress of Case.—No symptoms of thoracic disturbance, cardiac or pulmonary, at any time arose, nor did any intestinal or peritoneal complication ensue. No bruising of the skin over the track of the bullet was ever visible, but a little tenderness upon pressure there was experienced about two or three days after his admission. On February 20 the wound of entrance was covered at its centre by a small coagulum of nearly black blood that was being loosened by commencing suppuration of the surface on which it lay. The zone of skin around the wound was slightly inflamed, reddened, and immediately beyond this again was a circle of yellow discoloration half an inch wide, which gradually faded off into the surround-

ing healthy skin. All tenderness had disappeared from over the subcutaneous channel pursued by the bullet. The suture was removed from the posterior wound, which was beginning to suppurate, and water dressings were applied. No symptoms of constitutional disturbance ever appeared, and the patient left the Hospital on March 7. Since then the wounds have healed, and the boy when last seen was in excellent health.

GUNSHOT WOUND OF PALM OF HAND—RECOVERY.

(Under the care of Mr. POLAND.)

H. D., aged 30, a plasterer, was shooting on December 23, 1867, and had loaded his gun with No. 6 shot (an ordinary charge of which consists of about eighty shot) rammed down tightly with paper, when he thought he heard some of the shot loose in the barrel. Placing then the palm of his left hand over the muzzle, he inadvertently, in inverting the gun, pulled upon the trigger with his right hand. The gun was discharged, and the whole charge of shot traversed his left palm. He suffered no pain for a short time, and was enabled to run to the nearest public-house. In the course of an hour or so he was brought to the Hospital.

On admission there was a circular wound, about as large as a shilling, at the centre of the left palm, the edges of which wound were inverted. Exactly opposite this, on the dorsal surface of the hand, was a second larger star-shaped wound, of the diameter of a five-shilling piece, the edges of which were irregular and jagged. No shot were left in the hand. The shafts of the metacarpal bones of the middle and ring fingers were shattered, and several of the fragments were movable in the wound, but could not be removed on account of their being still firmly adherent to the surrounding soft tissues. The motions of the thumb and index and little fingers were scarcely at all impaired; the two central fingers, however, were almost motionless. Pain was severe, and the man felt very faint. The left forearm, fingers, and thumb were fixed to a splint, which was interrupted under the palm, so as to admit of the wound being dressed without removal or re-adjustment of the splint; and the whole limb was then considerably raised, to prevent hæmorrhage.

Progress of Case.—A little bleeding occurred during the first night, none subsequently. The wound remained more or less painful for a fortnight, during which time opium was administered. On January 11, three small pieces of bone came away in the poultices; but, with these exceptions, none was removed. He left Guy's on January 29, 1868, but afterwards attended frequently at the Hospital.

April 28.—Cicatrisation was nearly complete on both surfaces of the hand. Some portions of bone, whitened, but still firmly attached, yet remained exposed.

COMPOUND COMMINUTED FRACTURE OF LEFT FEMUR PRODUCED BY DISCHARGE OF PISTOL—AMPUTATION—RECOVERY.

(Under the care of Mr. POLAND.)

G. C., aged 29, a bricklayer, was admitted into Guy's Hospital on January 16, 1867, having about an hour previously received a gunshot wound of the left thigh. At the time of the accident he was sitting in the tap-room of a public-house, with a horse-pistol loaded with shot in the left breast-pocket of his great-coat, pointing muzzle downwards. Another man, in attempting to push past him, accidentally fired off the pistol, and the whole charge of shot entered the outer side of the left thigh, which was so close to the pistol that the shot had not scattered, but passed out on the opposite side of the limb.

On admission, the patient was considerably collapsed, and partly unconscious from alcohol. The wound of entrance was circular, of the size of a shilling, situated about six inches above the knee-joint on the outer aspect of the left thigh; thence the track of the charge had passed downwards and inwards to the popliteal space, comminuting the femur in its course, but escaping altogether the large vessels, for the anterior and posterior tibial arteries could be felt pulsating at the ankle. The wound of exit was irregular, about as large again as the entrance wound, and clinging to it were many of the shot of the charge. In consequence of the man's semi-intoxicated condition, operative measures were deferred until the morrow.

On January 17, Mr. Poland amputated the limb at the middle of the thigh; and the patient subsequently made a rapid recovery. He was discharged well on March 1, 1867. The limb is in the Museum of the College of Surgeons.

For the first two reports we are indebted to the account drawn up by Mr. Eugene Hart, for the last to Mr. W. H. Nichols, both gentlemen Mr. Poland's ward clerks.

THE LONDON HOSPITAL.

SHORT NOTES OF VARIOUS CASES.

(Under the care of Mr. HUTCHINSON.)

1. *Trephining of the Skull.*

In the children's ward there are at present two cases in which the skull has been trephined on account of compound depressed fracture. In each the fracture was of the punctured kind, and was caused by the fall of a heavy earthenware utensil. In one the operation was done a month ago, and in the second only a few days. Both patients are doing perfectly well. Mr. Hutchinson explained in each that his reason for operating was to prevent the ill results of inflammation about the depressed and detached fragments of bone. In neither case were there any cerebral symptoms. He stated that his experience had been strongly in favour of interference.

2. *Large Node of the Femur simulating Cancer.*

In the Hebrew Ward there is an interesting example of periostitis of the lower end of the femur, which might easily be mistaken for cancer. Already it is much reduced in size under iodide of potassium treatment, and the diagnosis is made certain. In the first instance, when there was great swelling, it was very difficult to form a positive opinion, and the difficulty was not diminished by the fact that there is a gummous tumour in the vastus muscle in addition to the periosteal enlargement. The history of syphilis is obscure, and prior to the man's admission an attempt had been made to puncture the swelling, but only blood was obtained.

3. *Fracture of Humerus by Muscular Force.*

In "Gloucester" Ward there is a man of about 30, who broke his left humerus whilst tossing a ball for a child. He felt the bone snap whilst throwing the ball, and he is quite certain that he did not strike the arm against anything. There is considerable thickening about the seat of fracture, and as the man had for some time before suffered from pain in the part, it is feared that the bone was previously diseased. The fracture is in the lower third. Iodide of potassium has been prescribed.

4. *Transverse Fractures of the Patella.*

There are at present, or were a few days ago, no fewer than seven examples of transverse fracture of the patella in Mr. Hutchinson's wards. Nearly all of them had the history of fracture by muscular violence only. In all the fragments have been kept in close apposition without the use of hooks, and without elevation of the limb.

5. *Molluscum Fibrosum.*

In "Sophia" Ward there is an excellent example of the rare condition known as molluscum simplex or fibrosum. The patient, a young woman, is covered all over with tumours of various sizes, from a small pea to an orange. Many of them are pediculated. One on her right leg has given her so much inconvenience that she wishes to have it removed.

THE MOTHER AT HOME *v.* PUBLIC NURSERIES.—While commending the good intentions of the promoters of infant day nurseries, it cannot but be regretted that the efforts of those benevolent persons are not more wisely directed. Similar undertakings have failed over and over again, and they will continue to fail, because—apart from the question of management—the idea, however well meant, has arisen out of a wrong state of things, and is based upon an erroneous principle. The "infant day nursery," in fact, is a clumsy attempt to supply the place of the mother; and as those mothers who, from a short-sighted and mistaken policy, leave their families in order to earn a few daily pence, violate one of Nature's laws, the result must be disastrous to the infant population. It is true that the children who are sent to the "day nursery" may escape some of the dangers which threaten to overtake them if left at home while the mother is out at work; but nothing can compensate for the absence of the wife and mother from her home, notwithstanding what political economists may have to say upon the subject.—*The Queen Newspaper.* [Quære: Is it better for a mother to go out to work, or to stay at home to starve?]

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Medical Times and Gazette.

SATURDAY, MAY 2, 1868.

ON THE PASSAGE OF BLOOD-CORPUSCLES THROUGH THE WALLS OF THE VESSELS.

In our last number we drew the attention of our readers to the interesting observations of Cohnheim upon the passage of the blood-corpuscles through the walls of the small veins and capillaries, and to the explanation offered by Dr. Bastian of the mode in which this takes place. We now propose to consider more in detail certain points in connexion with these important experiments.

Before proceeding to discuss this subject, however, we desire to point out that a claim of priority in these investigations really belongs to our distinguished countryman, Dr. Augustus Waller, who, as early as the year 1846, observed the same facts, and drew almost exactly the same conclusions therefrom, as Dr. Cohnheim has recently done. Dr. Waller published in the twenty-ninth volume of the *Philosophical Magazine* (1846) an account of several observations he had been making upon the tongue of the frog, and amongst other facts he records having watched the escape of both the red and the white corpuscles from the capillaries under very much the same circumstances as those which have been recently employed.

Thus, he states (pp. 285, 286), "Recent observations have enabled me to decide the much-agitated question as to the formation of pus, and its origin from the extravasation of the colourless or spherical corpuscles from the capillaries."

He then proceeds to detail the results of two experiments, in one of which he observed the white corpuscles escaping from the vessels in the mesentery of a toad, whilst the only traces of their points of exit "were curved indentations in the vessel of the same size as the corpuscles, and a solution in the continuity of the parietes of the vessel at these points." In the second experiment the tongue of a frog was employed, and in this case both the red and white corpuscles—the latter, however, in by far the greatest number—escaped through the walls of the capillaries, whilst "no appearance of rupture could be seen in any of the vessels. The corpuscles were generally distant about 0·03 mm. from their parietes. After the experiment had lasted about two hours, thousands of these corpuscles were seen scattered over the membrane, with scarcely any blood-discs. The process by which they passed out of the vessel could be best observed in a capillary containing stationary blood-particles. Generally at a slight distance from it some extravasated corpuscles could be detected, and at the nearest opposite point of the tube a small concave depression was presented. Frequently near this depression numerous corpuscles were collected within the tube, as if about to follow the rest, which had escaped. These were frequently agitated by a movement of oscillation, which showed that there was no open point in the tube. In other spots some of these corpuscles were seen protruding half out of the vessel. Whenever the current reoccurred in a vessel presenting these appearances, the depression and unevenness quickly disappeared, and no trace of the corpuscular extravasation could be seen, except the presence of the corpuscles themselves. I consider therefore as established—1st, the passage of these corpuscles *de toute pièce* through the capillaries; 2ndly, the restorative power in the blood, which immediately closed the aperture thus formed."

In a second communication, (p. 397), entitled "Microscopic Observations on the Perforation of the Capillaries by the Corpuscles of the Blood, and on the Origin of Mucus and Pus-globules," Dr. Waller shows most conclusively the identity of the white corpuscles of the blood with those of mucus and pus, and gives an account of several experiments which he had made to confirm his original observations. With regard to the mode in which corpuscles escaped from the vessels, Dr. Waller had evidently come to no satisfactory conclusions. He points out that it is not essentially connected with the life of the animal, as it is observed to take place after death, and he suggests that it may be due to a solvent action of the corpuscle upon the structures composing the wall of the vessel. The essay is illustrated with plates, which clearly show that Dr. Waller had observed all the phenomena which have been recently brought so prominently before the public.

In referring so fully as we have done to this subject, we would disclaim any desire on our part to depreciate the value of Dr. Cohnheim's re-discovery of a lost fact, which appears likely to have most important bearings upon the progress of pathology; but we think it due to our distinguished fellow-countryman to establish his claim to the honour of the original discovery. The questions which Dr. Cohnheim has attempted to solve are, in the first place, the formation of pus from the white blood-corpuscles, and, in the second, the mode in which the red corpuscles escape without any apparent lesion of the capillary system. The method of experimentation is exceedingly ingenious; and as the details are likely to prove of interest to those of our readers who have not yet had an opportunity of examining the subject themselves, we have explained them at length on another page.

To obtain the first result, the mesentery of a frog paralysed with woorara is exposed for some hours, the surface being occasionally moistened by an artificial serum; the various phenomena of inflammation may be observed to take place, and on the occurrence of stasis, or rather during the preceding oscillating stage, the white blood-corpuscles, which have become apparently attached to the walls either singly or in groups, gradually give rise to a bulging of the vessels, the corpuscles thus lying in pouch-like cavities projecting from the tube. Presently the corpuscles cease to be seen within the capillaries, and may be seen lying free in the tissue around it; sometimes they may be caught in the act of escaping, but it is extremely difficult to determine the exact course which they follow through the wall of the vessel. After their escape no difference can be observed between them and the others which remain within the vessels. Our leading histologists have long been agreed that pus-corpuscles are related to the white blood-corpuscles both in structure and in origin. Virchow traces the formation of pus from the nuclei of connective tissue, and on free mucous surfaces from the epithelial cells; he fully recognises, however, the connexion between the pus and blood corpuscles, and makes use of the following remarkable expression:—"Both have a like type of formation. It may therefore be said that pus has a *hæmatoid* form: nay, the old doctrine may be revived afresh—namely, that pus is the blood of pathology." ("Cellular Pathology," p. 482.)

This new view, then, of the development of pus presents no feature at variance with received doctrines, and the great

question yet to be determined is whether this is the only or even the most common mode in which the process takes place, and for the answer to this we must look to the future.

The second experiment consists in producing congestion of the capillary system in the web of a frog's foot by the application of a ligature to the femoral vein. The resulting phenomena are :—1st, retardation of the stream; 2nd, the occurrence of oscillation ; 3rd, stasis ; this is followed by massing together of the corpuscles and the adhesion of a few red corpuscles to the walls of the vessels, which usually become pouched at these points. On relieving the congestion by removing the ligature, the conglomerates of corpuscles break down, and the stream speedily recommences. The corpuscles, however, which had become adherent to the walls are now seen to pass through them, and to appear in the surrounding tissues. They are followed by others, and soon the spaces between the capillary network will become loaded with blood-globules. They may be watched in every stage of their transit. In attempting to determine how this process takes place, we have to consider, first, whether there are really apertures in the vascular parietes ; and, second, whether the result is due to any peculiar properties of the blood-corpuscles themselves. Dr. Cohnheim inclines to the belief that interspaces exist between the cells of the lining membrane of the smallest vessels, and in this view he is supported by the fact that openings have been proved to exist in the smaller branches of the lymphatic system, apparently in connexion with the stomata-like orifices in the epithelium of the serous membranes, through which branches of considerable size may be injected. The existence of such orifices is, however, still a matter of dispute ; and whether this be so or no, it is most probable that the blood-corpuscles themselves take an active part in the process. The amœba-like movements of the white blood-corpuscles have recently attracted the attention of several able observers. Professor Max Schultze states that he has even seen them protrude arm-like processes, and embrace minute granules of organic matter, such as abound in the molecular base of chyle or milk. Endeavours have been made by more than one observer to determine whether these movements are influenced in any way by disease, but, up to the present time, with indifferent success. More recently attention has been directed to similar movements on the part of the red corpuscles under certain conditions, especially that of exposure to a moderate heat. Some have viewed these latter movements as purely physical phenomena, and in no way connected with the individual life of the corpuscle ; but analogy would induce us to consider this view as incorrect. The theory of the individuality of cell-life has, moreover, been steadily gaining ground of late years, and the whole tendency of modern physiological and pathological teaching has been in this direction. After a careful examination of such specimens as those exhibited by Dr. Bastian at the last meeting of the Pathological Society, few can fail to be convinced that the corpuscles themselves are really active agents in their migration through the vascular walls ; and when this fact is fully recognised much light may be thrown upon hitherto obscure blood diseases. We look forward with great interest to the results of the investigations which are now being prosecuted in this direction by many able observers, and when we consider how different is the mode in which this same subject is received now from that which was the case twenty years ago, we have reason to congratulate the Profession upon the increased zeal for true scientific investigation which is everywhere apparent.

PRISONERS OF WAR.

Without doubt the American Civil War was the greatest tragedy of modern times, and the most sickening passage of it is that which relates to the treatment of their prisoners of war by the Confederates. The history of this lamentable business is given at full length in the lately issued "Memoirs of the War of the Rebellion, collected and published by the United States Sanitary Commission,"(a) and is, moreover, given by a Medical officer of the Confederate army, Joseph Jones, M.D., formerly Professor of Physiology at Nashville.

Professor Jones, who is evidently well qualified for investigations demanding a knowledge of physical and natural science, heard, in August, 1864, of the great mortality amongst the Federal prisoners of war confined in the military prison at Andersonville, Georgia, and, from pure motives of philanthropy, obtained permission from Surgeon-General Moore to investigate the causes thereof. This he did, and drew up a report for the information of the Confederate Government. But the Confederates were already on their last legs, and before Professor Jones's papers could be presented, he was forced to give them up to the victorious Federal authorities, by whom they were used—unfairly and partially, as Professor Jones states—in the prosecution of Captain Wirtz, who was convicted and hanged for his alleged wilful cruelty to the prisoners.

Andersonville, Georgia, appears to have been a well-chosen spot for a military prison, being high, dry, well-watered, and as salubrious as any place under the same parallel, about 32° N. Seventeen acres at first, afterwards twenty-seven, were enclosed by a strong stockade twenty feet high, surrounded by two other stockades for purposes of military safety, and commanded by batteries at each corner. The enclosed ground was in the form of a parallelogram, including the opposite slopes of two hills north and south, whilst a stream of water ran through the middle valley from west to east. The mean number of prisoners in this enclosure was raised from 7500 in March to 32,899 in August, at which time the average superficial space of ground to each prisoner was 35·7 square feet, but in June, before the additional ten acres were enclosed, the space was only 33·2 feet ; so that in an average space of about 7 feet by 5, or 8 feet by 4—the size of an ordinary dining-table—each prisoner was compelled to perform all the offices of life—cooking, washing, urinating, defecation, exercise, and sleeping. And even from this space must be deducted the breadth of land occupied by the stream and its borders, which were so defiled as to be impossible for habitation. As for shelter, there were a few old and rotten tents, besides small huts and caves constructed by the prisoners for themselves. The police and discipline within the stockade, if such they could be called, were left to the prisoners. As might be expected, the darkest crimes were perpetrated. The stronger, says Professor Jones, preyed on the weaker ; the sick were robbed of their scanty food and clothing ; men were robbed and strangled in the dark. One prisoner deliberately accused his nurse, a fellow-prisoner, of the United States army, of having inoculated his arm with gangrene, that he might inherit his clothes. Six men, convicted of robbery and murder, were hanged by their fellow-prisoners, after a formal trial, with the consent of the whole body. Of proper arrangements for cleanliness there were none. The lower ground near the stream was one mass of putrefying excrements, and fragments of bread, meat, and bones, emitted a horrible stench. No rain sufficed to wash away the accumulations. The huts, caves, ragged tents, and blankets stretched on sticks, which served for shelter, were scattered over the ground with no attempt at arrangement. Even at their tent doors the men disordered by scurvy and diarrhœa attended to the calls of nature ; whilst small pits not more than a foot or two deep, and filled with fæces, and masses of corn bread, old rags, bones, and filth, abounded everywhere. The dead of the previous night lay in the narrow streets with-

(a) "Contributions relating to the Causation and Prevention of Disease, and to Camp Diseases, etc." Edited by Austin Flint, M.D. New York. Published for the United States Sanitary Commission by Hurd and Houghton, 459, Broome street. 1867. Pp. 668

out covering, with open glazed eyeballs, open mouth, and contorted limbs, for no comrade's hands performed the last offices to the dead. The bodies were buried carefully, but within a quarter of a mile from the prison; large green flies issued in swarms from the cracks in the ground. The sick were at first treated within the stockade, where they were exposed to forays from their brother prisoners, who stole their food and clothing; afterwards a Hospital was organised on five acres of land outside. At the time of Professor Jones's visit there were 5000 sick, the deaths were 100 a day, and the total deaths were 10,000, or one-fourth of the whole number of prisoners.

Scurvy, diarrhœa, dysentery, and gangrene were the prevailing diseases; malarial fevers, typhus, and typhoid were almost unknown. It is supposed that the malarial poison was itself destroyed by the more poisonous artificial state of the earth (as in the Ghetto at Rome), and typhus and typhoid were neither introduced nor generated, even under circumstances so favourable. This is used as an argument against spontaneous generation of typhus and typhoid. The prisoners, and especially the sick, were, of course, dirty, haggard, and verminous in the extreme. Even the Hospital suffered as much as the stockade from want of police, and the accumulation of filth in the stream which ran through the grounds. Bedding, medicines, Surgeons, and cookery were wanting. Grotesque as it may seem, the only creatures in the Hospital that did their duty well were the maggots! Professor Jones, after describing the swarms of flies which propagated hospital gangrene and filled the wounds with maggots, says:—"So far as my experience extends, these worms destroy only the dead tissues, and do not injure specially the well parts. I have even heard Surgeons affirm that a gangrenous wound which has been thoroughly cleansed by maggots heals more rapidly than if it had been left to itself." The master disease was scurvy, which was present in every variety, and was the main source of the gangrene and fatal diarrhœa, besides being itself a cause of death, sudden or slow.

It is clear, from Professor Jones's statement, that neither the filth nor the crowding, nor the stench, exposure, neglect, and horrible despondency under which these prisoners laboured were so fatal as the food, which consisted of a daily ration of one-third pound pork and one and a quarter of corn meal, with an occasional issue of beans, rice, and molasses. The irritation caused by the corn meal—unbolted, and with the husk in it—was most injurious.

The excuse for these horrors was, that the state of the prisoners was but an intensified type of the condition to which the whole Confederacy had been reduced by war. The stockade was guarded by troops composed of a few old men and boys unfit for other service, for the country was drained of men. Hence the disorder and want of discipline. If the prisons were too small, it was because the Confederates had neither tools, machinery, nor labour for cutting timber. The ration, bad as it was, was that supplied to the Confederate army in the field, who were no strangers to fever, scurvy, and gangrene; and as to surplus food and comforts, at this very time, Sherman had laid waste utterly, and destroyed or carried off, all the corn, vegetables, cattle, pigs, poultry, horses, and mules from the interior of Georgia—"a hard species of warfare," as he justly called it. All this time, too, the United States Government—spite of the groans of its own imprisoned soldiers—obstinately resisted all exchange of prisoners.

The one reflection that rises to the surface is, that, spite of international conventions for humanising the treatment of the wounded and prisoners, war is a terrible game, to be carried on only by staking life against life. The unhappy peculiarity of this American rebellion was the remorselessness with which the non-combatant and helpless, the women and children and prisoners, were made to suffer by the devastating raids of the Federal army, unequalled since the times of Louis XIV., and by their ruthless policy of allowing forty thousand of their bravest soldiers to lie rotting in the Andersonville stockade rather than consent to exchange them. The Confederates should rather have released their prisoners on parole than have allowed this blot upon the history of their heroic struggle; or, rather, let us say that the rapid exchange of prisoners ought to be considered a piece of international morality, as one of those mutual courtesies which soften the horrid realities of war.

"WHY SHOULDEST THOU DESTROY THYSELF?" A HINT TO MEDICAL OFFICIALS.

The maxim—"Be not over-righteous; why shouldest thou destroy thyself?"—holds good now as it did in the time of the author of Ecclesiastes. Talleyrand's well-known maxim, "*Point de zèle*," means the same. One of the best of the many *mots* and anecdotes which enforce it is told of the well-known Mr. Coutts, the banker. A young lady who met this venerable millionnaire in society ventured to say to him—"People say, Mr. Coutts, that you are dreadfully rich; will you tell me how you made all your money?" "I'll tell you how I made half of it," replied he, "and that was by minding my own business." "But," continued the unabashed interrogator, "how did you make the other half?" "By leaving other people's business alone." There is a good deal in this, which is worth considering by such members of the Medical Profession as hold public appointments.

For instance, a man offers himself as a candidate for a vacant Poor-law Surgeoncy, and gets it. He has the full opportunity of making himself acquainted with the duties, emoluments, pleasures, and penalties of the appointment. He has also the opportunity of making known to the guardians, if he choose, the views he entertains and the conditions under which he can accept and hold the office with advantage and credit. He must be aware also that the guardians, like other men, are fully entitled to have a will of their own, to entertain their likes and dislikes, and to act upon them. Very well. He takes the office, and, if he be a conscientious man, will mind his own business, and will do his duties carefully and punctually, and in so doing will probably find a vent for a great deal of his unexpended energy. But he may wish to do more. He may find that his own performance of his duties is hindered by the inadequate nature of the infirmary, or other institution, establishment, or machinery with which he has to work. He may feel indignation at guardians or committeemen who do not mind what he thinks *their* business. His feelings may be shocked at what he conceives to be acts of inhumanity or neglect of the sick poor, and he may feel it difficult to stick to the rule of "letting other people's business alone." Well, it is quite conceivable that abuses may reach a point at which a conscientious officer may feel himself an accomplice if he do not denounce abuses or cruelties which he believes he witnesses.

But we can imagine nothing that requires greater discretion, coolness, and tact than for a man to denounce abuses which are alleged to be perpetrated by his own employers, at whose pleasure, to some extent at least, he holds his appointment. Guardians may be viewed, on the one hand, as flinty-hearted grinders of the poor, or, on the other, as trustees of the public money, of which they are bound to be careful. Anyhow, they administer a system which is absolutely impossible to be so administered as not to lay them open to blame on one side or the other. If they are careful or parsimonious, it must happen that some deserving poor may get very hardly treated; and if they are careless or liberal, it is equally certain that they will demoralise those who receive, whilst they rob those who pay, the rates.

It by no means follows, therefore, that a stingy expenditure of poor's rates is bad public policy, or that guardians who have to administer the law may not be quite as conscientious in their own eyes in resisting the demands of a Medical officer

as he is in making them. Anyhow, every man of the world knows that the very way to perpetuate abuses is to wound the pride of the administrators, so as to make all reform humiliating to them; and common sense shows that if an officer cannot persuade his employers by mild means to introduce the reforms he wishes, and if he appear as complainant against them, holding them up to contempt and ridicule, he must not be surprised if they get rid of him if they can.

It is the peculiarity of the English Poor-law administration that a central Board exists, which controls to some extent the guardians, and protects the Medical officer. The duties of the Poor-law Inspectors are difficult and delicate, but, on the whole, are performed to the advantage of the sick poor and of the Medical officers; and it must be considered a misfortune, at least, for a Medical officer to offend each of these antagonistic authorities.

If he do, he must not, as a man of the world, be surprised if he be *dropped* by both.

So that any Medical officer who, besides minding his own business, wants to make the guardians mind theirs and the Poor-law Board theirs, should well count the cost, and must of course be prepared to lose office and salary in the scrimmage. He engages in a fair fight, where the weaker must go to the wall.

But let us suppose such a man as Dr. Rogers, who has lately lost his office in the Strand Union for the alleged offences of antagonism and discourtesy to his board. Here is a man, keenly alive to his duties, unable to bear anything that looks like neglect or cruelty, conceiving it his duty to do good by speaking out unflinchingly—no diplomatist, no courtier, no Mr. By-ends, but a single-minded, generous enthusiast, with no thought of his own safety, the sort of man whom discreeter personages employ to fire the train, to bell the cat, or get the chestnuts out of the fire. Of course, whilst men are men, most boards will be glad to get rid of a functionary so troublesome, but it would be an inexcusable act on the part of his Professional brethren if they did not praise the man whilst they lament the incautiousness which laid him open to attack.

We are glad to note that at the meeting of the Metropolitan Poor-law Medical Officers' Association, which took place on Wednesday evening, there was a unanimous and warm expression of sympathy with Dr. Rogers in the treatment which he has received both from the Strand Board of Guardians and from the Poor-law Board. As no longer a Poor-law Medical Officer, Dr. Rogers resigned the Presidentship of the Association, but he was immediately elected an honorary member, and was ultimately reinstated in the President's chair amidst general acclamation. In fact, he received a regular ovation. We are very glad of this. We respect honesty and courage where we find it, even if it be not always mixed with a right proportion of the instinct of self-preservation. One of the most unselfish apostles of Workhouse Medical Reform was allowed to fall a martyr to the cause, with faint help from the Workhouse Infirmary Association, to which he had a right to look for it, and we rejoice that his Professional colleagues have rallied round him in his reverse.

THE WEEK.

TOPICS OF THE DAY.

The despatch received at the Admiralty on Saturday last from Commodore Lambert gives a sufficiently precise account of the wound inflicted on the Duke of Edinburgh to enable our readers to estimate both the narrowness of the escape and the serious character of the injury received, from which, however, we rejoice to see that, by virtue of youth, good previous health, and good treatment, His Royal Highness, if not recovered, is rapidly recovering. The ball, it is said, entered the back, half an inch from the spine, struck the ninth rib, followed round the course of the rib, and lodged five inches from the umbilicus and four inches and a quarter beneath the right nipple, having traversed a distance of twelve inches and a quarter. It does not appear on which side of the spine the ball entered; but it is clear that, had it not been deflected by the rib, the injury must almost certainly have proved mortal. As it is, a long wound of that kind is liable to be followed by protracted suppuration, even if there be no chance of necrosis of the rib. We are therefore glad that His Royal Highness's Medical advisers have determined that he should recruit his health by a return to England. The wound was received on March 12; the ball was extracted on the 14th by Mr. Watson and Dr. Young, of H.M.S. *Challenger* and *Galatea;* and the last telegram from Lord Belmore, dated Sydney, March 31, states that the Prince was then progressing favourably. Reuter's telegram, dated April 1, states that he had recovered from his wound, and that he would start for England on April 4. We can only hope that, considering the important services which officers of the Naval Medical service have thus rendered to the Royal Family, that service will obtain more consideration from those in power than it has hitherto received. Although the position of Naval Medical Officers has been greatly improved of late years, the department has still causes for grave complaint. We trust, therefore, that Royal gratitude will not stop with a recognition of the services rendered by the Prince's immediate attendants, but will in addition take a shape which shall diffuse a feeling of confidence and satisfaction amongst a most meritorious class of public servants, and make the Medical department of the Royal Navy once more popular.

We are glad to find that, in consequence of attention having been called by this journal to the manifest injustice of the Bill before Parliament for regulating Medical practice in the colonies, strenuous and successful efforts have been made by the Medical Council and the Medical corporations to obtain a modification of its provisions. The President and Registrar of the Medical Council, Dr. Burrows and Dr. Hawkins, have had an interview with the Duke of Buckingham at the Colonial Office. The Royal College of Surgeons of England, as we stated last week, has been, through the Secretary, Mr. Trimmer, in frequent communication with the same department, and on the day on which the Duke of Buckingham received the President of the General Medical Council he also received a deputation from the Parliamentary Committee of the British Medical Association on the same subject. The Bill has been essentially altered by the Colonial Minister since it passed through Committee in the Lords. The retrospective clause is entirely omitted, and the power of colonial legislatures is now restricted to enforcing registration in the colonies on those persons whose names being on the Imperial Register may engage in colonial practice. The principal clause of the Bill, as amended, runs thus:—

"Every colonial legislature shall have full power from time to time to make laws for the purpose of enforcing the registration within its jurisdiction of persons who have been registered under 'The Medical Act,' anything in the said Act to the contrary notwithstanding; provided, however, that any person who has been duly registered under 'The Medical Act' shall be entitled to be registered in any colony upon payment of the fees (if any) required for such registration, and upon proof, in such manner as the said colonial legislature shall direct, of his registration under the said Act."

We are not lawyers, but it seems to us that this, which is the only clause of importance in the Bill, precludes the registration in the colonies of any Practitioner whose name is not on the Imperial Register. It cannot be the intention of the Colonial Office to exclude from colonial registers persons who have obtained diplomas from the licensing bodies in England, and, intending to practise in the colonies, have neglected registration in Soho-square. Neither can it be the intention to exclude from colonial practice the graduates of colonial universities whose degrees do not entitle them to register in

England. We hope that the attention of the Government will be early called to the matter, as, if the clause stands in its present form, we do not see how the General Council can in justice refuse the registration of degrees granted in the colonies by bodies over whom, it must be remembered, the Council can exercise no power of supervision.

The paper on vaccinal syphilis by Mr. H. Lee, which he read at the Medical Society on Monday last, attracted a large audience. There were many speakers, and the debate was animated, but it seemed to us to reveal a general want of information as to the scientific facts in question, and more especially of recent occurrences on the Continent. More than one speaker quoted cases of mere eruption without primary sore, which appeared soon after vaccination, as proof of the inoculation of vaccino-syphilis. Several also insisted upon the innocuousness of vaccine lymph obtained from a syphilitic patient, if taken free from blood—a position which may be scientifically true, but which seems to us practically of very doubtful value. No one alluded to the series of cases brought last year before the French Academy of Medicine by M. Depaul, and much stress was laid on the experience of vaccinators in this country, who, because they have never seen the two diseases conveyed together, are inclined to doubt the possibility of such an accident. The moral of the French and Italian cases is no doubt this—that it behoves all vaccinators to examine carefully and inquire into the antecedents of subjects from whom they procure lymph. That this is done more constantly in England than abroad we believe to be one reason why we have hitherto escaped such epidemics of vaccino-syphilis as those of Rivalta and Morbihan.

Dr. Wilson Fox will deliver a lecture on the artificial production of tubercle in the lower animals at the Royal College of Physicians on Friday, May 15, at 5 o'clock.

The *Guardian* newspaper has been calling the attention of parents and tutors to the freethinking which prevails in the Parisian Medical Schools. Certainly the *morceaux* from certain pass theses which it quotes would be shocking enough if they were not ludicrous. One young gentleman is reported to have written that "all belief in a soul or a God is a manifestation of lunacy;" another, that "to talk of liberty of action is nonsense," that "man obeys the laws of his nature as a stone falls to the ground," etc. The *Guardian* warns people against allowing their sons to resort to Paris for the purpose of study; but we think better of our young countrymen than to believe they would allow themselves to be seduced from their belief by shallow stuff of this sort.

The Senatus Academicus of the University of Edinburgh have published a statement on the subject of the representation in Parliament of the four Scottish Universities, which will be allowed on all hands to be able and well reasoned. The proposal to give two members to these Universities, which is one of the provisions of the Scottish Reform Bill, has been met, it will be remembered, by a notice of amendment to limit the number for the four Universities to one. Assuming the principle of University representation to be freely admitted, the Senatus argue that "the number of members to be allotted to the Universities of a country may depend partly upon the amount of property possessed by them, but must be determined chiefly by a consideration of their educational influence on the community at large." That the possession of property does not confer the major claim to representation, is acknowledged by the fact that a member has been granted to the University of London, which cannot be said to possess any property at all. Compared with the old English Universities, the Scottish Universities are poor—Oxford, for instance, with its Colleges possessing an income of £500,000 a year, whilst the University of Edinburgh does not possess more than £19,000; but, say the Senatus, Oxford, with its enormous wealth, only yearly educates 1700 students, whilst Edinburgh, with its limited resources, educates between 1500 and 1600. Again, the size of the constituencies of the Scottish Universities, when compared with those of the English and Irish, seems to demand at least the small amount of representation which the Government propose to grant them. The members of the Universities of Edinburgh and St. Andrews are 5358, whilst the members of the University of Cambridge are 5354, and of Oxford 4190. Again, the members of the Universities of Glasgow and Aberdeen amount to 2720, whilst those of Trinity College, Dublin, amount to 1877. But Oxford, Cambridge, and Dublin each return two members to Parliament, whilst the Scottish Reform Bill only proposes to give Edinburgh and St. Andrews one between them, and the same to Glasgow and Aberdeen. The Senatus justly point to the influence which, by the attention they have devoted to the sciences, the Scottish Universities have had in advancing industrial progress and general material interests, not only in Scotland but in the North of England. They educate from three to four thousand students annually, and send between four and five hundred graduates into the professions of the United Kingdom. With such an experiment as that of household suffrage approaching to its *dénouement*, we should think that the moderate on both sides of the House of Commons would gladly seize every opportunity of giving as much weight in the State as possible to intellect and education.

The recent visit of a deputation from the Court of Examiners of the Apothecaries' Society to the Royal College of Surgeons, by invitation of the President of the College, for the purpose of witnessing the mode in which the examinations in anatomy and physiology are conducted, is, we presume, preliminary to the establishment of an understanding between the two boards of examiners, similar to that which exists between the College of Surgeons and the College of Physicians. It is undoubtedly an evil that students should be submitted to numerous examinations in exactly the same subjects by different examining boards. The College of Surgeons have recently introduced great improvements into their examinations. The examination in anatomy, conducted, as it is, with the dissected subject before the student, and by the help of an unrivalled series of anatomical preparations in spirit, we believe to be as perfect as it is possible to make it. We think that those examining bodies whose testimonials of proficiency in Medicine are accepted by the College of Surgeons may gracefully and beneficially reciprocate by declining to subject students who have passed the primary examination at the College of Surgeons to further anatomical test. The College of Physicians have accepted this proposal, and it is, we believe, probable that the Court of Examiners at the Hall will be prepared to make a similar concession.

At the time of our writing the case of Lyon *v.* Home is not concluded. As we predicted last week, the air of the Court of Chancery did not prove favourable to the exercise of Mr. Home's supernatural gifts, and, although invited to do so by Mr. James, Q.C., he declined to give any demonstration of them when in the witness-box. Mr. Gerald Massey (the author), Mr. S. C. Hall, F.S.A., Mrs. S. C. Hall, and Mrs. Nichols, the wife of Mr. John Gough Nichols, were amongst the witnesses called by the defendant. Mr. Home boasted that he had been the guest of the Emperor of Russia and of the Emperor of the French. The trial is unique, and will long be remembered as furnishing an example of the amount of credulity and superstition which may underlie the highest civilisation.

During the recent visit of the Prince of Wales to Dublin His Royal Highness visited the Colleges of Physicians and Surgeons. It is stated that some distinction in commemoration of the Prince's visit will be conferred on Dr. Carroll, the Medical Lord Mayor of Dublin. It is generally expected in Dublin that he will be made a baronet.

The St. Andrews Medical Graduates' Association have published a memorandum, addressed to the General Council

of the University, upon the question of the admission of the Doctors of Medicine of the University to be members of that Council. It is sought to exclude these graduates from the University Council on the ground that they have not resided within its walls and attended its lectures—a rather curious reason, considering that the University makes no real provision for a Medical education within its walls; in other words, possesses neither Hospital nor Medical School. But the action taken by the General Council of the University in the matter is, in our opinion, founded upon a narrow exclusiveness, which will not raise it in public estimation. The University was for a long time mainly supported by its Medical graduates. Between the years 1836 and 1866 the Doctors of Medicine paid £33,331 into its coffers, the Masters of Arts £762. It is proposed now to exclude the former class, but to grant seats in the University Council to the latter. We think the Medical graduates would have a right to complain were this done, and we hope that the Government will not consent to it.

Her Majesty the Queen has intimated her intention of subscribing £250 towards the rebuilding of the Royal Infirmary, Edinburgh.

The Governors of the Birmingham General Dispensary, convened at a special meeting, have determined not to accede to the request of the Medical Staff for payment in future for their services, by a majority of 13 against 21. One of the Governors, a Mr. Rotton, in the course of his speech, said—

"The true value of a thing
Is so much money as 'twill bring."

This being the rule in Birmingham, we must not perhaps be surprised that when money is asked for Professional services which have been given for so many years gratuitously, the public can pretend to be virtuously indignant. We only hope, for the honour of our Profession, that no Medical men will be found to come forward for the vacated offices.

At the meeting of the Royal Geographical Society, a letter was read from Dr. Livingstone dated February 2, 1867. Through Dr. Kirk, of Zanzibar, intelligence has been received of Livingstone as late as October last. He was then at Ujiji, and in good health.

At the meeting of the Medical Society on Monday night, Dr. Richardson corrected a report that had been made of his recent remarks on the diffusion of carbonic acid and nitrous oxide gases. These gases are of equal density, and by error Dr. Richardson was reported to have said that because the gases were of equal density there would be no diffusion between them—that they would not change places. What Dr. Richardson really said had reference to the rate of diffusion of gases of equal and of unequal densities, and to the fact that, as the two gases named were of equal density, they would diffuse equally—in a word, that carbonic acid would diffuse into nitrous oxide at the same rate as it would diffuse into itself. As the error alluded to arose from an accidental expression in some comments of our own upon Dr. Richardson's remarks, we have pleasure in rectifying it.

SIR JAMES CLARK.

We are glad to say that Sir James Clark is recovering steadily, though slowly, from his late serious illness. This was a severe attack of bronchitis, accompanied by great prostration, and complicated by distressing dyspepsia, which, along with the feebleness of heart consequent upon advanced age, at one time caused considerable alarm; his Medical attendants, Dr. Sieveking, and Dr. Kough of Bagshot, now, however, believe their patient to be making satisfactory progress towards recovery, if not, indeed, fairly convalescent, and do not think it necessary to continue their regular visits at present. Through his long and successful career Sir James Clark has been so accessible to his brethren, and has at all times so generously used his influence to promote their best interests, that his loss would be felt as a calamity by the whole Profession. We hope that his recovery will be uninterrupted, and that his life may be prolonged for many years. The Queen, as might be expected, has shown the most lively interest in the state of her faithful friend and Physician.

ABYSSINIA.

The attainment of the main object of the Abyssinian expedition has taken the public rather by surprise. The desponding tone and gloomy predictions of many of the leading journals and of their correspondents had prepared people to look forward to at least another year's occupation of the country, and to the exposure of our troops to all the malign influences of a climate which, as we frequently told our readers at the outset of the expedition, had received a worse character than it really deserved. The natural difficulties of transit and carriage of baggage having been overcome by our engineers, the ascent into the highlands proved that, so far as climate was concerned, no obstacle existed to prevent either the progress of our troops or their further stay in the country should such unfortunately have become necessary. The stores of provisions found in Magdala and the comparative facility with which our troops obtained supplies also prove that the information as to the capabilities of the country with which we supplied our readers was well founded. There now only remains to be effected the speedy withdrawal of the army, which we may hope is by this time well advanced on its homeward journey. There can be no doubt that the combination of the approaching hot and rainy seasons in the plains will prove a trying ordeal to the force, and the sooner it is passed through the better will be the result. It may be presumed that scarcity of water will hardly be one of the obstacles to be again encountered; but as malarial influences are an inevitable result of tropical rains, it is not improbable that an increasing sick-list will considerably increase the demand for ambulance conveyances and animals. The same causes may also yet try to the utmost the resources of the Medical Department and the energy and zeal of its individual members. Such is the case in all wars, that after victory, while the combatant portion of the army is enjoying the elation of success and the comparative repose consequent thereon, the Medical officers, who have already gone through a full proportion of all difficulties and dangers, have to undertake the most laborious and trying part of their duties, which in a retreat are aggravated by the reactionary depression and fatigue which they endure in an intensified form. King Theodore, by his tragic death, has earned for himself a better reputation than he ever had while alive, or possibly could ever have attained had he acted otherwise. There was a spark of heroism about the man which deserves a passing tribute from us. The fact of his first fighting in the open as well as he could, and then handing over his captives in safety, retiring to his trusted stronghold, holding out to the last, and eventually falling by his own hand, convince us that he may not have been so black as he has been painted.

VENTILATION AND CUBIC SPACE.

We are glad to perceive that our contemporary, the *British Medical Journal*, has profited by our remarks on the scientific principles of ventilation, but we could have wished that it had given a little more attention to them. It has evidently felt compelled to offer some rejoinder to our criticisms, but unhappily it has left the question just where it was before. "The question is not," says the *British Medical Journal*, "and never has been, 'ventilation *versus* cubic space,' and this cannot be too strongly insisted upon." In this we fully concur. The cry never has been "ventilation *versus* cubic space." It has simply been "cubic space or nothing." It is very unfortunate that our contemporary should have so thoroughly misinterpreted our observations on the difference in ventilation requirements between rooms constantly and rooms intermittently

occupied. We can, of course, only attribute this to a lack of clearness on our part in explaining a somewhat difficult theory. That our opinion has been totally misunderstood, however, is clear from the following statement:—"The recommendation (of 1000 cubic feet) is, and always has been, for the infirmaries only, 500 feet being held sufficient for the dormitories which are occupied either partially, or more generally not at all, during the daytime." Upon the principles laid down by us, and which are absolutely incontestable, if there was no efficient system of ventilation, the 1000 cubic feet for the infirmaries would present no possible advantage over the 500 as regards the dilution of carbonic acid—indeed, on the contrary, there would be an artificial advantage under such conditions in allotting the 1000 cubic feet to the dormitories, which are only intermittently inhabited. We trust our contemporary will more fully master the scientific principles involved in this question before committing itself to any further opinion. We beg also to correct a very important misstatement which we doubt not was made inadvertently. We *never* asserted, as the *Journal* contends, that we "can change the air often enough in a space of 500 cubic feet, so as to procure free and thorough ventilation without injurious draughts. Any one who turns to our article will see that we simply alleged—what we still maintain—that we had no knowledge as to the limit of cubic space within which the suitable amount of air per head per hour can be safely and comfortably introduced. We expressed an opinion that the point was one of ventilation; but we desired to obtain exact scientific knowledge by urging the necessity for further experiment.

THE EDUCATION OF VETERINARY SURGEONS.

We learn with great pleasure that an effort is being made to provide a sound, though simple, general education for young men intended for the veterinary profession. We have before us a prospectus of a "Training College for intending Students of Veterinary Medicine and Agriculture," which offers a hope of a very sensible and valuable institution. The list of patrons includes the names of the present and past presidents of the Royal College of Veterinary Surgeons and the whole staff of examiners, including the well known names of Professors Sharpey, Miller, and Taylor. The professors in the Royal Veterinary College and the principal Veterinary Surgeon to the army have likewise contributed their names, and the example has been followed by several of the leaders of agricultural science in England, such as Brandreth Gibbs, Esq., Dr. Gilbert, J. B. Lawes, Esq., and Professor Voelcker. The scheme is also deservedly supported by many who have only a general interest in its success, and we are glad to observe the names of Professors Anderson, Frankland, and Rolleston, and Dr. B. W. Richardson, among the list of patrons. The Principal of the new College is to be Professor Tuson, of the Royal Veterinary College, to whose exertions the enterprise is, we believe, mainly due. The proposed course of study is, of course, very simple, comprising English, arithmetic, zoology, botany, physics, and chemistry; and for the more advanced pupils, Latin, French, geometry, and algebra. Students of average intelligence might, it is believed, pass through such a course in a twelvemonth. The very simplicity of the education suggested illustrates the extreme need of it which exists. Enlightened veterinarians are constantly striving to raise the social position of the members of their profession; and in doing so they receive the cordial sympathy of all unprejudiced Medical men. But what chance of success can they have as long as the standard of education remains as low as it is now? It is not any mere class prejudice, as a general rule, which prevents the Medical man in a country town from associating with the local "vet." He would often be only too glad to make a new friend in any social position, provided he could find one of kindred tastes and culture to his own. Make your veterinarian a gentleman and a man of science, and he will soon have no cause to complain of want of social position. We can easily understand the cordiality with which the new scheme must be received by the Professors and examiners of the London College. The success of teaching depends so much on the previous knowledge of the student that every wise teacher will be sure to rejoice at anything which promises to give him a more cultivated and better prepared class; and however slight the education which the new College imparts, it cannot fail to turn out students who have mastered enough of the elements of knowledge to make their subsequent course of study rapid and profitable.

THE IRISH DISPENSARY MEDICAL OFFICER.

Attention has recently been directed to the condition of the Irish Dispensary Medical officer—a condition certainly worthy of all commiseration. Dispensaries in Ireland are on an essentially different footing from that which they occupy in this country, being more of the nature of state institutions than the offspring of private charity. So also are their Medical officers; here, for the most part, such appointments are held by young men for a short time only previous to their settling down in private practice, but in Ireland the appointments would seem to be looked forward to as careers for life. And how miserable the prospects of such men are may be ascertained by referring to an able pamphlet recently published by one of their own number. The average pay of an Irish Dispensary Medical officer is only £87, and for this paltry sum he is expected to peril his life by attendance on all sorts of cases in all sorts of situations, to be called up at night, and ride off into a desert for half a dozen or more miles, only to reach a destination which affords no shelter for his horse and but little for himself. From incessant labour there is no respite. Sunday and Saturday are alike to him, and should he fall ill he is commonly expected to pay for a substitute out of the paltry allowance afforded him. How men can be induced to study hard so as to master their profession, thereby entailing the expenditure of much money and valuable time, and be content to set themselves down in such a position in life, we can hardly imagine. Even an ignorant Irishman in this country, as in the case of Mullany, examined the other day at the Old Bailey—a man who could neither read nor write—was able to earn four or five pounds a week. Here, on the other hand, are well-educated gentlemen who have spent much in making themselves fit for the responsible positions they are to occupy, who have to dress and live as gentlemen, and, to this end, are endowed with an income not half the amount of that which can be obtained by an ignorant mechanic. There is, further, this disadvantage on the side of the Practitioner: his work entails much exposure to weather, consequently decided and material shortening of the active period of his life, if it be not cut off by the fevers to whose infectious influence he is continually exposed; yet there is no provision for his old age, ill-health, or for his widow and children, should he leave such behind. In addition to the emoluments of his appointment he may obtain those of public vaccinator by additional work paid at only half the rate given in England and Scotland, and producing on an average an additional £11 annually. So, also, registrarships are supposed to add to the income of the Dispensary Doctor; but all are not registrars, and, even if they were, the annual average sum available for each of the 785 Medical men employed in Dispensary work would be £15. Surely, if any state of things wants a remedy, the condition of the Irish Dispensary Medical officers belongs to the category. Let us hope that this will not long be the case.

FROM ABROAD.—THE FRENCH MEDICAL ASSOCIATION—M. DURUY'S ADDRESS AT THE SORBONNE—THE PARIS FACULTY.

The French General Medical Association has just held its annual meeting, and, in spite of some internal dissensions

which always will take place amidst such large bodies, and the altercations that have taken place between it and a somewhat similar body, embracing only the Practitioners of the department of the Seine, consequent on an abortive attempt at amalgamation, it seems to be in a flourishing condition. The number of local societies now aggregated amounts to 95, consisting of 6314 members, 546 members having died during the ten years the Association has existed. Its accumulated fund consists of 535,810 francs, being an increase of 64,214 since last year. Its pension fund is also on the continued increase, since all the Association possesses, beyond the sum of 50,000 francs kept in reserve, is so devoted. It is now proposed, with great approbation, to found bursaries or semi-bursaries in the various public schools, to be held by the sons of those members who are impoverished or encumbered with large families, not so rare a thing in the provincial districts of France as some of our readers may suppose. "Insurance against ignorance at the commencement, and against want at the termination of a professional career," will complete the programme of the Association, originally established for the protection only of those pursuing active Professional life. This is to be, to use the phrase of the day in France, the "crowning of the edifice," to be realised more effectually, we hope, than it has been in political life. M. Tardieu, the late Dean of the Faculty, is to be the new President in place of the original President, M. Rayer, deceased.

Another meeting of great interest has also just taken place at the Sorbonne, that of the delegates of the various Provincial Learned Societies which meet every year in Paris for discussion and for the distribution of prizes to any members who have distinguished themselves. The number of delegates was very numerous this year, and the meeting acquired additional interest from the presence of M. Duruy, the indefatigable Minister of Instruction, who has of late been the object of so much hostility owing to his liberal tendencies, especially as regards the improved education of ladies. In the present assembly he was among congenial spirits, and spoke with great hopefulness and vigour. We may cite some passages of his address, which has made a great impression in literary circles.

"Within the field of human thought we may conceive two concentric circles, the one having but short radii, while the diameter of the other is lost in the infinite. The first comprises those truths accessible to our senses and our calculations. Experience, observation, induction, and mathematical analysis, there solve problems and discover the laws of matter. This is the inviolable domain of science, which in successive generations strengthens and extends it, but beyond which it can never pass, even according to Newton himself, without at once losing its characteristics, its methods, and its certainty. Within the second we meet, and sometimes in a state of collision, with sentiment, pure reason and faith. Here is the religion of the ideal and of the divine; it is here that philosophy seeks for them, and religion finds them. These two worlds of the ideal and the real should approach each other without becoming confounded together; for science it, too, emanates from the Deity, for, in imparting to man that insatiable curiosity, that ardour in investigation which renders the possession of truth as necessary to him as the air he breathes or the food he eats, God has intended that he should penetrate, by the sole strength of his understanding, the mysteries of the material creation. By aid of the moral truths which history and philosophy lay open to him, man effaces old injustice, and reorganises society on a more Christian basis. Supplied with physical truths, he suppresses space and smiles at the ocean, pierces mountains that separate continents, wrestles with deleterious influences, and thrusts backwards death itself.

"But sometimes these potent truths dazzle and blind him, and he forgets on what severe conditions Nature consents to open up to him her secrets. He wanders from the narrow, but sure path of the experimental or geometrical method, and arrives at affirmations that cease to be legitimate because they are no longer based upon experience or calculation. Then breaks out the war between the men of faith and those of science, each deserting their own proper domain, and the cries of noisy and bootless rage resound on every side. All these noises will cease, and time has already disposed of many such. You are aware of this, gentlemen, most of whom pass your lives in the study of the history of society disturbed formerly by the same passions which are now none other than silent dust. A writer of our time, who can speak with authority on these matters (M. Ravaisson, 'La Philosophie au Dix-neuvième Siècle'), and who is well able to pierce through the agitations of the surface to the depth of things, declares, after a minute investigation, that spiritual doctrines are gaining ground in philosophic literature, and I have the right to say that they neither do nor will lose this in the schools of the State. Moreover, even if these disputes should continue, we must not complain. Rivalry, at the present day, can only conduce to a fruitful emulation, and it ought to be no matter of regret amidst all the din of the money-changers to find minds enkindling even passionately with these grave problems. They are agitating entire Europe, and you, gentlemen, who are wrestling with so much vigour against error and ignorance in the sciences of history or in those of nature—you, who in all this are pursuing the triumph of mind over matter, can only be encouraged and sustained by the grand spectacle which the world displays to you. Never had the field of science so many and such zealous cultivators. To this ardour on the part of *savants* the zeal of governments responds; for there is scarcely a legislative assembly in which at the present time some scholastic law or institution is not under discussion, and everywhere the people, as it has done in France at the voice of the Emperor, hastens to repair to the schools. We must not feel surprised if, among the ancient pastors of the people who kept them under the shade of cathedrals, some may feel uneasy and desire to restrain the movement. And yet human science wishes not to divert people from the sanctuary. It only demands that, while listening to that sweet and holy voice which has spoken to them during eighteen centuries, they may likewise hear the new voice, which is but a second revelation of God through science."

M. Duruy was enabled to announce the gratifying circumstance that a greatly increased sum had been allocated in the Budget to scientific and educational purposes, and that additional facilities for investigation by means of laboratories and other appliances would be provided. The progress of Germany has had much to do with the impulse about to be given; and truly it is a more generous and nobler emulation than the craving to get possession of this or that fortress on the Rhine, certain to be attended with bloodshed, misery, and heart-burning.

In some connexion with the subject of the above address, we may state that M. Wurtz, Dean of the Paris Faculty, has addressed an urgent protest to the Government against what he regards as the aspersions which have been cast by the cardinals in the Senate on the Faculty on account of its materialistic teaching. It is, however, stated that this protest emanates from himself personally, and was never submitted to the Faculty before being sent to its destination. This fact, as well as the non-publication of the document in question, much lessen its value. The cardinals intend bringing on the question of free Medical teaching independent of the Faculty—a project which would receive sanction in many quarters holding very different views to its present promoters.

PARLIAMENTARY.—THE MEDICAL PRACTITIONERS' (COLONIES) BILL—THE FEVER IN THE MAURITIUS.

In the House of Lords on Monday, April 27, the Medical Practitioners' (Colonies) Bill passed through Committee.

On Tuesday, in the House of Commons, in reply to questions by Mr. Whalley and Admiral Erskine in reference to the fever in the Mauritius, Sir John Pakington said that only one death had occurred amongst the men of the 86th Regiment, although there had been much sickness. The women and children had suffered more severely.

MR. TORRENS'S ARTISANS AND LABOURERS' DWELLINGS BILL.—Many of the London parishes are opposing this Bill, in consequence of the additional burden it will throw on the ratepayers.

MEDICAL NOTES ON PRISONS, PRISONERS, AND PUNISHMENTS.

THE CITY PRISONS.

No. I.—NEWGATE GAOL AND HOLLOWAY HOUSE OF CORRECTION.

Besides the prisons just named, the Whitecross-street Prison for Debtors belongs to the City, and is used for the reception of a certain class of criminals as well as for debtors, but the principal means of detention and punishment rest in these two. Newgate is, however, not only a City prison; it is the gaol for the county, and being, as it were, the regular appendage of the Central Criminal Court, receives prisoners for trial from Middlesex, Surrey, Essex, and Kent. Its inmates are thus of a rather diverse sort, and are constantly changing, none being retained for any length of time after their trial. This, in fact, is the essential character of a gaol as distinguished from a house of correction. The existence of county gaols is extremely ancient, and for a long period they were the only places to which prisoners could be legally committed. They were, and are, under the control of the sheriffs of the county; but at an early date lords, manors, and boroughs had become entitled by franchise to places of confinement of their own, which, becoming in course of time recognised by law, gave rise to a second set of prisons, which, being private property, were subject to much greater abuses than the county gaols. A third set are the bridewells or houses of correction. These take their name from a royal palace which stood in the time of Henry the Eighth, close by Blackfriars-bridge, beside a spring named St. Bride's-well, and by Edward the Sixth was converted into a lodging-house for wayfaring persons, and a house of correction for vagabonds and idlers. These bridewells, as they were then called, were more extensively introduced during the reign of Elizabeth, and were placed under the control of the magistrates.

The two prisons of which we now speak may be taken as types of the first and last classes. The gaol of Newgate is for the reception of all prisoners belonging to the City of London accused of crimes or misdemeanours, before and after committal by the magistrates; also for those who, having perpetrated crimes within the jurisdiction of the Central Criminal Court, have been committed for trial, for prisoners who have been sentenced to penal servitude until they can be removed to a convict prison, and for all under sentence of death for murders committed in Middlesex or on the high seas until their execution. The Holloway House of Correction, again, is exclusively for the reception of rogues and vagabonds who have been sentenced to imprisonment for two years or under on account of crimes committed in the City of London. The next sentence over two years' imprisonment being five years' penal servitude, those who have received such a penalty pass under the charge of Government.

Newgate, more than any other prison in London, impresses on the beholder, whether without or within its walls, a notion of security. Externally, there is the large expanse of wall without any opening save the debtors' door, now a mass of iron, and that ordinarily used, closed at night by a huge barred gate; interiorly are vaulted passages, iron gates and locks in abundance. Viewed from the street, the prison is obscured by the lofty boundary wall, for that which is visible is not the true wall of the prison, but one separated from it by a considerable interval, which may be used as an airing ground. Internally, the male portion of the gaol consists of two parts—one on the old system of association, there being halls in which a number of prisoners were confined in company, and the new, which is built on the separate system. The former is but rarely used—never except when an accumulation of prisoners previous to a general gaol delivery renders the separate cells inadequate for their reception. In fact, the only inmate ordinarily contained in this portion of the building is that instrument which many are accustomed to bless in the same breath with the name of Baron Bramwell—we mean the whipping-block. This terror of garrotting evil-doers consists of a sort of box, opening in front like a cupboard, and having a strong upright post rising from its centre behind. When the door is opened two ridges are observed, one on a level with the top of the box, the other a short way from its floor; and in either of these two semicircular cuts are made, which, corresponding with two others in similar projections from the posterior part of the box, constitute, when the door is closed, two holes corresponding in size with the thighs and ankles of the victim, which they hold so tightly that but little motion is possible. The upright post already alluded to rises to the level of a man's chest, and there terminates in a cross-piece, having in its upper surface sockets similar to those already alluded to, in which the hands may be tightly held by fastening down a corresponding bar, and thus the culprit is secured. The holes in the transverse bars are of two sizes, for boys and men, and—with what one might almost call a refinement of cruelty—are carefully padded, lest the prisoner should injure his wrists. When necessary, Calcraft applies the lash. To the subject of punishment by flogging we shall again have to return, but whilst on the subject we may reflect upon what we consider a dangerous drawback from the recognised efficiency of the punishment. We are no advocates for the restoration of an institution like whipping at the cart's-tail—a mode of punishment calculated only to brutalise a barbarian people; but, on the other hand, we question the advisability of keeping the infliction of such punishments secluded from the eyes of all save the prison warders, as is now the custom in Newgate. We would not even recommend that all in the prison should be witnesses of a flogging, for it often happens that innocent men who have been well and gently nurtured are within the prison walls, but there is also invariably a large proportion of well-known gaol birds, the scum of the London streets. To these the sight of a flogging would act more powerfully as a deterrent than a month in prison would; for wherever the system, however imperfectly, has been introduced, it has been found to produce good results. To this pseudo-philanthropists might reply, that the objections urged against public executions might be brought to bear with equal force on such spectacles—that the witnesses would be hardened, not softened, by such a scene; but the circumstances of these prisoners must be borne in mind. They are professional criminals, to be kept from the commission of crime by every means in our power. They witness this punishment in silence; no jeering remarks break in to diminish the efficacy of the spectacle; and when they retire to their solitary cells they have time to reflect on the causes which have led to the man's position and their consequences, for the sentence should be read aloud in the hearing of all.

Newgate being a county as well as a city gaol, prisoners convicted of murder in Middlesex are retained in it until execution. Most gaols have no special cells for such prisoners; but in Newgate there are two condemned cells. Until a very short time ago these opened on the outside of the prison, close to the corner formed by the Old Bailey and Newgate-street, but, owing to recent occurrences, we think that the magistrates have most judiciously caused them to be opened on the prison side only. Most people who visit this prison are anxious to see these condemned cells, thinking they will find in them something different from those adapted for the ordinary run of prisoners, but there are few things which thus mark them out. The grand peculiarity is that they are double the size of ordinary cells, the reason of which is obvious, as, from the time a man is condemned to death up to the period when he has suffered the uttermost penalty of the law, he is never left *alone*, one warder being constantly present during the day and two during the night. This we esteem to be one of the most horrible facts connected with capital punishment. Not that we condemn it—far from it; but that a man should know that henceforward for ever, until he is no more, he can never be *alone*, is surely something dreadful. The only other peculiarity about these cells is that the closet, situate in a corner, is surrounded by a black curtain, thus insuring a certain amount of retirement; but how little!

(To be continued.)

NOTES ON COHNHEIM'S EXPERIMENTS.

The following notes may be of use to those who are desirous of repeating Cohnheim's experiments upon the blood-corpuscles. A full-sized frog should in all cases be selected, otherwise it is difficult to regulate satisfactorily the amount of woorara required to produce paralysis without killing the animal at too early a period. From three to five minims of a solution containing one grain of the poison to a fluid ounce of water will usually prove sufficient, when injected subcutaneously, to produce complete motor paralysis in about half an hour. This step is common to both experiments.

Experiment 1.—To observe the passage of the white corpuscles through the capillaries and the formation of pus. A

glass plate is taken, sufficiently large to support the frog upon it, and to this is attached a very thin disc of cork, with a hole in the centre large enough to present a fair field under the microscope. The abdomen of the frog is to be opened, and the mesentery carefully drawn out. This is then to be attached to the disc of cork, and moistened from time to time by the application of a little artificial serum, which may be made of albumen 1 part, common salt $\frac{1}{10}$th part, and water 10 parts.

The following phenomena may then be observed: The arteries are first seen to contract, then gradually dilate until, in about an hour and a half, they attain their maximum. The current at first becomes more rapid, then gradually retarded, and in about two hours from the commencement a movement of oscillation takes place preparatory to the occurrence of complete stasis. It is during this stage that the corpuscles, especially the white ones, may be seen to escape from the vessels, principally from the small veins, but also, we believe, from the capillaries. In this experiment the stasis is the result of inflammation produced by the exposure of the serous membrane to the air, and the white corpuscles will be seen to pass out in far greater numbers than the red ones.

Experiment 2.—To observe the passage of the red corpuscles through the walls of the vessels during venous and capillary congestion. The web of a frog's foot having been conveniently arranged for examining the circulation in the ordinary manner, a portion of skin is to be removed from the inner part of the groin, so as to expose the femoral vein, around which a ligature is to be passed and tied. It is desirable to include a small quantity of the muscle surrounding the vein in the ligature, partly because the walls of the vessel are very delicate and may be ruptured, and partly because it is necessary at a later stage to loosen the ligature again, and this is a matter of some difficulty when the ligature is tightly applied to the vein alone. A small bulldog forceps or a serresfine may be substituted for the ligature with advantage.

The immediate effect of the application of the ligature is to retard the stream and to cause dilatation of the veins; the current gradually becomes slower and slower, until the usual oscillating movements commence, preparatory to the occurrence of stasis. The blood corpuscles are seen to be collected together into masses, whilst a few solitary individuals lie attached to the parietes of the vessels. The wall now becomes pouched, and sometimes the corpuscles may be seen to pass out, even during the occurrence of stasis in the vessel. When, however, the vein is released from the ligature, the process takes place rapidly, and red corpuscles may be seen in every stage of transit through the walls: some, adherent by slender processes to the inner wall, vibrate backwards and forwards in consequence of repeated blows received from successive corpuscles passing along in the stream; others are firmly impacted in the walls; and others again are only slightly adherent to the outer wall, or are found in the surrounding tissues. The web must be occasionally moistened, and not allowed to become inflamed if it can possibly be avoided.

GRESHAM LECTURE

DELIVERED BY

E. SYMES THOMPSON, M.D., etc., in Easter Term.

ON SLEEP, etc.

A THIRD part of our lives we spend in sleep, and are thus naturally too familiar with its phenomena to be surprised at its mysterious nature. During sleep the brain is almost bloodless; a gush of blood heralds the return of reason, while in dreaming a pink suffusion intermediate between the circulation of waking and sleeping is observed (Durham). This seems to indicate incidentally that true sleep is dreamless. Every idea which floats through the mind, every emotion, every exercise of reason or volition, is accompanied by definite [illegible], or, in other words, by a definite exertion of physical force. There is no reason to doubt, but every reason to believe, that this force is a correlate of the universal cosmical force. It is indeed probable that it is a vibratory or [illegible] force, similar in character to heat and electricity. It is possible that although the higher or spiritual element in our consciousness may remain as intangible and unknowable as it now appears, we may yet learn to trace its operations, to some extent at least, by studying the physical phenomena with which, in our present state of being, it is associated.

We [illegible] more closely associated with force than it is with matter, and it is to the study of force that we should look for a measure of its workings. The whole available force in the body is undoubtedly derived from oxidation. This oxidation is mainly, if not entirely, effected in the blood, and it is therefore evident that a continuous flow of blood to the nerve centres is necessary as a source of power as well as for regeneration of the nerve tissues. The sympathetic nerve centres are supplied continuously with blood, and the force generated by these centres is, like the blood supply, continuous, so that the operations they govern, whether of secretion or involuntary muscular action, go on without intermission, or rather without long periods of rest; for it must be borne in mind that the heart rests between each pulsation at least a quarter of the time. The respiratory muscles rest one-third of their time. In walking some muscles rest while others are in action. But there is no rest for the brain except in sleep. The cerebrum, if not the whole of the cephalic ganglia, receives a full supply of blood only during waking hours, and is therefore subject to frequent intermissions in the discharge of its functions.

It has been shown (Ranké) that the feeling of fatigue in voluntary muscles is due partly to the sensation of impotence, the store of force being exhausted; but chiefly to the accumulation of the products of disintegration in the tissues. It has been shown, too (Claude Bernard), that the direction and intensity of the flow of blood are greatly under nervous control, and it is probable that the condition we call sleep is induced by the operation of the nerves whose special business it is to control the flow of blood to the brain. The blood ceasing to flow freely to the brain, there is no store of force to draw upon; nerve currents can no longer be produced. If during this state a ray of light fall on the retina, no perception follows, for though it may produce an afferent current in the optic nerve, this current will not have sufficient intensity to stimulate into action the feeble force remaining in the sensorium; so it dies away without stimulating new nerve currents. The profoundness of sleep is probably proportionate to the amount of blood circulating in the brain, and it is probable the brain is never absolutely destitute of blood. Hence, a powerful stimulus, as a loud sound or bright light, may nearly always stimulate into activity sufficient force to awaken reflex currents which shall draw more blood to the brain, and so produce the waking state.

Anæsthetics not only act upon and check oxidation in the blood, but arrest the blood supply to the brain by their action on the nerves which regulate it.

The enormous physical effects which may follow a very slight physical stimulus prove that the stimulus does not supply the force, but simply acts as a stimulus, like a spark on gunpowder.

It must not be thought, however, that there is no blood in the brain during sleep, for the vital fluid is just as essential for the nutritive work which is so actively done then as it is for the functional work of waking hours. When the circulation is "slowed," exosmosis, with nutrition of tissue, goes on most rapidly, while activity of circulation favours endosmosis of those products of oxidation which, if retained, would check further action.

We do not know the precise nature of the waste product produced by brain action (it is probably allied to the lactic acid developed by muscular work), but, as with muscles, burning tapers, and generators of electricity, unremoved products interfere with further action. These products are formed in close brain work more rapidly than they can be removed; they check oxidation and functional activity, and thus tend, by calling for repose, to prevent exhaustion. The feeling of lassitude and drowsiness attendant on this state continues till the waste products are got rid of. To this end, healthy action of all the excreting organs is essential to clear intellect and happy activity of mind.

The lecturer having placed the foregoing physiological data before his audience in the simplest language, freed from all technicality and forensic verbiage, showed that regular uninterrupted repose was essential to mental and physical health; that the blood, whence all nerve force, as well as muscular force, is derived, must be suitably fed, and the excreting organs kept in good working order.

While it is true that the more active the mind, the greater the need of sleep, yet the sanguine and energetic in whom "the lamp of life burns strong and bright," whose nutritive processes are rapid and efficient, sleep deeply and quickly, [illegible] five hours as much rest and recreation as

the plethoric and phlegmatic, in whom "the light of intellect is dim," secure in nine or ten hours of disturbed slumber. If much work is to be done, the former state is to be aimed at; if "time to be killed," the latter.

Although habitual impressions, as the "morning gun" on shipboard, do not rouse the sleeper, the cessation of habitual impressions rouses at once, as at the end of a sermon. The instance often recorded of the signal lieutenant who could not be awoke by the loudest noise or most violent shaking, but started at once into wakeful attention when the word "signal" was whispered near him, illustrates the fact that receptivity of the sensorium is needed before a stimulus conveyed by the senses can rouse dormant consciousness.

Sleeplessness after prolonged study, due to passive dilatation or deficient tone in the cerebral vessels, is to be treated by those means that withdraw blood from the head—*e.g.*, warm water to the feet, cold splash of face, shoulders, etc., and vigorous friction, so as to draw blood to the rubbed skin and rubbing muscles. Prolonged wakefulness was shown to be a cause of deficient mental power, insanity, etc.

The lecture, which was profusely illustrated throughout, contained a description of some of the physiological and psychological phenomena of dreams, and concluded with a vigorous appeal to the audience to avoid the evil of the day, which is not so much overwork as undersleep, and to set an example to the public in securing that much-abused, but capital form of rest, rational sleep.

REVIEWS.

Physiologie des Mouvements, démontrée à l'aide de l'Expérimentation Electrique et de l'Observation Clinique, et applicable à l'étude des Paralysies et des Déformations. Par le Docteur G. B. Duchenne (de Boulogne). 1866. Paris: Baillière. London: Williams and Norgate.

Most of our readers are probably acquainted with the name of Duchenne in connexion with a peculiar form of paralysis which has only of late years attracted much attention. It is, however, as far back as the year 1849 that, having discovered the occasional existence of muscular atrophy which had previously been confounded with the ordinary forms of paralysis, our author addressed a memoir on this subject to the Academy of Sciences with the title "Recherches Cliniques sur une Espèce Morbide Nouvelle: l'Atrophie Musculaire avec Transformation Graisseuse." This discovery led him to devote himself to the electro-physiological studies which have recently gained him a world-wide reputation; for this remarkable affection, which in some cases only implicates a single muscle, or even a portion of a muscle, and sometimes extends to the adjacent superficial or deeper-seated muscles, afforded a new field for the clinical observation of the phenomena of (what he terms) *muscular electro-physiology*. It presented him, so to speak, with a series of isolated muscular structures whose functions he could examine separately. When the superficial muscles were destroyed by this affection, those lying below them virtually became subcutaneous, and were thus accessible to the action of that form of electricity which is now generally known as Faradisation; and since the muscles which are not attacked preserve their voluntary movements, it became an easy task to analyse the disturbances introduced into the combined action of any group of muscles by the withdrawal of the action of the atrophied muscles. Other kinds of local paralysis, such as the paralysis from wounded nerves, and especially the fatty paralysis of infancy, largely increased his field of observation in this department of physiology, and by the year 1851 he had collected a sufficient number of clinical observations (made on all parts of the body, and under the most varied conditions) to warrant him in publishing several series of electro-physiological researches on the functions of the muscles which move the head, shoulder, leg, foot, and diaphragm, as well as of the facial muscles. In 1855, after four years' additional study of the subject, his work entitled "*De l'Electrisation localisée et de son Application à la Physiologie, la Pathologie et la Thérapeutique*" appeared, and was so well received that in 1862 a second edition, which was entirely recast, was required; and, as a supplement to this second edition, he published the following year an "*Album de Photographies Pathologiques*," containing seventeen quarto plates, with illustrative text. He then produced "*Mécanisme de la Physionomie Humaine*," with an atlas containing seventy-two photographs, serving to illustrate the state of the muscles in attention, reflection, aggression, pain, joy and happiness, sadness, etc.; and the present volume, whose title stands at the head of this article, may be considered as representing his labours in their most complete form. It contains a complete history of the results at which the author has arrived after twenty years' laborious clinical observation. It consists of nearly 900 pages, is admirably illustrated by more than 100 wood engravings, and is divided into four parts, of which the first two are devoted to the study of the movements of the upper and lower extremities, while the third part treats of the movements of respiration and of the vertebro-cranial column, and the fourth describes his experimental researches regarding the physiology of the muscles of the face. A chapter is devoted to each important group of muscles, and an article (with many subdivisions) is assigned to each muscle. Thus, the second chapter of the first book treats of "The Individual Action and the Uses of the Muscles which move the Arm upon the Shoulder." This chapter is divided into seven articles, devoted respectively to (1) the deltoid, (2) the supraspinal, (3) the infraspinal, teres minor, and subscapular, (4) the latissimus dorsi or great dorsal, (5) the great pectoral, (6) the teres major, and (7) the anconeus muscle, better known in this country as the long portion of the triceps. Each muscle is considered under the two following heads: its *electro-physiology* and its *pathological physiology*. We will take the great pectoral as an illustration of his mode of treatment. The electrical experiments performed on the upper and lower parts of the muscle, and the results they yield, are first noticed, and these are followed by remarks upon these experiments. The following are the most important conclusions drawn from these experiments—viz., (1) that physiologically as well as anatomically the great pectoral must be regarded as two distinct muscles, an upper and a lower, which may be made to contract separately and have special uses. The upper muscle depresses or elevates the arm according to the position of the limb. He only admits with limitation the oblique motion upwards and inwards, which, according to most physiologists, this muscle impresses on the arm when its direction is parallel to the axis of the trunk; such a movement he regards as strained and more limited than is supposed. (2) No physiologist, he observes, has described the great depressing action which this muscle exerts on the arm when the limb is elevated vertically, and which is only arrested when the arm reaches the horizontal position. This action is called in play in the downward blow of a staff or sword, and likewise in the position which the priest assumes when he depresses his previously elevated arms in the act of giving the benediction. (3) Another important part that this muscle plays, which has not been duly noticed, is the horizontal forward movement which is executed by the arms crossed in front of the trunk, as in the act of swimming and under many other circumstances. In this movement the deltoid co-operates. (4) When the arm is extended along the side of the body, the muscle can not only compress it powerfully against the trunk, but it has another and more important function—that, namely, of elevating the shoulder-joint with much force, and of thus supporting the greater part of any heavy weight that may be resting on the shoulder. By localised faradisation of the muscle, the author states that he can evoke at his will the various attitudes expressive of fear, humiliation, prayer, shivering (as from terror or fever), etc. (5) The lower muscle always depresses the arm, whatever may be its position, and its depressing action is very much more powerful than that of the upper muscle. Under the head of Pathological Physiology, the author adduces clinical facts (admirably illustrated by figures of cases in which this muscle is destroyed by fatty degeneration), showing *inter alia* (1) that the upper part of this muscle does not draw the humerus forwards across the chest so as to cross the arms, but that this action is ordinarily effected by the anterior portion of the deltoid, although he admits that in cases where forcible movements are required, the two muscles may co-operate; (2) that, although electro-physiological experiments show that the arm, when extended horizontally outwards, is directed horizontally inwards by the contraction of the upper portion of the great pectoral, a patient who is deprived of the use of his pectorals can perform this movement by the successive contraction of the most anterior fasciculi of the deltoid, but the movement under these circumstances is feeble, and soon gives rise to fatigue; (3) that an atrophied state of the great pectorals in no way affected the normal respiratory process; and (4) that in cases of atrophy of the lower portions of the great pectoral and of the latissimus dorsi the shoulder is raised by the predominating force of the middle third of the trape-

zius. The clinical remarks which we have here condensed into a short paragraph extend over eight pages in the original work, while the complete discussion of the great pectoral muscle extends over thirteen pages. When all the muscles which combine to execute any group of movements (as in this case the muscles which move the arm upon the shoulder) have been thus elaborately considered, the author sums up the chapter with a general *résumé* of the chief physiological propositions which follow as natural consequences from the facts which he has expounded. The chapter which we have been considering concludes with twenty-three such propositions, which include far more information than we could find in any other work on (1) the movements of elevation of the humerus, (2) the movements of rotation of the humerus, and (3) the movements of depression of the humerus. To analyse such a volume in these pages would be impossible, the author's "analytical table of contents," drawn up in the form of a skeleton-syllabus, occupying no less than forty pages. We heartily thank Dr. Duchenne for this valuable contribution to our physiological and pathological knowledge.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, April 27.

In a previous letter your readers were informed of a scheme for the improvement of the Royal Infirmary. It was then undecided whether an entirely new Hospital should be constructed on a new site, or whether a new Medical Hospital merely should be built. The latter proposal has now been definitely adopted, principally on the grounds of the existing Surgical Hospital being in all respects an admirably constructed building, and of the great loss that would be incurred by sacrificing it for the purpose of rearing a new general Hospital on a new site.

The Medical department of the Royal Infirmary is contained in a venerable building that has served its present purpose for about 128 years, and this long age has induced in it many failings and infirmities. A very considerable expense has therefore been entailed on the funds of the charity to maintain it in repair, and latterly these expenses have so greatly increased that, on the ground of economy alone, it has been found advisable to pull it down and build a proper edifice in its place. The promoters of this resolution have acted with a most praiseworthy energy in recommending it to the public. Among other proceedings they have inaugurated a fund for the purpose at a large and influential meeting, held on April 17. This meeting was presided over by the Lord Provost of Edinburgh, and among those who moved and supported the resolutions submitted to it were the Earl of Haddington, the Lord Advocate, Lord Polwarth, the President of the College of Physicians, the President of the College of Surgeons, the Rev. Dr. Maxwell Nicholson, and Mr. Moncreiff, late Lord-Advocate. Several eloquent appeals were made in behalf of the project, one by Dr. Nicholson was especially so. He showed that the Royal Infirmary was a charity whose benefits were open, without restriction of any kind, to all the curable sick, from whatever part of the world they came, and an institution intimately connected "with a Medical school that has shed lustre, not on Edinburgh merely, but on Scotland and on Great Britain;" that it was further an injustice to the resident Medical officers to expose them to the increased dangers necessarily dependent on exercising their duties in a Hospital whose condition is extremely insanitary. The latter argument has, unfortunately, been illustrated in a most impressive manner by the mortality among the resident Physicians during the present year.

We learn from statements that were made at this meeting that the project includes the removal of the tall block of buildings that constitutes the portion of Nicolson-street immediately facing the University, and separating it from the Infirmary. The removal of these buildings will not only greatly improve the ventilation of the Infirmary, but it will materially assist, along with the proposed widening of North College-street, in improving the appearance of the University. The estimated expense of the new Medical Hospital is £100,000. Towards the payment of this sum the Infirmary is able, from accumulated capital, to contribute £40,000; the remaining £60,000 must, therefore, be raised by donations. The appeal to the public has been most heartily responded to. The treasurer of the fund was able to announce to the meeting that £24,785 had been already given, and that this sum included a large number of subscriptions of £1000, of £500, of £200, and of other munificent donations. Since the date of this meeting, we understand that the further subscriptions have raised the gross sum subscribed to upwards of £35,000.

This immediate and liberal response to the appeal on behalf of this nobly philanthropic scheme encourages us to hope that the large sum required will be obtained. The decision to retain the Medical Hospital in its present position is an extremely judicious one, were it only on account of those advantages that accrue from its proximity to the University. The present site has further advantages in being closely connected with the Surgical Hospital, in being in an extremely central position, and in the immediate neighbourhood of those portions of the city in which the poorer classes reside. That there is great reason to be dissatisfied with the old building is appparent from the fact that its wards are only eleven feet high. The sanitary science of the present day can express but one opinion as to the adaptability of such wards for the habitation and treatment of the sick.

The half-yearly statutory meeting of the University Council was held on April 21, under the presidency of Professor Christison. Among other business, the question of a Parliamentary representation of the Scotch Universities was discussed. A motion was introduced by the Rev. K. M. Phin that the Council should petition Parliament to grant at least two representatives to the Universities of Scotland. This proposal was unanimously agreed to, and a petition will accordingly be transmitted to the Duke of Argyll for presentation to the House of Lords, and to the Right Hon. Robert Lowe for presentation to the House of Commons.

There is a growing feeling in favour of the introduction of natural science into the Arts curriculum of our Universities. This has been already manifested in the Universities of Aberdeen and St. Andrews, and it was expressed at this meeting by a motion introduced by Professor Blackie to require all students who come forward for the degree of A.M. to "produce a ticket of attendance on some one of the classes of natural science in the University—viz., natural history, chemistry, and botany—and stand a satisfactory examination on the subject which his ticket indicates." Professor Blackie's proposal was, however, rejected for one by Professor Masson, which leaves it to the discretion of the student to add to the present Master of Arts curriculum any one of the following branches of natural science—viz., chemistry, natural history, botany, and geology. Professor Bennett moved that physiology should be included among these branches, but his proposal was rejected by a large majority. It is obvious that, however important it may be that physiology should be more generally studied, it would be extremely difficult, if not even impossible, to give a valuable course on this subject to men completely ignorant of the elements of anatomy.

We draw attention with extreme pleasure to a movement that has been originated to perpetuate the memory of our late distinguished Principal. The respect universally entertained for the eminent talents and virtues of the late Sir David Brewster has suggested that some lasting monument should be reared to mark the esteem in which he was held by his contemporaries. It was decided at a recent meeting that measures should be taken to erect a statue in some public place in Edinburgh. The committee that was appointed for this purpose have now published a list of the intimated subscriptions, and we are glad to see that nearly £600 have already been obtained. The statue will cost about £1000.

Speculation is still busy in anticipating the appointment to the vacant Principalship. The issue appears to be now narrowed to one between Sir James Simpson and Sir Alexander Grant, and there is good reason for believing that Sir James will be appointed. It is expected that the election will be made towards the end of June.

The Pesthouse Charity. — The parishes of St. Martin-in-the-Fields, St. Clement, St. James, St. George, Hanover-square, and St. Ann, Soho, are placarded with notices respecting the arrangement made with King's College Hospital for the reception of cases of infectious illness, except small-pox, from amongst the poorer classes in the above parishes. There seems also to be a liberal provision for out-patients.

GENERAL CORRESPONDENCE.

PRACTICE IN THE SPANISH WEST INDIES.—No. V.

LETTER FROM DR. SULLIVAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Towards the end of summer, especially after a hot dry season, our newly arrived Practitioner at Cuba will most probably be summoned to a case of yellow fever, and, however theoretically well versed he may consider himself, will feel rather startled when called to a case practically for the first time. The first impression produced on the mind of a shrewd observer is extremely valuable in enabling him to form a true diagnosis of the disease. Should the patient, on your entering the room, stare at you with an imploring look full of suspicion and anxiety, with eyes red, watery, and injected, and rather swollen; should he raise his hands to his temples, expressive of intense pain; should he complain of pain in his limbs and down his back, with frequent sighing and tossing about in his bed; should his tongue cleave to his mouth, and, although moist, be red at the tip and edges, his thirst be insatiable, and, above all, should he complain of pain and tenderness over the region of the stomach, we have strong reason to suspect a case of yellow fever, although the characteristic yellow tinge of the skin and conjunctivæ, or vomiting, may not as yet have declared themselves.

A few hours later, say on the following morning, the Practitioner may probably find an improvement in the symptoms. The patient may appear more composed and more cheerful; but such improvement, as I have experienced to my annoyance, is often only temporary and very deceitful. Indeed, some of the most fatal cases assume this form, especially should a suppression of urine take place. On the other hand, he may find the symptoms of yellow fever far more decided, the horror and anxiety greater, the eyes tinged with yellow; the thorax, and then the face, will have become jaundiced, and vomiting of matter varying from a whitish glairy mucus to black coffee-coloured grounds. The pain may extend by occasional fits down the abdomen, producing violent contortions, and even convulsions, which may end in death; or slow lingering typhoid symptoms may supervene, the pulse becoming slow and intermittent, the tongue dry, teeth and gums covered with sordes; petechiæ and hæmorrhages may take place; or the patient may die from exhaustion after incessant vomiting.

The symptoms and progress vary greatly in different localities and different epidemics. The manner of death varies greatly also. Some die in great agony; others from exhaustion, with little or no pain; others, but very rarely, die suddenly, having exhibited previously but few of the symptoms of yellow fever.

I well remember the case of an Italian watchmaker who had been very popular amongst the Spaniards, many of whom on the sultry evenings would sit outside his door, and listen eagerly to his interesting tales. This man died suddenly. He had complained only for some days previously of slight pain down the legs, of some lowness of spirits, and a sense of heaviness about the head, but he had noticed a great diminution in the secretion of urine, and at length a complete suppression. The Physician who attended him assured me that after death the body became quite yellow, and the mucous membrane of the stomach soft and crumbling, of a dark red colour.

I have already observed in a former paper that the poison of malaria will produce different effects in proportion to its distance from the earth's surface and to its degree of concentration—in its greatest intensity producing its worst effect upon the stomach and liver, in a less concentrated state producing intermittent and remittent fevers. Hence it may be observed that yellow fever takes its origin in seaports where the malarious poison is intensified by great and continued heat, and by emanations from harbours polluted by the offscourings of an overcrowded seafaring population, as in St. Thomas's, Vera Cruz, New Orleans, Havana, etc.

It is not easy to obtain a post-mortem in the Spanish West Indies. The Spaniards entertain great objections to interference with their dead; add to this the necessity of immediate burial in a tropical climate. However, I have had an opportunity of making five post-mortems after yellow fever, and I will extract from my note-book one case, which I have considered the most instructive, and which I believe may serve as an example of the lesions usually found.

In 1865 I was called to consult with a Spanish Physician on board a German vessel just arrived from Europe. The consultation over, I noticed a fine young man, florid and healthy, walking up and down the deck: he had just arrived as passenger. This young man went on shore at 7 p.m., remained out all night, carousing and indulging in all manner of excesses. At 8 next morning he was seized with the most violent symptoms of fever, was conveyed on board at 11, and died in extreme agony at 4.30 in the afternoon. I was called to visit him about an hour previous to death. Vomiting of black sooty matter had already taken place; at an interval of ten or fifteen minutes he was seized with violent pains in the epigastrium; these, so soon as they extended down the abdomen, were followed by contortions and convulsions of the most agonising character, and in one of these accesses he died, his body having become partially jaundiced half an hour before death. Availing myself of so favourable an opportunity, I proceeded immediately to examine the body. The mucous membranes of all the outlets, nose, ears, fauces, etc., were congested, flaccid, rugged, and easily torn; skin yellowish in patches, especially about the alæ of the nose and chest; conjunctivæ deeply tinged with yellow; liver enlarged, soft, of a dirty butter colour; gall bladder full. Ductus communis, to its entrance into the duodenum, empty, contracted, like whipcord. The mucous membrane of stomach of a dark red colour; thick, but very soft, and bleeds when pinched; that of duodenum very red, redness and that of small intestines gradually diminishing downwards. Both contained a fluid varying from a dark red to black. I found two intussusceptions in the small intestines from six to eight inches in length; the invaginated portion was easily drawn out of that which had enclosed it, and no inflammation of either could be traced.

In this case, as in all sudden ones, the abdomen became very hard and tender over the epigastrium and right hypochondrium. This hardness and knotted feel of the abdominal muscles was usually followed by a general jaundice of a bright yellow colour; then the countenance became more intensely anxious, the pulse became hard and quick, and convulsions followed.

These morbid appearances enable us to explain some of the formidable symptoms. The mucous membranes were greatly altered in colour and consistence; hence the intense pain extending down the intestinal canal.

The poison of yellow fever has some peculiar affinity for the digestive mucous membranes.

In the four remaining cases of post-mortem examinations after death from yellow fever, I have invariably found marks of inflammation of the mucous membrane of the stomach extending to the duodenum and small, and sometimes great, intestines. The spleen was always enlarged and softened. Peyer's glands were never affected. The liver was altered in size and consistency. In one case it appeared to me smaller than natural, as if choked and compressed. The colour varied from a dirty to an intense orange-yellow. Intussusceptions were frequent.

The essential anatomical character of yellow fever is not any alteration of the liver, but the affection of the stomach and digestive apparatus.

A previous attack of the disease produces a comparative immunity from a fresh one; still I would not rely too much upon such an immunity, as I have known two fatal exceptions to the rule.

A few words respecting treatment. In a desperate case like that of the young German, little more could be done than smooth the path of death. I gave one-scruple doses of calomel, with one grain of opium, every quarter of an hour, to be immediately washed down by mist. effervescens, to which thirty drops of chloric ether had been added, and I cupped over the spine; but, when called in to a more hopeful case of yellow fever, I preferred administering a drop or two of croton oil in preference to any other purgative, which is essentially necessary, as costiveness always prevails at first. I would even repeat the dose of croton oil in gum or barley water if necessary. Croton oil appears to possess a soothing property and a sedative effect upon the irritable mucous membrane of the stomach. I have never given an emetic unless in the premonitory stage of the disease, fearful of exciting the coats of the stomach, which always suffer most in this disease, and towards which the malarious poison is most especially directed. I have always preferred

the saline treatment so strongly recommended by Stevens to any other, mercurial or otherwise. He proposed by this plan to introduce into the blood those saline ingredients which he maintains are always deficient in the blood in yellow fever. I have given the bicarbonate of soda and potash with the hydrochlorate of soda—at times in excess, in a state of effervescence; at others with camphor mixture, to which large doses of chloroform had been added—tepid affusions, and cupping over the spine to allay pains in the head and irritability of stomach. This has been the practice which I have preferred to all others. Ice along the spine has been used with good effect; but as ice is sometimes difficult to obtain, I have always employed cupping in some form, according to circumstances. I believe that the malaria acts first upon the nervous centres, through those upon the vascular and capillary systems. Hence I have found cupping or ice along the spine often allay the nausea and great irritability of the stomach. As the type and severity of the same disease often varies even in the same locality, so must the treatment; but were I compelled to choose between the saline and mercurial, I would decidedly give the preference to the saline treatment.

I have introduced into the treatment of yellow fever the sulphites of soda and magnesia, according to the recommendation of Dr. de Ricci, of Dublin, and have found them invaluable, but cannot help thinking that their good effect is rather the consequence of their adding saline ingredients to the blood than of their arresting zymotic action. The Americans have introduced the sulphites of soda and magnesia in the treatment of small-pox in the island of Cuba, and, I am told, with extraordinary success.

Is yellow fever contagious? The non-contagionists go so far as to assert that the laws of quarantine are unnecessary. Now, where the safety of human life is at stake, we must not be led away by theories, however apparently based upon science, and however cleverly expressed. Let us be guided in our consideration of so serious a question by facts, and facts alone. Providentially our climate is not favourable for the production of yellow fever, but it does not follow that it is not favourable for its reception from abroad and for its reproduction.

What are the facts with regard to the visitation of yellow fever in those countries where it may be considered as indigenous? In the United States, all vessels arriving from an infected port are subjected to a strict quarantine. No doubt the injury to commerce must be very great, but must the safety of the many be sacrificed to the interests of the few? I believe our friends the Yankees to be as reckless and as little tender of the feelings of their neighbours as any people on the face of the earth. Nevertheless, they strictly enforce the laws of quarantine, well aware that by such means alone can the spread of the contagion to the shore be prevented. I regret that an opinion seems to prevail, which has to a certain extent infected our rulers, that quarantine is insufficient to prevent the introduction of cholera, zymotic diseases, and yellow fever, and that consequently commerce ought not to be subjected to a useless inconvenience; but between the possibility of warding off cholera and yellow fever by means of strict quarantine laws there is a vast difference. Cholera attacks all parts of a country indiscriminately; the terrified inhabitants fly to other countries, and cannot easily be prevented from emigrating and carrying with them the seeds of disease—although atmospheric influence, independent of direct contact, may have much to do in the propagation of cholera.

But yellow fever originates in harbours and mouths of large rivers, under a burning sun, attacking principally the shipping, or such as are in communication with the shipping. It never originates independently in the interior of a country, and thus we have the power of excluding yellow fever from our shores by isolating the infected port, and this can only be done by the enforcement of the strict laws of quarantine.

Several cases of yellow fever have lately been conveyed from St. Thomas in one of our West India mail steamers, some of which proved fatal during the voyage. For my own part, I believe that had not a strict quarantine been enforced under the active and intelligent supervision of Dr. Wiblin, the port of Southampton might have been infected in hot weather.

The fact that yellow fever developes itself in a malarious district under conditions which do not exist in temperate climates, which, when undergoing any improvement in its symptoms, assumes the remittent, and ultimately the intermittent, type (a periodic fever which is never contagious), when it must be treated as such by the administration of quinine, has impressed many with an idea that yellow fever ought not to be classed in the list of contagious diseases. To this I would answer that an intensely concentrated and vitiated malarious poison has produced a continued, not a periodic, fever, and that, so soon as an improvement leading to an intermittent type has shown itself, yellow fever loses its contagious character.

I will now bid our friend farewell, and hope that my hints may prove useful to him in his practice in the Spanish West Indies. I am, &c. JOHN SULLIVAN, M.R.C.P.

14, Upper Montague-street, Hyde-park.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 1, 1868.

Dr. HALL DAVIS, President, in the Chair.

THE following gentlemen were elected Fellows:—Mr. Evan Llewellyn; Dr. Hope Robson; and Mr. Charles Case Smith.

Dr. PHILLIPS exhibited a specimen of retro-uterine hæmatocele.

Dr. GREENHALGH exhibited a specimen of hypertrophied nympha removed by the écraseur.

Dr. PLAYFAIR related the particulars of a case in which a woman suffering from carcinoma uteri, attended with much induration and rigidity of the cervix, had aborted of a dead fœtus at the fifth month. The fœtus, which had been extruded piecemeal, was exhibited.

The PRESIDENT exhibited the membranes of a twin ovum of a supposed ten weeks' gestation, which he had removed from a patient the subject of exhausting hæmorrhage. The fœtuses had been expelled eight days before, but their envelopes were retained, and were adherent to the anterior and posterior walls of the uterus respectively. They were extracted entire by the ovum forceps, and the hæmorrhage had not recurred.

Dr. PROTHEROE SMITH exhibited an instrument which he had devised to facilitate the extraction of hair-pins from the female bladder, and which, in a recent case, he had used with complete success.

Dr. COPEMAN (of Norwich) read a paper

ON SOME OF THE DIFFICULTIES ENCOUNTERED IN DETERMINING THE EXISTENCE OF PREGNANCY.

Five cases were given in detail, in all of which considerable difficulty had been at first felt in deciding on the question of pregnancy, owing to the presence of some one or more abnormal conditions, but in all of which the author had been enabled to form a correct diagnosis mainly by detecting the "placental souffle" by auscultation. This sound, Dr. Copeman said, had never deceived him, and he expressed his surprise that, in a recent work, Dr. Hewitt had stated that no dependance whatever was to be placed upon it as a sign of pregnancy. He, on the contrary, believed it to be one of the most valuable signs of pregnancy, second only to that of the fœtal heart, and the most dependable of all signs when the child was dead.

Dr. GRAILY HEWITT thought the uterine souffle one of the signs of pregnancy which were not absolutely "reliable," and in this sense he had deprecated attention to it. In some of the cases now related, other observers had failed to hear it when it was evident to Dr. Copeman's more practised ear. He still believed it to be capable of simulation by other sounds, and, in that sense of the word, "non-reliable."

A paper, by Dr. GRAILY HEWITT, was read

ON PUERPERAL FEVER IN THE BRITISH LYING-IN HOSPITAL, WITH REMARKS ON THE TREATMENT OF PUERPERAL FEVER.

In this paper the author detailed his experience of puerperal fever in the British Lying-in Hospital, and laid before the Society certain views respecting the treatment of the disease there and elsewhere. The mortality in the Hospital from all causes was in the first place attended to. The statistics adduced extended from 1849 to 1866 inclusive. Married women only are admitted. The Hospital now in existence was first used for patients in 1849. Of the four principal wards, two had a cubic capacity of 6552 feet each; the two others of 5616 feet each. These wards were tolerably isolated; ventilation by fireplaces and open windows. During the time the author held office there, the practice was to allot four patients, unless under extra pressure, to each ward. The in-patients were attended alternately by Dr. Murray and the author for periods of three months. During the seventeen years 1849-

1866, the total deliveries were 2438; the total maternal deaths 25. The percentage of deaths was, therefore, 1·02 from all causes. The causes of death were set down as follows:—Puerperal fever, or disease closely allied to it, 16; hæmorrhage, instrumental labours, chest affections complicating labour, and other diseases, 9. Of late years (1863-1866) the number of deliveries had much increased, being nearly double those of previous years. In one year (1864) there were 199 deliveries without one death; in 1865 there were 5 deaths and 232 deliveries. On taking charge of the Hospital in 1862, the author, in conjunction with Dr. Murray, reduced the number of patients in each ward from six to four. In the next place the author adduced particulars of all the cases of puerperal disease in which there appeared to him reason for designating the case as puerperal fever or closely allied to it, during a period of nine months, including three periods of three months each. Some of these were slight attacks, some more severe. Particular attention was directed to three patients in the same ward, attacked on December 28, 1864, with almost identical symptoms, one one day, and two two days after labour. A fourth in the same ward had severe sweatings. In three of these cases the attack gave way rapidly to treatment; the fourth was dangerously ill for many days, but ultimately recovered. In all, there were during these nine months twenty-three cases in which, in the author's opinion, the illness, often, it is true, temporary, could only be regarded as of the nature of puerperal fever. The identity of the symptoms in the slight and in the grave cases was the basis of this conclusion. For the most part, as initial symptoms, were noticed pain and tenderness in the uterine region, quick pulse, prostration of vital power, in almost all cases rigor generally well marked; subsequently, if the attack did not give way, abdominal swelling, great prostration, hurried respiration, threatening of death. Herpes labialis occurred in several cases. One only of the twenty-three cases died; this patient was admitted, previous to setting in of labour, for great prostration from chest disease; she died of exhaustion two days after labour, the contents of the uterus being in a putrescent state. As to the nature of puerperal fever, the opinion was expressed that it is a form of pyæmia, the result of the introduction of a poisonous material of animal origin into the circulation, the point of entrance being generally the inner surface of the uterus or the vaginal surface. The poison may be introduced from without, or be the result of changes occurring within the uterus itself. Enlargement of the uterus had been noticed in many cases of the disease. On the question of the treatment of the disease, Dr. Graily Hewitt stated that the plan pursued by him was to enforce great cleanliness, and to give a liberal diet from the first in all cases, as preventive measures; and when labour was at all protracted, brandy was given during, as well as after, the labour; beef-tea, eggs, and milk at once, meat on the second day. When any symptom appeared of a suspicious character, the case was at once treated as one of puerperal fever, as follows:—The binder directed to be closely and accurately applied to prevent collection of lochia in uterus and facilitate its contraction; hot turpentine stupes to the abdomen, also to relieve the pain, for which purpose the tight binder also gave most universally good results; every four hours, thirty minims each of tincture of lavender, chloric ether, aromatic spirit of ammonia, and compound tincture of camphor; brandy, with water or egg, at once, in varying quantities—in a mild case, six to eight ounces per diem, but as much as two ounces every two hours was given when initial symptoms were very severe. Nourishment, in good quantities, very frequently, chiefly liquid; milk and eggs and beef-tea most relied on. Every half-hour something was given in the worst cases; aperient medicines religiously avoided unless the rectum was obviously loaded. Experience had convinced the author of the bad effects of "brisk purgatives" in such cases. Later on, the same treatment was, if necessary, continued, with the addition of twenty to thirty minim doses of tincture of iron in some cases, and in some cases of turpentine enemas. Promptly and thus treated, the disease had almost invariably given way. Since the year 1862, the author had treated the disease boldly and thoroughly on the stimulant plan, having first observed its extraordinary effect in a woman who, being extremely ill, took every day for over a week at the rate of a bottle of brandy, besides nourishment in good quantities, and recovered. Some also of the cases now related were very bad ones. If the disease be allowed to go on unchecked for two or three days, this stimulant plan may fail, the important point being to treat the affection promptly. Intra-uterine antiseptic injections the author thought highly of, but they were not employed in these cases. Lastly, the conclusion drawn as to the question of the propriety of Lying-in Hospitals was, that they can only be safe when patients are isolated absolutely from each other—where, in fact, the conditions approximate to those present in home attendance.

Dr. Snow Beck remarked that the cases read were unsatisfactory, none presenting the diagnostic signs of puerperal fever. Again, cases from which deductions were drawn should be recorded with sufficient detail to enable any one to say whether they were trustworthy or not. In the present instance this had not been done. Dr. Beck had been mentioned as having shown to the Society cases of enlarged or relaxed uterus as connected with this disease, but this was not so. What he had done was to show that the sinuses were pervious throughout to fluids gently injected into the pelvic veins, and even this had been shown many years ago by Dance. The pervious state of the sinuses was important, as it was of little use the open orifices being bathed with sanious fluids if the sinuses were not open to allow the fluid to enter the general system. There were no facts, so far as he was aware, to show that deleterious infection took place from the surface of the vagina or the general surface of the uterine cavity. In all cases where he had seen the plan of treatment by excessive stimulation adopted, it had been decidedly injurious, and the most successful had included the administration of those substances which counteracted the effects of the injurious impregnation, the sulphites, etc., and washing out the interior of the uterus.

Mr. Squire remarked that not only in puerperal fever, but in its allied diseases, hospital gangrene and erysipelas, and in diseases where a septic influence was traceable, the sustaining system of treatment, with stimulants throughout, and the use of such remedies as iron and quinine, was the right one. This was illustrated in the cases adduced, all of which resulted in recovery; that they were cases of this kind, if their history and the details given by Dr. Hewitt were not enough, his own judgment and experience sufficed to distinguish them from the ordinary accidents of the puerperal state.

Dr. Playfair could only say that he fully concurred in the view which attributed the mortality which had taken place in the Nightingale wards (to which reference had been made) to the poisoned air of a general Hospital. The facts that the outbreaks of puerperal fever coincided with the presence of erysipelas in the Surgical wards, and that the women who died had no symptoms of erysipelas as such, while one of the children in the ward suffering from an abrasion of the skin had well-marked erysipelas, seemed sufficiently to controvert Dr. Beck's theory as to the diseases having no connexion with each other.

Dr. Braxton Hicks said it was not more difficult to understand that if the system be poisoned by matter engendered within, the same matter introduced from without could also produce the same symptoms. If puerperal fever were to be so limited, then it was highly important that researches should be made as to the connexion of the various diseases classed as puerperal fever. He had seen abundant personal evidence, at least as strong as any admitted valid in Medicine, to show the connexion of these diseases.

The President, having so recently expressed his views on the subject of puerperal fever, would now only very briefly reiterate his conclusions. There should be no doubt whatever that it was a highly contagious disorder; that it was communicable to a puerperal patient, not only through its own contagious emanations, but through those from scarlet fever, measles, typhus, erysipelas. The identity of the disease with erysipelas in some epidemics had been proved by the late Dr. Rigby, as well as by others. Dr. Rigby observed in one epidemic that the infant of every patient who had died of puerperal fever perished from erysipelas. Various sources of putrid emanations—viz. the putrid lochia especially of women congregated in Hospitals, gases from open sewers, putrid matters from dissections and from Hospital sores—had been rife causes of the disease. The paper, while showing that some little good might be done by an early and judiciously energetic supporting treatment in some cases of fever, at the same time furnished additional evidence of the dangers to puerperal women in lying-in Hospitals.

Dr. Graily Hewitt, in reply, would simply state that the greater part of Dr. Beck's observations on the paper appeared to be founded on a misapprehension of the facts and statements therein. The facts, however, were before the Society, and it was for them to draw conclusions as to their import and value.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—At the late Medical graduation term, the following candidates, after the usual examinations, received Degrees in Medicine and Surgery :—

THE DEGREE OF M.D.

Dowse, Thomas Stretch, L.R.C.P.Ed., M.R.C.S. Eng., London.
Fisher, Stephen Winter, M.R.C.S. Eng., L.S.A., L.M., Bristol.
Lyle, [illegible], L.R.C.P. Lond., Exeter.
Quinnell, Richard James, East Indies.

At the same time, the following gentlemen received promotion to the Degree of M.D. :—

[illegible], Henry Child, M.B., C.M., Hamilton, Carmarthenshire.
[illegible], George Henry Kopke, M.B., C.M., Newport, Isle of Wight.
Davson, Frederick Adams, M.B., C.M., British Guiana.
[illegible], Alexander Augustin, M.B., C.M., Jersey.
[illegible], John Strachan, M.B., C.M., Aberdeen.
Will, John Charles Ogilvie, M.B., C.M., Aberdeen.

THE DEGREE OF M.B.

Adam, Charles, M.A., Dunbar.
Crombie, John Mann, M.A., Aberdeen.
[illegible], John Sutherland, Sutherlandshire.
[illegible], Frederick Knowlton, M.R.C.S. Eng., London.
Hope, William, M.R.C.S. Eng., and L.S.A., London.
Ironside, James, Aberdeen.
King, Henry Kirwan, M.R.C.S. Eng., and L.S.A., London.
Matheson, Farquhar, Rosshire.
Muil, William, Aberdeen.
Philip, James Allan, M.A., Aberdeen.
Philpots, Edward Payne, Leamington.
Robb, John, Aberdeen.
Simpson, George Alex., Aberdeen.
Smith, Francis Wm., Banff.
Smith, Joseph Hume, M.A., Methlic.
Tulloch, David, Sutherland.
Walker, Wm. Abraham, M.R.C.S. Eng., Chesterfield.
Williams, Albert, London.
Willock, Richmond Cotts, Aberdeen.
Wood, Alexander, Banff.

THE DEGREE OF C.M.

Adam, Charles.
Crombie, John Mann, M.A.
Gunn, John S.
Ironside, James.
King, Henry Kirwan.
Matheson, Farquhar.
Muil, William
Philip, James Allan
Philpots, Ed. Payne.
Quinnell, Richard James.
Robb, John
Simpson, George Alex.
Smith, Francis Wm.
Smith, Joseph Hume.
Tulloch, David.
Walker, Wm. Abraham.
Williams, Albert.
[illegible], Richard C.
Wood, Alexander.

Of the above-mentioned candidates, Charles Adam, James Allan Philip, John Robb, and George Alex. Simpson received their Degrees in Medicine and Surgery with highest academical honours. At the same time Robert Macpherson was certified as having passed all the examinations, and is entitled to receive Degrees on his attaining the necessary age; and the following were declared to have passed part of their examinations :—

Alexander, Robert Reid.
Anderson, Alex. Thos.
Ash, Robert Vesey.
Barrett, Samuel.
Batten, John.
Bennett, Charles.
Bernard, Francis R.
Brown, Charles Robert.
Brown, Richard G.
Brotchie, Theodore R.
Coleman, Matthew Owen.
Craig, George Alex.
Cruickshank, Brodie.
[illegible], Chas. D. H.
Duff, George Skene.
Ellis, Henry Vaux.
Grant, Henry.
Gray, John Henry.
Gordon, John.
[illegible], J.
Hay, Peter Grant.
Hutchison, Geo. Wright.
Johnston, David.
Lawrence, Alex.
Mair, Edward.
Manson, David.
Mathieson, John.
Newth, Alfred H.
Nicol, Peter.
Ostlere, Robert.
Pickburn, Thomas James.
Robertson, George.
Scott, David.
Shand, Stephen.
Smith, Patrick B.
Strahan, Alex. B.
Thomas, John Alex.
Thomas, Edward.
Walker, Alfred.
Walker, Alexander.
Watson, Fred. H.
Wilson, Alex.
Wolstenholme, William.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—Since January last, the following gentlemen have passed the First Examination of the Faculty :—

Bebbington, Thomas, Liverpool.
Blackton, Thomas, Galway.
[illegible], Joseph, Glasgow.
Jones, John Edward, Glasgow.
Lauder, Alfred G., Glasgow.
Lee, Barnard J., London.
Moore, Patrick, Glasgow.
[illegible], Hugh, Glasgow.
[illegible], Thomas, Glasgow.
[illegible], Edward W., Bedfordshire.
Watson, James F., Glasgow.
Wilson, James W., Glasgow.

During the same period the following gentlemen have passed the final Examination of the Faculty :—

Blackton, Thomas W., Galway.
Bryson, Theobald, Glasgow.
Burke, Patrick H., Dublin.
Crowe, Clifford, London.
McLean, George, Glasgow.
Moore, S. J., Glasgow.
O'Doherty, Charles, Glasgow.
Ryan, Albert, Dublin.
Smith, A. W., Glasgow.
Watson, Albert J., Dublin.

The following gentlemen have passed the First Examination for the Double Qualification granted conjointly by the Faculty and the Royal College of Physicians of Edinburgh :—

Cuthbertson, John M., Glasgow.
Davies, Robert, Glasgow.
Leckie, John, Glasgow.
Owen, Robert M., Glasgow.
Powell, Evan, Glasgow.
Reid, John L., Glasgow.
Roberts William L., Glasgow.
Thomson, William C., Glasgow.

The following gentlemen have passed the final Examination for the Double Qualification :—

Arbuckle, Hugh W., Glasgow.
Anderson, George R., Glasgow.
Beasley, James G., Glasgow.
Jones, John, Glasgow.
Marsh, Silvester, Manchester.
Robertson, James, Glasgow.
Stephen, William, Glasgow.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on April 23 :—

Austin, S. C., Luton, Bedfordshire, of St. Mary's Hospital.
Cass, E. E., Goole, Yorkshire, of Guy's Hospital.
Chittenden, J. F., jun., Blackheath, of Guy's Hospital.
Cortis, W. R., L.S.A., Kennington-park-road, of Guy's Hospital.
Cox, Edgar, Maiden Newton, Dorset, of St. Thomas's Hospital.
Faraker, W. C., L.S.A., Rotherhithe, of Guy's Hospital.
Greenwood, Frederick, Haworth, Yorkshire, of the Leeds School.
Hackney, A. H., Richmond, Surrey, of University College.
Harris, William, Redruth, Cornwall, of St. Thomas's Hospital.
Hickman, T. H., Beccles, Suffolk, of St. Bartholomew's Hospital.
Hugo, E. H., Exeter, of the Charing-cross Hospital.
Langdon, G. C., L.S.A., St. Paul's Cray, of St. Bartholomew's Hospital.
Lee, T. W., L.S.A., Thame, Oxon, of St. Bartholomew's Hospital.
Longrigg, Dean, Appleby, Westmoreland, of University College.
Milligan, William, Buxton, of University College.
Morton, J. H., Chatham, of Guy's Hospital.
Naish, F. J., L.R.C.P. Lond. and L.S.A., East India-road, of Guy's Hospital.
Parkinson, J. T., Newcastle-on-Tyne, of the Newcastle School.
Pritchard, H. J., Clevedon, Somerset, of St. George's Hospital.
Wilson, R. L., L.S.A., Loddington, Leicestershire, of Guy's Hospital.
Wood, Charles, Welbeck-street, of University College.
Wood, T. O., East Rainton, Durham, of the Newcastle and St. Bartholomew's Hospitals.

It appears that out of the 74 candidates who underwent their examinations for the Diploma of Membership last week, only seven of that number failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their Hospital studies for six months.

For the Anatomical and Physiological Examination, which terminated on Thursday, there were 101 candidates.

The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on April 28, and, when eligible, will be admitted to the Pass Examination :—

Adcock, Hugh, of Guy's Hospital.
Allen, H. E., of Guy's Hospital.
Allen, M. S., of the Birmingham School.
Argles, Robert, of King's College.
Bower, A. E., of the Edinburgh and King's College Hospitals.
Boyer, J. J. W. R., of the Toronto and St. Thomas's Hospitals.
Bramwell, Byrom, of the Edinburgh School.
Buchanan, Walter, of Guy's Hospital.
Button, H. G., of Guy's Hospital.
Clapham, W. C. S., of Guy's Hospital.
Fiske, J. F., of King's College.
Greenway, A. G., of the Birmingham School.
Harrison, N. A. R., of Guy's Hospital.
Hobbes, C. E., of the Birmingham School.
Hobley, S. H., of King's College.
Horsford, J. A., of University College.
Morgan, G. J., of the King's College and Birmingham Hospitals.
Parson, F. J., of St. Thomas's Hospital.
Payne, W. H., of the Bristol School.
Perigal, Arthur, of the Edinburgh School.
Pinder, J. W., of the Leeds School.
Rosten, W. M., of the Birmingham School.
Stuart, G. B., of the Edinburgh School.
Thomas, F. [illegible], of St. Thomas's Hospital.
Way, F. W., of Guy's Hospital.
Whitcombe, E. B., of the Birmingham School.

The following passed on April 29 :—

Applin, G. P., of Guy's Hospital.
[illegible], E. C., of the Middlesex Hospital.
Bovill, Edward, of Guy's Hospital.
Broom, H. J., of the University College.
Clarke, J. H., of the Sheffield School.
Clarke, J. T. of the Newcastle School.
Cobb, A. H., of Guy's Hospital.
Cooper, H. V., of Guy's Hospital.
Cowell, F. [illegible], of the Leeds Hospital.
Dobell, S. [illegible], of St. Mary's Hospital.
Eades, E. A., of the Leeds School.
Fayer, John, of the Manchester School.
Hanson, A. [illegible], of the Manchester School.
Harrison, Richard, of St. George's Hospital.
Jones, T. [illegible], of St. Mary's Hospital.
Lowe, John [illegible], of the University College.
Lyon, E. C., of the Middlesex Hospital.
Norton, J. A., of the Bristol School.
Palmer, H. D., of Guy's Hospital.
Poulson, William, of Guy's Hospital.
Pilkington, H. O., of the Manchester School.

Pugbe, J. E. H., of the Liverpool School.
Reynolds, John, of Guy's Hospital.
Shirley, Matthew, of the Sheffield School.
Steddall, T. W., of the Liverpool School.
Temple, F. C., of the Middlesex Hospital.
Tomes, C. S., of the Middlesex Hospital.
Urquhart, John, of the Newcastle School.
Vickers, William, of the University College.
Walsh, P. C., of the Dublin School.
Williams, Morgan, of the Manchester School.

APOTHECARIES' HALL. — The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise:—

On Wednesday, April 22:—

Gameys, William, Repton, Derbyshire.

On Thursday, April 23:—

Brown, James, Dudley Port.
Jones, John, Carmarthen.
Lee, Thomas Lowndes, Swaffham.
Monce, Richard Lamb, St. Bartholomew's Hospital.
Robertson, Dalrymple Kinlock, St. Bartholomew's Hospital.
Shepherd, Robert John, Plymouth.
Wilson, Allan, Castle Eden, Durham.

The following gentleman also, on the same day, passed his First Examination:—

Rigden, Walter, University College Hospital.

At the Preliminary Examination in Arts, held at the Hall on April 24 and 25, sixty-seven candidates presented themselves, of whom twenty were rejected, and the following forty-seven passed, and received certificates of proficiency in general education, viz.:—

Allen, James.
Booth, P. L.
Brodribb, Charles Aikin.
Claxton, Alfred J.
Cole, William John.
Collins, H. Beale.
Culling, William R.
Dawson, Edward.
Deakin, R. H.
Dickinson, W. W.
Dixon, John F.
Donaldson, H.
Eskell, M.
Groves, Matthias.
Hacon, W. E., special certificate.
Hale, C. D. B.
Hartley, Robert.
Henderson, G.
Hogg, E. H. J.
Howell, Bruce H.
Hughes, Richard D.
James, John James.
Jones, Vaughan D. W.
Manser, R.
Mason, A. H.
Measures, J. W.
Morris, A.
Morris, J. H.
Parker, E. J.
Pilkinton, W. B.
Reid, Matthew.
Robinson, R. E.
Sargent, John.
Shufflebotham, M. M.
Slaughter, J. E.
Spark, S. W.
Strang, W. D.
Thorne, I. J.
Toye, E. J.
Wallis, A. P.
Wallis, William.
Welch, Samuel.
Wolehman, E.
Williams, Benjamin.
Wilson, Edward.
Wood, Guy.
Young, G. W.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BULLEY, F. A., M.R.C.S.E.—Consulting Surgeon to the Royal Berkshire Hospital, Reading.

CASS, H., M.R.C.S.E.—Honorary Medical Officer to the Royal Pimlico Dispensary.

COLES, GEORGE CHARLES.—Surgeon to the Islington Dispensary, vice Alex. Bruce, Esq., resigned.

GARRETT, Dr.—House Physician to St. Bartholomew's Hospital.

GREGSON, G., M.R.C.S.E., L.D.S.—Dental Surgeon to the Dental Hospital of London.

MAURICE, O. C., M.R.C.S.E.—Surgeon to the Royal Berkshire Hospital, Reading.

MEDHURST, C. H. C. M., M.D. Edin.—Medical Superintendent of the Somerset County Asylum.

ORTON, G. H., M.B.—Junior House-Surgeon to the Royal Infirmary, Liverpool.

TIBBITS, R. W., M.B., M.R.C.S.E.—Surgeon to the Royal Infirmary, Bristol.

WALLACE, J., M.D.—Surgeon to the Greenock Hospital and Infirmary.

NAVAL AND MILITARY APPOINTMENTS.

FAGAN, M. J. E., M.D., Assistant-Surgeon 46th Regiment, has been permitted to resign his commission.

FFENNELL, J. R., Staff Surgeon-Major, has retired on half-pay.

ROBOTHAM, J. H., Assistant-Surgeon from 7th Dragoon Guards.—Staff Surgeon.

BIRTHS.

ASBURY.—On April 25, at Broxbourne, Herts, the wife of C. J. Asbury, M.R.C.S., of a son.

FARMER.—On March 18, at Bangalore, Madras, the wife of W. L. Farmer, Assistant-Surgeon 16th Lancers, of a son.

FOLKER.—On April 25, the wife of W. H. Folker, F.R.C.S., of Hanley, of a son.

SMITH.—On April 26, at Cobham, Surrey, the wife of Rowland Smith, Esq., Surgeon, of a son.

MARRIAGES.

CARSON—STEVENSON.—On April 23, at the Second Presbyterian Church, Belfast, by the Rev. Joseph Corkey, LL.B., Alexander Tertius Carson, Esq., M.D., eldest son of James C. L. Carson, Esq., M.D., Coleraine, to Jane, second daughter of Robert Stevenson, Esq., J.P., Ardkill, Londonderry.

CULLEN—JOHNSTONE.—On April 21, at Manse of Arnoath, by the Rev. Thomas Johnstone, David Cullen, M.D., Staff Surgeon with 11th Depôt Battalion, Gosport, to Janet Wilson, second daughter of the Rev. Thomas Johnstone, minister of Arnoath, Kirkcudbrightshire.

GAINE—SMITH.—On April 23, at Walcot Church, Bath, C. Gaine, M.R.C.S., of Bath, to Adele Bridges, youngest daughter of the late H. Bridges-Smith, Esq., J.P., of Upland-house, Bathwick.

HILL—CRAWSHAY.—On April 21, at Hailsham, Sussex, J. Hill, M.R.C.S., of Eastbourne, to Isabel, third daughter of J. M. Cunningham, M.D., of Hailsham. No cards.

LONGHURST—LASTER.—On April 23, at St James's Church, Dover, A. E. T. Longhurst, M.D., Staff Surgeon, to Sophia Harriet, eldest daughter of Major F. L. Laster, 54th Regiment. No cards.

DEATHS.

CLAY, W. H., M.D., at Kingston-on-Thames, on April 24, aged 60.

KING, W. S., M.D., of Morley, Leeds, on April 14, aged 44.

SANKEY, F. H., M.R.C.S., L.S.A., of Wingham, Kent, on April 22, in his 68th year.

SPOFFORTH, W. F., M.R.C.S.E., of Lichfield, on April 15.

WEBBER, H. J., M.R.C.S., at Taranaki, New Zealand, on February 5, aged 26.

VACANCIES.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser.

SOUTH SHIELDS DISPENSARY.—House Surgeon.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

WEST HAM UNION.—The West Ham District is vacant; area 2717; population [illegible].

HOLBORN UNION.—Mr. Stephen J. Bart has resigned the Workhouse; salary £110 per annum. Drugs provided.

APPOINTMENTS.

Barton-upon-Irwell Union.—Charles J. Farr, M.R.C.S.E., L.S.A., to the Swinton District; William Y. Martin, M.R.C.S.E., to the Walkden District.

Frome Union.—William S. J. H. Munro, M.R.C.S.E., M.D. Aber., to the Kilmersdon District.

Melksham Union.—George C. Taylor, M.B. Lond., M.R.C.S.E., L.S.A., to the Second District.

Wrexham Union.—Thomas R. Mitchell, M.D., M.R.C.S.E., to the Gresford District.

UNIVERSITY INTELLIGENCE. — OXFORD: MERTON COLLEGE, APRIL 22.—The following gentlemen have been elected after an open competitive examination to natural science foundations—viz., Postmastership (scholarship), value £80 per annum, tenable for five years, Mr. W. W. Fisher, Worcester College, Oxford. Jackson Scholarship, value £60 per annum, tenable for five years, Mr. C. Childs, Corpus Christi, Oxford. Exhibitions, value £25 per annum, tenable for three years, Mr. J. P. Earwater, Pembroke College, Cambridge; Mr. Macdonald, St. Mary Hall, Oxford. There were fifteen candidates.

UNIVERSITY OF CAMBRIDGE.—The Natural Sciences Scholarship at Trinity College has been won by J. Pryor, of Trinity College, after competition with fifteen candidates from the various colleges of Oxford and Cambridge.

COLLEGIATE ELECTION.—At a special meeting of the Council of the Royal College of Surgeons of England, held on Monday last, Mr. John Adams, Senior Surgeon to the London Hospital, and Lecturer on Anatomy in the Medical School attached to that institution, was elected a member of the Court of Examiners in the vacancy occasioned by the retirement in the prescribed order of Mr. Thomas Wormald, late President of the College, who declined being put in nomination. Mr. Adams took part in the primary examinations which have been going on during the present week.

COLLEGIATE EXAMINATIONS.—During the present week 101 candidates have been going through their Primary, or Anatomical and Physiological, Examinations at the College of Surgeons. A deputation from the Court of Examiners of the Society of Apothecaries, consisting of Dr. Norton, Chairman of the Court, Deputy Inspector-General Bradford, Honorary Surgeon to the Queen, Dr. Semple, and Dr. Webb, attended by invitation from the President of the College, by whom the mode of conducting the examinations was explained. Perhaps the following paper, submitted to the candidates on Saturday, will be read with some interest by those gentlemen who intend to offer themselves:—1. State in order the various organs or structures in contact with the liver, and the means by which it is retained in its position. 2. State the origin and insertion of

the sterno-cleido-mastoid muscle: and name the principal muscles, blood-vessels, and nerves which it covers. 3. State the boundaries of the posterior mediastinum in the chest; mention the structures contained in it, and their relative position. 4. Name in order, from above downwards, the parts of the brain which must be removed to show the third ventricle; and state the boundaries of that ventricle. 5. Describe the nerves of the tongue after their exit from the skull—the course, the distribution, and the function of each. 6. Describe the structure of a lobule of a lung; and explain the changes produced by respiration in the blood and the air respectively.

Death of Professor Jarjavy.—The Paris Faculty of Medicine has sustained a severe loss by the death of Professor Jarjavy, who, after having taught Anatomy in the Faculty during several years, was promoted at the commencement of the present year to the Chair of Clinical Surgery which M. Nélaton's retirement had left vacant.

Sanitary Matters at Liverpool.—A case of considerable importance in its legal and sanitary aspects has lately been decided in the Court of Queen's Bench, on appeal from the Magistrates' Court of Liverpool. By the Liverpool Sanitary Amendment Acts of 1846 and 1854, the Medical Officer of Health is enjoined to report on the existence of sickness and mortality within the borough, and also to suggest means for the abatement of the causes of such sickness; and it is further enacted, "Whenever it shall be certified by him that a privy or cesspool of a house is in its condition, state, or situation injurious to health, it shall be lawful for the Council to direct the mode or form of the required alteration of such cesspool." Dr. Trench, as Medical officer, certified in October, 1866, against certain privies attached to houses belonging to Mr. Rook, and the Council directed the alterations to be by trough waterclosets. Mr. Rook not having complied with the order of the Council, the matter was brought before the justices. Mr. Rook, by his attorney, maintained two points—1st, that the certificate of the Medical officer should not by itself be considered sufficient; 2nd, that if the privies were a nuisance, there were other modes of abating it besides the one ordered by the Council. The case was given against the defendant by the justices, who refused to receive any evidence in controversion of the Medical officer's certificates, or to admit any plea as against the direct and specific order of the Council. Mr. Rook appealed to the Court of Queen's Bench. The case was heard on Saturday, April 25, before Messrs. Justice Blackburn and Mellor, who upheld the conviction on the ground that the appellant had refused to comply with the injunctions of the authorities, which were under the provisions of the Liverpool Sanitary Act.

NEW INVENTIONS.

"DR. DEWAR'S NEW PREPARATIONS OF PRESERVED MEAT."

Our readers have doubtless not forgotten Dr. Dewar's advocacy of the use of sulphurous acid as a means of checking cattle plague and other zymotic diseases, nor his ingenious "spray producer" for the application of the acid to the fauces. Since the time of the cattle plague Dr. Dewar has been hard at work with another practical application of the acid. Guided by the views of Pasteur on fermentation and decomposition of animal and vegetable substances, he set about a series of experiments to see whether food could not be preserved by the sulphurous acid. The main desiderata in a preservative agent should be that it should not obtrude itself on the taste nor alter the qualities of the thing preserved. Salt, we need scarcely say, cannot help being tasted, and it robs the food of some important elements. Dr. Dewar's process consists, first, of exposure to sulphurous acid, to destroy all germs; then of drying. All that is required further is a process of cookery which shall soften and present the dried fish in an eatable and sapid condition. One merit of Dr. Dewar's system is the easy mode it offers of preserving meat and fish when and wherever they are plentiful, and of reducing them to a portable form. Many are the varieties of food which may come into general use for the poor, such as *fish meal*—that is, dried fish, powdered, so as to be used to flavour cheap soup, porridge, etc. Beef, mutton, game, and every kind of flesh and fowl, dried and powdered, may be supplied to exploring and military expeditions. Biscuits are made of wheaten meal and powdered beef for the use of soldiers on a rapid march; and even animals are not neglected, for Dr. Dewar has hit upon a mode of drying blood, which is then mixed with oatmeal and made into biscuits, on which horses and cattle are said to thrive immensely. Amongst preserves for sauces and finer culinary preparations we will only mention the preserved lobster spawn, which, when pounded up, has the colour and flavour of the fresh fish, and may be used to give that charming colour to the sauce which the English gourmand delights to eat with his turbot.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

S. Militia.—We think not.

J. T.—There is no special time for the publication of the result. It depends upon the number of essays sent in. Sometimes the award is not made known until August.

F R C S, Bristol.—It is generally understood that Mr. Simon will be one of the candidates. Mr Partridge will take the chair at the Fellows' festival.

A Guardian, Plymouth.—The pupil, having passed the preliminary at the Hall, can now enter on his professional studies. They will not, however, be recognised by the College unless notice be given. Write at once.

A Fellow, Liverpool.—Not having yet been *admitted* to the Fellowship, you will be unable to record your votes at the annual election in July next. We learn, however, that there will be two or more meetings of the Council before that time, at which you could attend. Write to the Secretary.

Mr. Taylor.—It is another blunder on the part of our contemporary. "The College officials" were duly prepared, and the summonses for the special meeting of the Council had been sent out at the usual period. The meeting could not have been at any other time, seeing that Mr. Wormald resigned his chair only on Thursday evening, and on the following Tuesday, the day after his election, Mr. Adams took part in the examinations.

Sir William Adams.

To the Editor of the Medical Times and Gazette.

Sir,—Your correspondent "G C B" wishes for some particulars respecting Sir Wm. Adams. At present I cannot find anything more respecting him.

"Rawson, Sir William, a celebrated oculist, whose family name was Adams, was a native of Cornwall, and was apprenticed to a Surgeon at Barnstaple, in Devonshire. He subsequently devoted his attention to the cure of the diseases of the eyes, and especially cataract; was appointed oculist to ophthalmic institutions at Bath and Exeter; and, removing to the metropolis, became a Member of the Royal College of Surgeons, and Oculist Extraordinary to the Prince Regent, etc. He received the honour of knighthood for his Professional skill, and took the name of Rawson in consequence of the will of a person from whom he received a considerable bequest of property. Died 1829."—(Maunder's "Biographical Treasury.")

I am, &c. H. L. Maysmor, M.D.

Cliftonville, Brighton, April 27.

Cure for Bothriocephalus Latus.

To the Editor of the Medical Times and Gazette.

Sir,—Your correspondent, having inquired for a cure for the above, had better try the following American recipe:—"One ounce of peeled pumpkin seeds, bruised thoroughly in a mortar and saturated with milk, to be eaten in the evening after fasting through the day; on the following day, at 7 a.m., swallow two drachms of sulphuric ether, and one hour later an ounce of castor oil." The parasite is usually expelled when the oil operates. I shall be glad to hear the result of this process should your correspondent try it.

I am, &c. H. R. M.

Ben Rhydding.

To the Editor of the Medical Times and Gazette.

Sir,—It is with no wish to bring myself before the members of my Profession that I send you this letter for publication, but simply to free my Medical practice from misrepresentations which I find have been made in regard to it, and that only within the last few weeks.

Twice within the last two months I learn that Medical Practitioners in two of our manufacturing towns have refused to meet me in practice, "because," to employ their own words, "I only use water in the treatment of disease, and that I refuse to employ any other remedial agent," and because "I assert that I only employ water whilst the cures which I may effect are produced by the employment of medicinal substances given privately." To those gentlemen in my Profession who know me—and I am proud to say that I can reckon amongst my friends some of the first Physicians both in England and Scotland—I have no need to say that it is my unceasing aim to exercise my Professional knowledge and to make my treatment of diseases more and more complete. But to those who do not know me, and who may be misled by assertions such as those which I have just given, I quote the following extract from the prospectus of Ben Rhydding, to which institution I may add I have been one of the Physicians during the last twenty-one years.

"The treatment followed by the Medical officers of Ben Rhydding combines hydro-therapeutics with hygiene and medicinal treatment. They employ hydro-therapeutics in functional diseases, in stopping the degeneration of tissues, in restoring nerve-power, in removing effete matters from the system, in developing vital force in weakened constitutions, and in retarding the too rapid advance of old age arising from the tear and wear of professional and commercial life. But when structures have become diseased, or morbid matters deposited in them, when the constitution has become chronically poisoned by constitutional or blood diseases, and when organic matters natural to the system are wanting, then with hydro-therapeutical they associate local, special, and general medicinal treatment."

This extract, I hold, frees me from every taint of sectarianism, and shows me to be strictly Professional in my practice. I am, &c

Ben Rhydding by Leeds April 25. W. MACLEOD

VOLUNTEER MEDICAL ASSOCIATION.

WE have received from Dr John Murray, Hon. Sec., of 49, Bryanston-street, Portman-square, the following list of gentlemen who have formed the Association, and paid the subscription of 5s., which was settled at the meeting of March 31 as the enrolment fee. Further subscriptions will be received by Dr Murray

A. Atkyns, Esq., Surgeon, London Rifle Brigade; M. Baines, Esq., M.D., Assistant-Surgeon, 1st Middlesex Engineers; H. T. Bate, Esq., M.D., Assistant-Surgeon, 19th Middlesex Rifle Volunteers; John Cordy Burrows, Esq., Surgeon 1st Brigade, 1st Sussex Artillery; W. Carr, Esq., M.D., Surgeon 1st Battalion Kent Rifle Volunteers; R. T. Daniell, Esq., M.D., Assistant-Surgeon 1st Surrey Artillery; Thomas Dickinson, Esq., Surgeon, 1st Middlesex Engineers; J. T. Griffith, Esq., M.D., Surgeon, 1st Surrey Rifle Volunteers; Ashton Godwin, Esq., Surgeon 2nd Middlesex Rifle Volunteers; R. D. Harling, Esq., M.D., Surgeon 1st Middlesex Artillery; Walter Hart, Esq., Assistant-Surgeon, 2nd Surrey Artillery; J. S. Loe, Esq., Assistant-Surgeon, 7th West York Rifle Volunteers; Robert G. Moger, Esq., Surgeon Second Battalion Middlesex Rifle Volunteers; John Murray, Esq, M.D., Assistant-Surgeon London Scottish Volunteers; Arthur T. Norton, Esq., Assistant-Surgeon Civil Service Volunteers; T. W. Nunn, Esq., Surgeon 9th Middlesex Volunteers; David R. Pearson, Esq., M.D., Assistant-Surgeon London Scottish Volunteers; W. Burke Ryan, Esq., M.D., Assistant-Surgeon South Middlesex Rifle Volunteers; H. Spencer Smith, Esq., Surgeon Civil Service Rifle Volunteers; G. M. Stansfeld, Esq., Assistant-Surgeon 1st Gloucester Rifle Volunteers; N. H. Stevens, Esq., Surgeon, St. George's Rifle Volunteers; J. B. Thomson, Esq., Staff-Surgeon, Cinque Ports Artillery; J. G. Westmacott, Esq., M.D., Surgeon London Scottish Volunteers; Martindale Ward, Esq., Surgeon South Middlesex Volunteers; Henry R. West, Esq, M.D., Surgeon, London Irish Volunteers.

COMMUNICATIONS have been received from—

Mr. R. ROGERSON; J. T.; Mr. A. R OLIVER; VERAX; Dr. MAYSMOR; Dr. T. R. FRASER; Mr JOHN WILSON; Dr. MUSPRATT; Dr A. BOUTON; Dr. DUDFIELD; S. MILITIA; Dr. JERVIS; Dr. JOHN MURRAY; Dr. KOUGH; Dr. D. J. BRAKENRIDGE; Dr BALMANNO SQUIRE; Mr. J. CHATTO; Dr. HUGHLINGS JACKSON; Dr. CHOLMELEY; Dr. YEO; Mr. J. HUTCHINSON; Dr. BARNES; Dr. SULLIVAN; Mr. CURGENVEN.

BOOKS RECEIVED—

Trousseau's Clinical Medicine, vol. i.—Pearce on Vaccination—Oppert on Visceral and Hereditary Syphilis—Bowditch on Consumption—Ophthalmic Hospital Reports, vol. vi. part 2—Seaton on Vaccination—Surrey County Lunatic Asylum Report—Obstetrical Transactions, vol. ix.—Godfrey on Vaccination—Hanover Square, No. 7—Aitken's Practice of Medicine, 2 vols.—Wood's Bible Animals, Part 5—London Student, No 2—Thorowgood on Consumption.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 25, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending April 25.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending April 25.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40 1	2307	1441	1378	63·8	41·7	50 2	1·47	148
Bristol (City)	167487	35 7	117	75	*75	..	..	..	..	..
Birmingham (Boro')	352296	47 0	255	171	127	59·4	41·6	49·3	1·34	135
Liverpool (Borough)	536756	98 0	349	290	233	58·0	38·5	46·6	1·11	112
Manchester (City)	366835	81 8	268	208	*180	60·4	40 0	49 2	0·73	74
Salford (Borough)	117162	22 7	93	59	67	59·3	36 5	48·2	0 78	79
Sheffield (Borough)	232362	10 2	210	122	109	60·0	39·0	48 7	1·05	106
Bradford (Borough)	108019	16 4	101	55	64	..	..	..	..	..
Leeds (Borough)	236746	11 0	212	120	103	60·0	30 5	47·2	1·26	126
Hull (Borough)	108269	30 4	71	50	36	63 0	37 0	48 1	0·60	61
Nwcstl-on-Tyne, do.	127701	23 9	102	68	62	57·0	40 0	46 2	0·97	98
Edinburgh (City)	177039	40 0	139	85	99	57·7	41·0	48·1	1·00	101
Glasgow (City)	449868	88 9	411	262	262	55·2	37·9	46·8	2·26	228
Dublin (City and some suburbs)	319965	32 8	123	157	180	63·4	35 5	49·6	1 21	122
Total of 14 large Towns	6391089	34 7	4758	3163	2975	63 8	30·5	48·2	1·15	116
					Week ending April 18.	Week ending April 18.				
Vienna (City)	560000	..	..	..	..	..	..	..	..	..
	(1863)									

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·425 in. The barometrical reading decreased from 29·63 in. at the beginning of the week to 28·75 in. by 9 a.m. on Monday, April 20; increased to 29·62 in. by 9 a.m. on Wednesday, 22nd; decreased to 29·48 in. by 9 p.m. on the same day; increased to 29·62 in. by 9 p.m. on Thursday, 23rd; decreased to 29·35 in. by 3 p.m. on Friday, 24th; and increased to 29·96 in. by the end of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 45·7°.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 25, 1868.

BIRTHS.

Births of Boys, 1200; Girls, 1107; Total, 2357.
Average of 10 corresponding weeks, 1858-67, 1971·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	714	664	1378
Average of the ten years 1858-67	695·0	692·7	1300·7
Average corrected to increased population..	..	..	1431
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	9	4	..	11	10	3	..
North ..	618,210	3	8	12	..	7	7	4	..
Central	378,058	..	2	..	1	9	7	..	..
East ..	571,158	4	13	4	1	11	5	1	..
South ..	773,175	6	19	7	2	19	17	4	..
Total ..	2,803,989	14	51	27	4	57	46	12	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·425 in.
Mean temperature	50·2
Highest point of thermometer	63·8
Lowest point of thermometer	41·7
Mean dew-point temperature	44·5
General direction of wind	Variable.
Whole amount of rain in the week	1·47

APPOINTMENTS FOR THE WEEK.

May 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Odling, "On Chemical Combination."

4. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. Gavin Milroy, "Sketch of the Geographical Distribution of Cholera in 1866-67." Adjourned Discussion on Mr. Radcliffe's "Report on Cholera, 1866-67."

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr Day, "On some Points connected with the present Aspect of Medicine." Mr. Haviland, "On the Effects of the Morbid Secretion of Milk, illustrated by a Case." Dr. Sedgwick, "On the Prevailing Epidemic of Sore-throat."

ODONTOLOGICAL SOCIETY, 8 p.m. Mr Harrison, "On a Case of Osseous Union of the Upper and Lower Maxillæ, with remarkable Displacement of the Teeth and Alveoli, and the Treatment resorted to for its Improvement; illustrated by Models and Diagrams."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

5. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 9 a.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."

6. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Dr. Madge, "On a Case of Ruptured Uterus." Dr. Playfair, "On the Absorption of Fibroid Tumours of the Uterus" And other Papers.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON (Special Meeting of Council, 7¼ p.m.), 8 p.m. Mr. Jakins, "On the Climate of Auckland for the Phthisical." Debate on "How far is Tubercular Phthisis to be looked on as a Zymotic Disease?"

ROYAL INSTITUTION, 3 p.m. Prof. Bain, "On Popular Errors."

8. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Papers on "Treatment of Syphilitic Albuminuria," "Antiseptics in the Treatment of Wounds," "Locomotor Ataxy."

ROYAL INSTITUTION, 8 p.m. Mr. C. G. Williams, "On Artificial Formation of Organic Bodies."

THE PERFECTION OF PREPARED COCOA.

MARAVILLA COCOA

SOLE PROPRIETORS, TAYLOR BROTHERS, LONDON.

The COCOA (or Cacao) of MARAVILLA is the true Theobroma of Linnæus. The Maravilla estate is the most favoured portion of South America.

TAYLOR BROTHERS, having secured the EXCLUSIVE SUPPLY of its UNRIVALLED PRODUCE, have, by the skilful application of their soluble principle and elaborate machinery, produced what is undeniably the PERFECTION of PREPARED COCOA, that it has not only secured the preference of Homœopaths and Cocoa drinkers generally, but many who had hitherto not found any preparation to suit them have, after one trial, adopted the Maravilla Cocoa as their constant beverage for Breakfast, Luncheon, &c.

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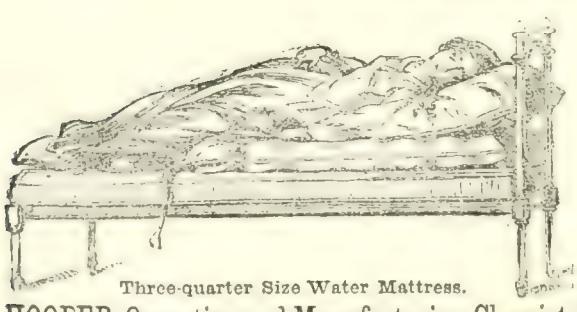

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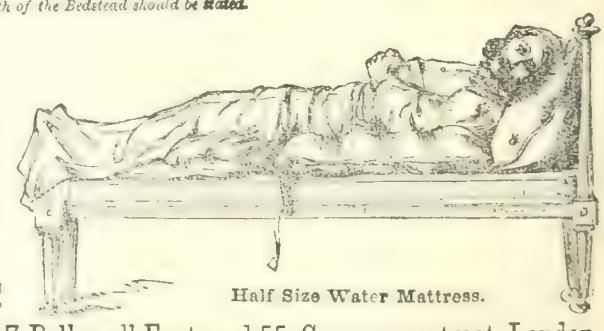

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ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,

Physician to, and Lecturer on the Practice of Medicine at, Guy Hospital.

(Continued from page 440.)

Having cursorily regarded the physiology of the nervous centres as far as can be elaborated from pathology, you will perceive that the symptoms of apoplexy will vary according to the seat of the disease and the amount of the effusion. The commonest form is that which I have mentioned where the effusion takes place into the central ganglia. If the blood be restricted to these parts, the symptoms proceed no further than the hemiplegic stage. Let the blood exceed these boundaries, a truly apoplectic state results, and death usually occurs within twenty-four hours. But you can see that if a large vessel give way in the first instance, the symptoms of the first stage, the primary shock and the hemiplegia, may soon pass, and the blood pouring out into the ventricles may so compress the vital parts that death will much more rapidly ensue, in a few hours. If blood be effused to a small amount in any other part, the symptoms depend upon the site. If in the pons, and interfering merely with the motor tract, it is not necessarily fatal; but if in larger quantity so as to compress neighbouring parts, then, of course, fatal symptoms rapidly ensue.

I need not detail any particular case to you, but if you take up a volume of our Inspection Books for any years, you will find plenty of cases in illustration, of which these are outlines.

Case.—A cook, aged 52, whilst employed at her occupation in a gentleman's house, was seized with apoplexy. A Medical man, who was speedily in attendance, bled her and sent her to the Hospital. She was hemiplegic on the left side, and retained her consciousness, which had never left her. She died on the following day, when a large clot of blood was found in the right corpus striatum, tearing up the substance of the brain, also some fluid blood in the ventricles.

Case.—A man brought in perfectly insensible; stertor; quite powerless; contracted pupils. The ventricles found full of blood, which passed down through the third and fourth to the base. The corpus striatum was only superficially ruptured, so that the blood had flowed at once into the ventricles. There was no clot in the substance of the brain.

Case.—A woman of loose character took up her night's lodging at a coffee house. On the following morning she was found perfectly insensible. The police who were called in believed she was drunk, and the Doctor that she had been drugged. She was sent to the Hospital in a perfectly unconscious state, with stertor, minute contraction of the pupils, and limbs quite powerless and flaccid. After death a large clot of blood was found occupying the right hemisphere. This had burst into the ventricles, which were full of coagula; blood also had passed through to the base, and then travelled up the sides of the brain.

I have already spoken of the results of effusion of blood in large quantity into the pons Varolii, and the difficulty in diagnosis. When the effusion is less, there need be no loss of consciousness, and, if on one side, the seventh nerve is often implicated in the paralysis.

Case.—A man, aged 50, who was said to be well in the morning, was seized with a fit. When brought in, he was conscious, and spoke, though hesitatingly. The left side of the body was paralysed, and the right side of the face. Effusion in the pons was diagnosed. On removing the brain after death, nothing was noticeable, except a swollen condition of the pons Varolii. This, on section, showed a clot on one side, just breaking into the fourth ventricle.

I had lately an opportunity of seeing a case which you may regard as a type of the ordinary form of apoplexy. A man whilst engaged in his business was seized with violent pain in the head. He then began to talk incoherently, and was assisted to his room. He then fell down, and had a convulsion. The Doctor found him collapsed, cold, face pale, and pulse scarcely to be felt. He gradually came out of the syncope, and then passed into the apoplectic state, with stertor, great rise of temperature, throbbing pulse, left side paralysed, right constantly moving, and hand pulling the bedclothes. Death in a few hours.

The collapse is sometimes very remarkable. A few months since I was called, with Mr. Stocker, to see one of the Treasurer's servants. She had fallen in a fit in the yard, and when brought indoors was cold and pulseless. Brandy was administered, and it was doubtful whether she would survive the shock. She gradually came to, when the side was found paralysed, and she has now nearly recovered.

Considering the different causes which may give rise to effusion of blood in the substance or on the surface of the brain, the symptoms must of necessity differ in detail. If the case be fatal, and a careful examination be made after death, the symptoms and post-mortem appearances can generally be made to accord, but it is not to be argued from this that such symptoms of necessity denote that particular form of disease. I have now on several occasions seen aneurisms of the larger arteries of the brain, and there have been symptoms indicative of pressure on some particular region, as well as those subsequently occurring, due to bursting of the sac and flooding the brain with blood.

Cases are constantly occurring in which many conditions of this kind may be conjectured, but none can be absolutely diagnosed to be present, the symptoms being not sufficiently distinctive. Thus a lady goes to bed well; wakes with an intense pain in the head, which continuing the Medical man is sent for; just as he arrives, she sinks into an apoplectic condition and is collapsed; she gradually recovers, and when I see her some time afterwards, she has perfectly regained her consciousness, but has complete paralysis of the left third nerve. Here is a case where you might form several conjectures as to the cause and site of the lesion. The subjects of apoplexy, as a rule, have the premonitory symptoms just mentioned, and then fall into a state of insensibility; then a gradual recovery takes place with some form of paralysis. Sometimes the premonitory symptoms are of longer duration, shown by pains or strange sensations in the limbs, headache, giddiness, etc. In other cases the vessel which ruptures is a large one, the blood bursts out in large quantities, coma comes on, and death in two or three hours. These are the cases which the late Dr. Addison was accustomed to style a "smash into the ventricles."

Since my attention has been directed to the subject, I have observed that loss of sensation very commonly accompanies loss of motion in the hemiplegic, or, to use technical phrascology, "anæsthesia often accompanies akinesia."

In these rapidly fatal cases, the blood has most usually had its source in one of the central ganglia, then ploughed up the substance of the hemisphere, or burst into the ventricles. In those cases where no further symptoms occur after the first shock and the hemiplegia, recovery takes place. If at a subsequent time the brain is seen, the remains of the effusion or its consequences are found to be limited to the spot where the effusion arose.

Occasionally blood is effused into the white substance of the brain, and then, as you might suppose, the symptoms are most obscure. In some cases where such effusions have been found, the symptoms, when sought for, have been of the vaguest character—so wanting in preciseness, that when occurring I could not desire you to diagnose apoplexy of the medullary matter of the brain, although you might suspect it. They have been symptoms which denote cerebral disturbance, as pain in the head, giddiness, sickness, faintness, followed by some reaction and labouring pulse, but nothing more distinctive.

Somewhat more definite are the symptoms which result from meningeal apoplexy, or the case where blood is effused on the surface of the brain; that is, when the fact is known the symptoms are quite appropriate, but I do not know, on the other hand, that the symptoms are sufficiently distinctive to warrant the diagnosis of meningeal apoplexy, although they may be suspected. You might imagine from what I have already told you what the symptoms would be—no paralysis, but mental confusion or delirium, ending in coma. The great importance of having a knowledge of such cases is in a Medico-legal point of view, seeing that a hæmorrhage on the surface may be either spontaneous or arise from injury. I will not enter upon this subject, as I have done so elsewhere. If blood be poured out in large quantity and quickly, coma and death rapidly ensue. In less amounts the symptoms are those of irritation. These are best seen after injury, but occasionally in the Medical wards. Thus there may be convulsive movements, or even attacks of a distinct epileptiform character. The majority of such cases in my experience have occurred in Bright's disease, and the symptoms put down to uræmia.

Case.—A little girl was under the care of Dr. Pavy with

[illegible] A young woman came into the Hospital suffering from pains in the joints and a mitral bruit. Being soon after her confinement, the condition was undetermined between [illegible] and puerperal. She soon afterwards complained of great pain in the head, and became perfectly maniacal, in which state she died. There was found a diseased mitral valve and embolic concretions in kidneys and spleen. The anterior part of the brain was covered with blood, effused under the arachnoid, and which passed down between the convolutions. There had evidently been a recent rupture of a vessel in the pia mater, although, as usual, undiscovered.

Case.—A woman, [illegible], having previously felt giddy, fell down in her room. She was taken up insensible, but recovered in about ten minutes, and spoke. In twenty minutes she again became unconscious, and, remaining in this state all day, was brought to the Hospital. She was in a perfect state of coma, with stertorous breathing; limbs rigid, with occasional twitching, and drawn up when touched. Pupils continually varied in size, and the face appeared paralysed, sometimes on one side, and then on the other. The diagnosis was uræmic poisoning. After death an examination showed the whole surface of the brain covered with blood, and which had evidently proceeded from a large vessel in the pia mater.

Case.—A young man fell and struck his head on the pavement. After recovering he went home, but appeared in a half-stupid state, and on the following day he had a fit, which was called epileptic, and on the succeeding day another. When taken into the Hospital his condition was like that of a man who had delirium tremens. On the following day he had another epileptic fit, which left him in a state almost maniacal. He continued thus for nearly two weeks, having fits, and being in the interval in a condition much resembling that of delirium tremens. The post-mortem examination showed a fibrinous clot of blood closely adherent to the cineritious surface of the brain.

You will observe from what I have said, although I should think most of you have seen a sufficient number of cases to render the statement unnecessary, how erroneous is the opinion that apoplexy (that is, effusion of blood in the brain) is suddenly fatal. This is a popular opinion, and exists, I believe, even somewhat extensively in the Medical Profession. This is evidenced by the fact that in stories and theatrical pieces the characters are made to die suddenly of apoplexy; and that the error still prevails in the Profession one may see by the daily papers, in which accounts are given of inquests being held on persons who have died suddenly, and the Medical man has attributed death to apoplexy. I will just say, once for all, that apoplexy does not cause sudden death—a popular mistake, and one not yet expunged from the minds of the Profession. The case of shortest duration of which I know is where an effusion of blood occurred on the brain, and the patient was dragged through the street, and survived only an hour.

This opinion has been promoted by another delusion—for I cannot help calling it so, although held by some eminent authorities in the Profession—which is this: that persons of a certain configuration are prone to apoplexy. It is said that the pattern of body which is most prone to apoplexy is denoted by a large head and red face, shortness and thickness of the neck, and a short stout squat build. This remark is as old as the time of Hippocrates. Hippocrates and those I quote are very good authorities, and it might appear presumptuous to differ from them; but the difference of opinion lies probably in the explanation of the cause of death. What did they observe? That such persons as just described died suddenly. True, and, according to my showing, the very proof that they were not apoplectic. The mistake has arisen from two reasons—first, the error as to the cause of death, more extended observations telling us that the suddenness of the death must have reference to the heart; secondly, the error arising from mere vulgar impression. Thus [illegible] with a red face is thought to have more blood in his head than a pale one, and therefore it is always ready to burst out into his brain. You know very well that a man with a red face has no more blood in his brain than another: it is a mere idle fancy; it is the associating two things together in our imagination which have no real connexion. It is like the association of hydrophobia with the dog days, these being named after the star Sirius, which is to be seen in our winter nights, or the erroneous belief that fever is most prevalent in [illegible]. The fact is, that [illegible] is found out in the brain, because a vessel has burst. The person in whom the vessels are diseased is consequently he in whom apoplexy is most likely to occur. Such a person is often pale and thin, with a long neck. I knew a gentleman some years ago who had such an extraordinary red face that some young friends disliked to walk the streets with him lest he should die of apoplexy; his face was of a deep purple hue, like a ripe gooseberry, which, if pricked, would let out the whole contents. This gentleman died of heart disease.

If a small amount of [illegible] effused into either of the head centres, producing hemiplegia, and no further result follow, the patient gradually recovers. The paralysis of the face soon passes off, and if it be on the left side the patient is soon enabled again to speak, although the paralysis of the arm and leg remain. I should think that, in many cases, the effusion of blood can do little more than compress and temporarily suspend the function of the part for otherwise we could scarcely account for the complete recovery which may sometimes ensue in a few days.

In most cases, however, a very lengthened time is required for recovery to occur, and this is only partial; as the blood is absorbed the parts again come into order, and their function is resumed. But since some of the conducting fibres are absolutely severed, it is impossible that motion will ever be perfectly restored. You will find, as a rule, that the leg recovers before the arm, but at the end of some months nearly all hope is gone of either limb permanently recovering if not restored by that time. You will see, therefore, how absurd it is for us to assent to the suggestion of a patient to do something for a paralysed limb after years of its existence. A week or two ago a lady asked me if something could be done for her arm and leg, which had been paralysed for twenty-five years. She was really asking for the removal of a cicatrix from the brain, and a restoration of the original tissue. This would be strikingly absurd if asked in reference to a scar on the skin.

Now what becomes of the clot? The blood disintegrates, it becomes yellow, ochry, or coffee-coloured; the corpuscles break up, and out of the colouring matter crystals form; these take at least a fortnight to form. Whether a true cicatrix may follow is doubtful; more generally some inflammation occurs around the clot, a lymph is poured out which hardens, and thus a cyst is often produced. In a person who has been [illegible] and may be found in the corpus striatum or thalamus, or a brown spot may be seen looking like a cicatrix, the remnant of the dried-up clot. In some cases of effusion of blood in the brain, it may be useful to ascertain the time of the seizure; the presence of crystals may assist us in the inquiry, as they seldom are found before two or three weeks. These crystals, which spontaneously form, are called hæmatoidin, and differ from the hæmine crystals which are formed artificially by acetic acid. The latter are small rhombic plates with acuter angles, whilst the former, which form spontaneously, are much larger and broader crystals, and of a deep ruby-red colour.

If this process of recovery do not ensue, a softening may gradually go on until neighbouring parts of the brain are involved, and then further symptoms arise, of which I shall speak when I come to softening. You may often find that the emotional powers are readily excited, as if little under the control of the patient; but whether the disease has or has not in these cases proceeded beyond the region of the ganglia I am not quite certain.

The contraction of the limb in some long-standing cases of paralysis is very remarkable. I have already alluded to a rigidity of the limb which is sometimes observed at the commencement of the attack, but I am now speaking of the permanent contraction, with a certain amount of withering of the limb, which gradually comes on after the paralysis has existed for some time. Dr. Todd believed it was due to an excitation constantly sent down the nerves from the brain, and which, under these circumstances, always presented the condition of a cicatrix, the irritation caused by which was the origin of the phenomenon. I have always known that this could not be the explanation, seeing that it occurs under a variety of morbid conditions of the brain; indeed, the most marked cases of contraction I have witnessed have been those where, so far from there being a cicatrix, the brain tissue had become altogether destroyed. In fact, it was long ago maintained by Lallemand that contraction more frequently occurred in softening. I remember the case of a man who had had his arm rigidly flexed across his chest and fingers contracted for nearly two years, and whose brain presented little more than

a hollow space on one side. It is for such reason that I have always maintained the impossibility of the rigidity being due to any influence propagated downwards, the nerves being in a state of mere negation as regards cerebral influence. An explanation has of late been given by Dr. Charcot, and referred to by Dr. Béhier, the Clinical Professor at Paris, in a lecture published in the *Medical Times and Gazette*, that the paralysed limb had undergone a great change in its tissues; the muscle was atrophied, and the nerves had become enlarged and indurated through the addition of a connective tissue. The nerve filaments had become reduced in size, whilst the neurilemma was thickened. In this condition the term "cirrhosis of the nerves" had been applied.

(To be continued.)

ON "OPTIC NEURITIS" AS A SYMPTOM OF DISEASE OF THE BRAIN AND SPINAL CORD.(a)

By T. CLIFFORD ALLBUTT, M.A., M.B. Cantab., F.L.S.,
Physician to the Leeds General Infirmary, etc.

GENTLEMEN,—My excuse for addressing you on the subject of eye affections is that I am a Physician, by which I mean that, in accordance with the artificial arrangements of Medical practice, I give my attention almost wholly to a certain list of diseases. Physiological science and the Medical art are too large to be grasped wholly and completely by one mind. Few men can have a fair knowledge of more than, say, a third part of so vast a study; and it is well that it should be divided into such parts as Medicine, Surgery, and Midwifery. On the other hand, however, much harm is done by making these divisions too rigid. Two hundred years ago, when knowledge was less, divisions which, on the ground of human incapacity, were unnecessary, were then observed for reasons of caste. The Surgeon, in that degraded time of the Profession, was distinct from the Physician as a craftsman from the professor of a liberal art. With the increase of knowledge we have retained distinctions thus founded upon social differences, but for better reasons. Our present fault is not that we still recognise some partition of the realm of Medicine, but that we still hold to certain artificial boundaries with a rigidity quite opposed to the easy and natural arrangements of modern science. Our present unnatural separation of what we call "Surgery" from that which we call "Medicine" is greatly retarding our progress, not only as scientific observers, but also as Practitioners. Let each person follow the natural bent of his own mind and the openings of his own circumstances, and let it be the business of examining and academic bodies, not to encourage, but rather to repress, the disintegrating tendency of specialism. Surgeons have now vindicated their claim to a scientific position, and yet they retain the verbal and artificial distinctions belonging to the darkest period of their history—distinctions which fret and hinder the best men in the Profession, and which forbid the great mass of students from ever taking a comprehensive view of the facts before them. It is not in the ophthalmic departments of Medicine only that this illiberal tradition is seen to act mischievously.

How is it that the most interesting and valuable methods open to the Medical man—I mean the study of the diatheses—how is it that really able and trustworthy discussions of the serial relations of morbid changes are almost unknown in England? Because our practice, and therefore the field of our mature observation, are limited by technical customs and bounded by lines which cut across the order of nature. Turn again to the affections of the eye. A screen is fixed, beyond which the ophthalmic Surgeon must not look. He may go as far as his operating instruments can go, and no farther. Hence, half his mind grows in the shade, and he tends to become what the academies try to make him—a mere operator, a craftsman. Fortunately our minds are more elastic than our methods; and ophthalmic Surgeons, in spite of the cramping traditions of "Surgery," have done a great deal for the freedom of their study. If, therefore, I were to rest my claims to your attention upon any supposed discoveries of my own, I should disappoint you. I cannot pretend to add much to that which has been gathered together by the labour of men too learned to need my assistance and too eminent to need my praise. I do desire, however, to show you under a new aspect, and therefore in new relations, a group of facts which, in other senses and in other connexions, are already known.

I think you have some idea of the line of argument I am about to take. I have constantly told you that the mucous covering of the eye is to be studied in connexion with the skin and mucous membranes elsewhere; that the affections of its fibrous and connective tissues are to be compared with affections of fibrous and connective tissues elsewhere; that its vascular coats are obedient to the same laws as the rest of the vascular system, and so on.

Now, even in a yet larger sense, this is true of the nervous parts of the eye. In them also we have to study the healthy and morbid physiology, and the characters of specific changes which are common to the optic disk, retina, and nervous tissues elsewhere, and again certain further relations which depend upon the continuity of both the nervous and the vascular elements of these parts with nervous tracts and masses, and with bloodvessels beyond them.

It is impossible, therefore, to have a real knowledge of the changes and conditions of the optic disk and retina without knowing also as exactly as possible their connexions with the brain, the spine, the sympathetic system, and the encephalic circulation. It will be my duty, therefore, to give you in the first place a short sketch of the anatomy of the nervous parts of the eye, with their connexions and origin; and, in the second place, of the vascular parts of the optic nerve and retina, with their connexions.

I assume that you are familiar with the mode of using the common ophthalmoscope, and that you have a general idea of the appearance of the reversed image of the back of the eye as shown to you by that instrument. You see that of the choroid, which, on account of the fineness of its vessels and its pigmental covering, appears as an almost uniform pink lining of the cavity of the eye. Upon it, you know, is spread the retina, which, being transparent, is only to be recognised in normal states by the delicate branches of its vessels. These vessels converge towards a pinkish white, rather oval disk placed a little to the inferior and inner side of the axis of the globe.

This disk is the point of the entrance of these vessels and of the optic fibres. The true centre of vision lies a little to the outer side of the disk, and is that most delicate part of the retina which we call the "yellow spot." You see a central depression again in the middle of this spot, which is called the "fovea centralis." The optic disk, or the papilla, as it is often called from a false appearance of prominence given to it by the ordinary ophthalmoscope, is perhaps the most interesting object in this part of the eye. It is not exactly a transverse section of the optic nerve, but is rather the centre of dispersion from which the optic fibres radiate in a cup-like expansion. The rim of the cup reaches up to the ciliary region, and is called the ora serrata. We cannot investigate the whole of this cavity without a large dilatation of the pupil. It is often said carelessly that this expansion of the optic fibres forms the retina. Such, however, is not altogether the case. Let me impress upon you that the retina is a structure distinct from the optic nerve, a structure more complex than it, and having, as I shall show you, a distinct system of nutrition. The nerve fibres, of course, enter largely into the construction of the retina; but we shall see that the optic nerve and the retina are not only distinct in structure, but are curiously independent also in their morbid changes. The proper vessels of the retina, the central artery and the central veins of the retina, though they have not much structural continuity with the optic nerve-fibres until they both arrive in the retina, are, however, closely associated with them in the orbit. The arteria centralis leaves the ophthalmic artery in the orbit to penetrate the sheath and substance of the optic trunk, and it passes through the sclerotic ring to appear in the optic disk almost at its centre. This curious arrangement, and also the disposition of its inner sheath, to which I shall presently allude, show that the so-called optic nerve is rather to be regarded as a bundle of nervules or a commissure, and bear out our belief in its importance as an offshoot of the brain. At the point of the entrance of this nervo-vascular trunk, the sclerotic is denser than at any other part of the eye, and it seems to be pierced with a number of small openings to allow the vessels and nerve-fibres to pass through. This circular pierced plate, which is really an arrangement of

(a) These lectures form part of a course delivered at the Leeds School by Mr. Lockhart and myself to Physicians and Senior Students. I have been very partial, therefore, to such matters as interest Physicians, both of ophthalmic and of cerebral disease which might in some places be naturally touched. I hope I have not overburdened this first lecture with details, and I may also hope on some future occasion to be able to take up in detail some points which are now passed by.

the neurilemma, is called the cribriform plate, and its circumference forms an unyielding ring called the sclerotic ring. As it traverses the sclerotic, the nerve bundle shows a slight constriction. You will see presently that the relation of the sclerotic ring to the optic trunk with its nerves and vessels is of great importance. There is no cribriform plate in the choroid, but a simple oval opening, which should be exactly the measure of the nerve trunk. Not infrequently, however, it is a trifle larger, and when this is the case, the brilliant bluish-white sclerotic is exposed around the disk, giving the appearance of a segmental or circular collar. This abnormity is of no pathological meaning, but often misleads an unwary observer, who may take it for commencing atrophy or excavation. From the sclerotic ring backwards, we find the optic trunk passing towards the foramen opticum. It is here protected by a very stout fibrous sheath, which is continuous with the sclerotic on the one hand, and with the dura mater on the other.(b)

The ophthalmic artery, you know, passes with the optic trunk through the optic foramen; but allow me to remind you of the different course of the ophthalmic vein, which passes out by the sphenoidal fissure and ends in the cavernous sinus. If we remove the tough outer sheath of the optic bundle, we find below it a second sheath also enclosing the bundle, and this inner sheath, which is continuous with the pia mater, although more dense, tough, and fibrous than the pia mater, yet is thinner and less compact in structure than the outer sheath. It not only encloses the bundle, but it also sends off prolongations or partitions which pass into the substance of it and divide it into numerous longitudinal channels. These partitions are, indeed, continuous with the sheaths of the fibrils themselves—a peculiar arrangement which shows, as I have said, that the "optic nerve" is not so much a nerve as a bundle of nervules. I lay some stress upon the disposition of this connective tissue, as it is greatly concerned in some of the morbid changes which I shall have to bring under your notice.

The nerve bundle, then, contains nervous tissue or nervules, the artery and vein of the retina, and fibro-connective tissue. I have now to describe another set of vessels which are of great interest, and which play an important part in the health and disease of the nervous trunk. These vessels may be called the special circulation of the optic trunk, and I believe that we owe our knowledge of them more especially to M. Galezowski, who has described them and explained their pathological significance. These are the vessels which give its rosy tint to the optic disk, and they are independent of the central or retinal circulation.

You know that the optic nerves take their origin chiefly from the corpora quadrigemina, which bodies, on grounds both of physiology and of pathology, we now regard as the principal, if not the only, centres of vision. Two little tracts or ribbons take their rise in the corpora quadrigemina and their neighbourhood, coast around the thalami, cross the crura cerebri, and then detach themselves from the encephalic mass. After this detachment the tracts of the two sides unite to form what is called the chiasma, from which the optic nerves branch off to each optic foramen. This chiasma is an oblong nervous mass of some size seated over the sella turcica and the pituitary body. It is connected above with the floor of the third ventricle. Behind it is the pineal gland. Now, in the course I have described to you, the optic tracts, according to M. Galezowski, receive several important vessels. These are—

1. An arterial branch entering at the posterior border of the testes and distributing itself to them. This Galezowski calls the artery of the testes, or the posterior optic artery.

2. Four vessels of some size which pass into the optic tracts on the level of the posterior border of the cerebral peduncles. Two of these vessels are arteries, and they may be called the vasa geniculata or middle optic arteries. They arise from the choroid plexus.

3. A rather large branch coming from the middle cerebral artery, and which passes to the corresponding optic tract. This may be called the anterior optic artery.

4. Finally, filiform branches passing from the pia mater to the chiasma.

[illegible] with the [illegible] sheath [illegible] which [illegible] individual [illegible] which [illegible] in [illegible] tracts [illegible] are precisely [illegible] I [illegible] only to the former statement.

The veins are associated with the arteries, and need no special description.(c)

If in addition to these vessels we also bear in mind that the optic nerves and tracts are very extensively and closely invested by the pia mater, which gives off nutritive branches to them, we shall have a clear idea of the mode of this circulation which nourishes the optic tracts and nerves. Nor, when we look at the size and complexity of these parts, shall we feel any surprise at so elaborate a vascular supply. Now all these branches unite to form an uninterrupted network of vessels which extends from the tracts to the disk, and it is to them that the rosy tint of the disk is due. Its vascularity is therefore a cerebral vascularity, and not an offset of the ophthalmic artery like the vascularity of the retina. I hope to show you that these apparently small details bear closely upon the phenomena of morbid change as seen by the ophthalmoscope.

(To be continued.)

ORIGINAL COMMUNICATIONS.

REMARKS ON COHNHEIM'S NEW DOCTRINE.

By Dr. LIONEL BEALE, F.R.S.

Cohnheim has discovered the remarkable and interesting fact that, in the living frog, white blood-corpuscles may be seen to pass through the walls of the blood-vessels, and has arrived at the conclusion that the corpuscles in their new situation are *pus-corpuscles*. But it is difficult to understand how, by the mere passage through membrane, so great a change as is supposed can be effected; for a white blood-corpuscle is one thing, and a pus-corpuscle another. Suppose the "pus-corpuscle" to pass back again into the vessel, does it remain a pus-corpuscle, or is it again converted into a white blood-corpuscle? But the idea of a true pus corpuscle becoming a white blood-corpuscle cannot be entertained. It would be as unreasonable to maintain that it might become a brain-cell. It seems to me that in this view there is a confusion of things quite distinct from one another. A pus-corpuscle is as far removed from a white blood-corpuscle as it is from a healthy epithelial or other cell.

If it be said "a white blood-corpuscle looks like a pus-corpuscle," I would answer "No two forms of germinal matter, however they may differ in origin, properties, or powers, can be distinguished from one another by their microscopical or chemical characters. We could not distinguish the germinal matter of the lowest simplest living thing from that of the highest brain-cell of man. They differ in power and in action, although the material composing the one resembles in appearance that which constitutes the other."

Can the notion that every one of the numberless rapidly formed pus-corpuscles in a common abscess, was once a white blood-corpuscle circulating in the blood, be maintained for a moment? Is it probable that the pus-corpuscles in an inflamed urethra or bladder, or those on the conjunctiva in a case of purulent ophthalmia, were just before circulating in the blood? Let the reader but consider what such a doctrine as this involves.

I will remark at the outset that the process of suppuration as it occurs in warm-blooded animals does not take place in the frog. At the high temperature of the former any excess of nutrient matter present would soon undergo decomposition if it were not quickly appropriated by the adjacent masses of germinal matter which grow at its expense and multiply in number. In cold-blooded animals, on the contrary, there is little chance of decomposition, and there is not the same necessity for the rapid appropriation of nutrient material.

In all cases, true pus-corpuscles are the descendants of normal germinal matter, and result from its increase and multiplication at a greater rate than occurs in health. If the living germinal matter of any tissue, or that composing white blood-, lymph-, or chyle-corpuscles, receives an increased supply of pabulum, it will grow, divide, and subdivide, and at a gradually increasing rate, if the conditions be favourable. The masses resulting from this process acquire properties and

[illegible] I have [illegible] these [illegible] [illegible] [illegible]

powers very different from those of the originals. Hence, although a white blood-corpuscle, growing and multiplying under altered conditions, may give rise to multitudes of pus-corpuscles, *nothing can, I think, convert an individual white blood-corpuscle into a pus-corpuscle*, and it is quite certain that under no circumstances whatever can pus-corpuscles undergo conversion into, or give origin to, white blood-corpuscles. We might as well proceed to discuss whether a new and highly elaborate structure, with vessels, nerves, and special anatomical elements, could be formed from the contents of an abscess.

To me it seems proved beyond question that pus-corpuscles may result from the multiplication of the germinal matter, not only of epithelial cells and of connective-tissue corpuscles, as Virchow proved, but also of that of nerve and muscle, of the walls of vessels, nerve cells, white blood-corpuscles, and other forms of germinal matter in the body; but I think it as unreasonable to call a white blood-corpuscle, which has changed its position, a pus-corpuscle, as it would be to give that name to the germinal matter set free from an epithelial cell or a cartilage cell. All the above-mentioned masses of germinal matter may give rise to pus, if they grow and multiply under altered conditions, but they are not pus.

In the blood, besides the white blood-corpuscles, are numerous minute masses of germinal matter of a similar nature. In inflammation such masses are seen in immense numbers outside the vessels. These growing and multiplying in their new position may give rise to pus-corpuscles. "I have shown that there is strong reason for concluding that when the capillaries are much stretched, as when fully distended with blood, particles of living germinal matter, probably derived from the white blood-corpuscles, may make their way through the walls with some of the serum, and grow and multiply in their new position. Thus an 'exudation' will in many instances contain particles of living growing matter, and these particles absorb nutrient matter, and soon *become the spherical granular cells which are often seen external to the vessels in inflammation.* They do not become aggregated together, as Dr. Bennett supposed, but each absorbs nutriment, and, just as in the case of all other masses of living matter, grows and divides and subdivides. This view concerning the origin of many of the corpuscles in exudation is supported by the fact that in pneumonia and in some other conditions in which the capillary distension is very great, red blood-corpuscles, which are much larger than the particles of living matter just referred to, pass through the capillary walls. *Every one who has made many minute injections is familiar with the fact that minute longitudinal rents or fissures may be made quite wide enough for a red blood-corpuscle to pass through edgeways. It is, therefore, certain that particles of minute size may pass through capillary walls without the occurrence of actual rupture.*"—*Medical Times and Gazette*, September 23, 1865.

We may surely accept the fact that white blood-corpuscles may pass through the vascular walls without committing ourselves to the conclusion that they become pus-corpuscles, and that in this way all pus is formed. In inflammation of the pia mater, of the kidney, and other tissues, numerous white blood-corpuscles are to be seen occupying the so-called perivascular spaces, but this is no evidence of suppuration. On the contrary, from these corpuscles a form of fibrous or connective tissue is formed, by which the wall of the vessel is thickened, sometimes to three or four times its normal diameter; and surely it is much more in accordance with all the facts of the case to conclude that the white blood-corpuscles as soon as they have escaped are concerned in the formation of a fibrinous material to strengthen the thin walls of the vessel at the seat of their escape, so as to prevent the escape of more, than that they are but the pioneers of a most extensive emigration. And we have a right to ask what leads the white corpuscles to move through the walls of the vessels, if no rents or fissures are made by the preceding over-distension? What determines the selection of the seat of passage? Surely, to account for this, we must conjure to our assistance some mysterious nerve or other agency. It would be hardly wise to maintain that the corpuscle has the will and wisdom to choose the way as well as the power to move, notwithstanding the distinguished Virchow himself has not hesitated to accredit epithelial cells with most marvellous attributes, even of desiring to assist friendly epithelial cells in distress. We may explain the facts known in connexion with inflammation and pus formation without resorting to the far-fetched hypothesis of irritation, or believing in the identity of two things so very distinct from one another as the white blood-corpuscle and the pus-corpuscle.

ON A CASE OF POISONING BY OPIUM.

By CHARLES MEYMOTT TIDY, M.B.,

Joint-Lecturer on Chemistry at the London Hospital.

Few cases have of late produced more public interest than that of a man found dead in a cupboard at Hackney-wick. A post-mortem examination was made by Mr. Gant, who, detecting nothing that would account for death, forwarded to me, for chemical examination, the stomach and also a bottle found at the side of the deceased marked "Laudanum, poison," upon the side of which was a small quantity of a brown powder. Now, from all accounts that we can gather, the man must have been dead upwards of two, and probably nearer three, months. The stomach was in a semi-decomposed state, and, when opened, merely seemed to be lined with a brownish-red matter. Of course, from its advanced state of decomposition, it was impossible to make out any peculiar post-mortem appearances. Upon subjecting, however, one-half to analysis, I detected morphia in considerable quantity, and a mere trace of meconic acid. The bottle, I found, contained opium. These results I afterwards showed to Dr. Letheby, who confirmed the opinions at which I had arrived.

I would venture to make two remarks upon this case, of some importance in the investigation of poisoning by opium.

1. The discovery of opium after death is a matter of considerable uncertainty. Dr. Letheby has told me of a case where, within a very short time after death, he was scarcely able to discover the least trace of opium, although there was not the slightest doubt that death had been caused by it; whilst he detected opium in another case where a man had been dead upwards of twelve months. In this case, after three months there was not any doubt as to the cause of death, so decided were the reactions of the morphia. The question arises then, How is it that at one time the detection of the poison is so difficult (indeed impossible), at another so easy? Dr. Letheby said at the inquest that no doubt the man had died very soon after taking the laudanum; and for this reason, that the action of the living stomach on vegetable poisons is very active, whilst the dead stomach has little or no action upon them. Had the man lived for some short time after taking the drug, probably no trace of the poison would have been discoverable. And this I have found to be the case in two dogs upon which I have since experimented. In the one that lived for about thirty-six hours after having taken the opium, I was entirely unable to discover a trace of the poison; whereas, in the second, where death occurred within two hours after the administration of the same quantity given in one dose, its detection was a matter of no difficulty. I have before referred to this action of the living stomach on colocynth in a report I published in the *Lancet* of February 1, 1868, on a case of poisoning by that drug, where, although there was not a doubt that death had been caused by it, I was unable to detect it, from the circumstance, no doubt, that the woman had lived for a considerable time after its administration.

2. I notice that whereas the reactions of the morphia were most decided, I could only detect but the merest trace of meconic acid. Upon this I made several experiments with opium in organic liquids, using respectively one-tenth, two-tenths, and three-tenths of a grain in about five ounces of tea. Upon treating these in the ordinary way, I was not able to detect the meconic acid with the solution containing the one- and two-tenths of a grain, and but a very slight discoloration with a persalt of iron in that containing three-tenths.

Further, I feel convinced that decomposing the plumbic meconate with sulphuretted hydrogen is infinitely to be preferred to a plan often recommended of boiling with dilute sulphuric acid. Meconic acid is easily decomposed by heat, and in this way its use is altogether avoided. It is advisable also to avoid evaporating down the solution, if possible.

I am, therefore, inclined to think that in cases of opium poisoning we must not always expect to find meconic acid, even where the reactions of the alkaloid are very decided and unquestionable.

Cambridge-heath, Hackney.

The National Orphan Home.—Her Royal Highness the Princess Mary Adelaide has consented to open the new wing and infirmary of this institution on Wednesday, June 3.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

APOPLEXY AND DRUNKENNESS.

We have recently seen several cases in which the error of mistaking cerebral hæmorrhage for drunkenness had been made. Patients are still occasionally locked up in a police cell for drunkenness, and when the insensibility does not clear away, they are brought to the Hospital. Thus—we omit the name of the Hospital in this instance—a man, 62 years of age, is found insensible in the street at 3 or 4 a.m., is locked up by the police, but afterwards, rapidly getting worse, is, at 6 a.m., brought to the Hospital. When admitted, he moved all his limbs a little, the right pupil was much larger than the left, and his urine contained albumen. He died in less than twenty-four hours. A very large clot was found in the right hemisphere, chiefly in the anterior lobe, and slanting upwards so as to lie above the right lateral ventricle. When the man was brought to the Hospital it was plain that he was fatally ill, although there were no symptoms to fix the nature of the lesion by which he was comatised. It is in the earliest stage of such cases that we are in doubt as to drunkenness. The man *had been* drinking—it being the twenty-fourth anniversary of his wedding day—when, quarrelling with his wife, he suddenly rushed into the street. His wife, however, denied that he had been drunk, but she may have thought proper to conceal his real condition.

A woman, whose name and age were unknown, but who was supposed to be about 35 years of age, was brought by the police to the Hospital, at 7.35 a.m., and died about five minutes later. She had been picked up the night before, and had been taken to the police-station under the supposition that she was soundly drunk. Extensive cerebral hæmorrhage.

It is obviously far better to mistake drunkenness for apoplexy than apoplexy for drunkenness, and when any one is found deeply insensible, a Doctor ought to be sent for, and the patient should be carefully tended. Even when nothing can be done for him, it is sad that a man should die of cerebral hæmorrhage in a police-cell.

We may venture to say that we have not merely to decide for or against one of the two things, drunkenness *versus* clot, injury, uræmia, etc., but has also to consider whether there really is sufficient evidence to warrant a conclusion at all. To be determined to come to a decided opinion is easy to those who have no clear views, and is often the sign of a very limited, and especially of a mere book, experience. Now, the fact is that it is very often altogether impossible to tell to what a patient's coma is owing when he is found comatose in the streets. We ought to know how the Profession stands in this matter. It is not fair for a Coroner to blame a Doctor for not making a correct diagnosis where a diagnosis really cannot be made. We may just review the symptoms on which reliance is placed by some.

(1) The smell of drink, or the fact that the patient became insensible in a public-house, really should not be allowed to make the diagnosis for us. It would be illogical to say these signs are worth nothing, but they are really too often the sources of sad mistakes. (2) Nor does the absence of any local paralytic symptoms (hemiplegia, facial distortion, etc.) negative hæmorrhage, nor, where the coma is deep, even render it very unlikely. When much blood is effused in the pons, when there is a large clot in one cerebral hemisphere, or when the lateral ventricle is broken into, there may be no discoverable palsy—i.e., no local palsy. This is so in cases in which there have been symptoms at the onset pointing clearly to cerebral hæmorrhage. When such local symptoms are present, or it we know them to have been present, we feel easy as to diagnosis. (3) If the patient had had a convulsion, or if he have twitchings on one side, the case would not be one of drunkenness, although the diagnosis beyond this would still be most uncertain. (4) Again, to test that we can in deep drunkenness rouse the patient, whilst we cannot in cerebral hæmorrhage, is of little value. There are all degrees of mental obscuration in cerebral hæmorrhage as well as in drunkenness. If a patient can be roused to speak intelligibly, the test favours drunkenness; but if he merely swears or utters a few irrelevant words he may still be suffering from fatal cerebral hæmorrhage. We wish to urge this point in particular. It may be said that when a partially insensible person swears and struggles his condition signifies drink, and the subsequent deep insensibility cerebral hæmorrhage, which came on from the drink. This may possibly be the case in some instances, but cases of injury to the head show that, after a sudden severe lesion of the brain, enough—perhaps with subsequent hæmorrhage—to kill in a few hours, there may be no insensibility shortly after the injury. The subsequent occurrence of coma, however, and of other nervous symptoms is in many such cases accounted for by gradual hæmorrhage after the injury. But here is the point. The symptoms, when they do set in, do not always set in in the orthodox way—namely, by slowly creeping stupor, by convulsions, or by hemiplegia. The patient may become violent, may swear, and, as in a case we saw in Mr. Hutchinson's practice, may decline to put out his tongue, saying that "it did not matter to them about his tongue." Now, it may safely be said that, had this patient been found in the streets by the police, he would have been locked up for drunkenness, though he died of severe injury to the brain. We have recently seen several cases in which this unfortunate mistake has occurred. A very slight injury, a fall on the kerb-stone, will produce arachnoid hæmorrhage, and even fracture of the base. The symptoms mostly come on after an interval, and they may simulate drunkenness, or the injured person may be drunk too. (5) We should examine the urine, and if there were albumen in it we should think there was more than drunkenness, and, at all events, we should treat the man as a patient, and not as a criminal. We might, however, find alcohol in the urine by the bichromate of potash test. The mere presence of alcohol, however, is not to be relied on. It does not show that the patient has taken a *poisonous* dose. But Dr. Anstie says that practically we may infer the presence of a *poisonous* dose of alcohol in the system if *one drop* of urine added to 15 minims of the chromic acid solution turns the latter *immediately* to a bright emerald green. It is most important to observe that the mere presence of alcohol does not lead us to a diagnosis, but the decided and sudden reaction alluded to brings us nearest to certainty in concluding that the man has taken enough alcohol to account for his coma. Even then there may be cerebral hæmorrhage as well. However, this is hypercriticism.

So now we have inferred that when the patient is found comatose or even much confused only, we frequently cannot tell whether he is dead drunk or comatose from some more serious cause, except perhaps by testing the urine. It will seem, after our laments on the mistakes the police make, that this is a lame and impotent conclusion. It is our duty, however, to present a realistic view of things, and not a comfortable one. Besides, although it may diminish our faith in our special power of diagnosis, it is, in reality, the safest both for us and the patient. He who goes to a case of coma with the largest experience, goes with most doubts, and gives his patient the best chances of recovery, because his doubts lead him to take greatest care of him. We willingly admit that those who have had a large experience—*e. g.*, Surgeons to the police—become able to arrive at a correct conclusion in most cases. It is, however, a kind of experience which is not easy to put in words. What we want are rules to guide those who have not such large opportunities. With regard to the five points referred to above, we do not deny that the signs criticised have great value in most cases; but we think they are not *safe* guides.

To the best of our knowledge, the coroner—*i.e.*, the non-Medical coroner—thinks the diagnosis of drunkenness is an easy matter, and severely handles the Doctor at an inquest when a patient who has been locked up all night for drunkenness is found to have died, for instance, from an enormous clot in his brain. The coroner is wrong in blaming the Doctor for not making a correct diagnosis in, at all events, most cases. He should direct that all people who are found violent, partly insensible, or comatose, should be well cared for, whether they are drunk or not.

KING'S COLLEGE HOSPITAL.

TWO CASES OF STRANGULATED HERNIA.

Several patients have during the past few days been admitted into King's College Hospital with strangulated hernia, four cases in five days. They may serve as a text for some necessary remarks on an important matter of practice. Whenever a case of strangulated hernia is received, it always requires prompt and decisive treatment. This will strike our readers

as too obvious for remark; but, as a matter of fact, the principle of practice is not even yet acted up to, and requires, therefore, to be strongly stated again. We hear Hospital Surgeons bitterly lament the delay which occurs by the perseverance in "mild" measures where more prompt action is essential. Many lives have been, and are still, lost from this cause—viz., that the Surgeon who first was called in did not act with decision, or was not allowed to do so by the patient's friends. Many, if not most, of the cases of strangulated hernia received at a public institution have had previous Surgical advice, and too often the patients have been subjected to great and repeated efforts at reduction by the taxis, aided by the exhibition of many drugs, though but rarely have these efforts been seconded by the administration of chloroform. Some Surgeons seem by their practice to object most seriously to the use of the knife in these cases, and procrastinate the performance of a cutting operation. Thus the patient has not a fair chance when the operation is to be done. This has been said over and over again, and still requires urging. We may here quote some pointed remarks from a portion of Dieffenbach's "Operative Surgery":—"It is not too much to say that to see a Surgeon postpone an operation after the ineffectual use of the taxis properly applied, is much the same as the conduct of that man who, on going into a room and seeing a fellow creature who had just hanged himself, quietly put his hands in his pockets, seated himself before the unlucky individual, and, instead of cutting the cord, called for soap-liniment, and began rubbing it into the soles of his feet."

No doubt, in many cases of recently strangulated hernia it is advisable to make more than one attempt to reduce them by taxis, aided by the warm bath or chloroform, before having recourse to the knife; but great care is necessary in discriminating between cases in which the taxis may be employed for a considerable time, and those in which it would be hazarding the patient's life to hesitate for an instant on the employment of the scalpel.

If the hernial tumour be not painful, and the case "slow and languid," as Mr. Lawrence calls it, delay may be safely indulged; but with a young plethoric patient with a quick hard pulse and hiccough, the abdomen being tender, and the hernial tumour tense and horribly painful, the operation should at once be proceeded with. It is in these latter cases that more than one instance of rupture of the intestine has followed persistent attempts to reduce a strangulated hernia by manual force.

(Case under the care of Mr. HENRY SMITH.)

Case 1.—Catherine W., aged 50, married, was admitted into the Small Female Surgical Ward, under the care of Mr. Henry Smith, for strangulated femoral hernia, January 27, 1868. The patient states that she has had a rupture of the right side for about seventeen years. "The tumour would easily be put up, but would return on the least exertion." But it never gave her any trouble till Sunday, January 26, 1868. On this day, Sunday, she felt much pain in the groin, the hernia could not be reduced, and she vomited a good deal, especially during Sunday night. The next day a Doctor attempted to get back the intestine, but without success.

Present Condition.—She is a strong, hardworking-looking woman, with a swelling about the size of a large walnut in the right groin, just below Poupart's ligament. Is in very great pain, her abdomen being very tender. She complains bitterly when the tumour is touched, vomits, very freely, matters which smell badly, and is covered with a cold sweat. Her pulse is hardly perceptible.

The House-Surgeon not being able to reduce the hernia, even though the woman was under chloroform, Mr. Henry Smith was sent for, and operated in the usual manner. The gut was exceedingly congested. Opium exhibited (tinct. opii ℥xxx.).

January 28.—Vomited once or twice since operation. Ordered brandy with ice, no food, but a dose of opium (tinct. opii ℥xx.) morning and evening.

29th.—Vomited again last night, but feels much better this morning. Very slight tenderness of abdomen. Ordered tinct. opii ℥x., acid. hydrocyan. ℥iv., aquæ ℥j., t. d. s.

31st.—Much better; no vomiting; no anxious expression; no tenderness.

From this date the patient did well. She was discharged February 29.

(Case under the care of Mr. PARTRIDGE.)

Case 2.—Frances N., aged 56, was admitted into the Small Female Surgical Ward, under the care of Mr. Partridge, with strangulated femoral hernia of the left side, January 31, 1868. In the year 1837, the patient states, she noticed for the first time a swelling in the left groin, but could not account for its presence. However, as it did not occasion her any inconvenience, she did not worry herself about it. In 1850, for the first time, the swelling became exceedingly painful, and the patient, becoming seriously ill, consulted a Surgeon, who told her it was a rupture, treated her, and on leaving advised her to wear a truss. This she had done up to her admission into the Hospital, but has been subject to excessive fits of pain at periodic intervals. About a week previous to admission one of these painful fits in the hernia came on, and did not, as usual, subside in the course of a day or two. The tumour became more and more painful, the bowels were confined, and at last nausea and vomiting were present. Admitted as above.

Present Condition.—She is a very old-looking woman, very thin, and careworn. In the left groin, below Poupart's ligament, and curling up over the upper edge of the femoral ring, is a tumour the size of a large hen's egg. This is excessively painful, and the abdomen full and tense. The bowels have not been opened for a week, and there is constant vomiting. The pulse is very weak, and is intermittent. The woman was got under the influence of chloroform, and Mr. Partridge, making a straight incision over the tumour parallel to Poupart's ligament, opened the sac, bringing into view a knuckle of small intestine and a considerable piece of omentum. The stricture was divided and the intestine returned, but it was found impossible to replace the omentum in the abdomen. This, therefore, was ligatured in two halves and cut off. The bowel was very much congested.

February 1.—No pain; has not been sick since the operation. Says "she feels very well."

2nd.—Bowels open of their own accord; has had difficulty in passing water; wound looking sloughy. Poultice applied. Brandy ℥vj., tinct. opii ℥xx., aquæ ℥j. at night.

4th.—Slough separating; patient expresses herself as feeling well. No tenderness of abdomen; bowels open.

8th.—Slough has separated, and the wound looks very healthy.

12th.—Bowels regularly open every day; wound healing rapidly.

25th.—Wound nearly healed; it is dressed with a solution of Condy's fluid.

March 4.—Complains of a dragging pain in the wound, but it is quite healthy and bowels are open. Allowed to get up for two or three hours every day.

15th.—Quite well.

These cases, it may be remarked, exemplify what was advanced in the introductory part of this report—viz., that some hernias must be operated upon at once, whilst others will bear delay. In the first case the gut had been strangulated only twenty-four hours, but the symptoms were unusually severe. The vomited matters were almost stercoraceous in character; the patient was intensely feeble, the extremities cold, and the body covered with a clammy perspiration. Now in the last case, though the strangulation had existed a week, yet the patient was not nearly so exhausted or in so bad a way. Not only was this patient less affected by the constriction of the gut, but she was well able to bear the necessary operation, and to withstand afterwards the sloughing of the wound.

THE LONDON HOSPITAL.

POISONING BY STRYCHNIA — TREATMENT BY CHLOROFORM INHALATIONS — RECOVERY.

A GIRL, 4 years of age, was admitted April 20, with well-marked symptoms of having been poisoned with strychnia. The account given by her friends was as follows:—Her grandmother had, half an hour prior to the child's being brought to the Hospital, given to her a powder for destroying mice, in mistake for an ordinary rhubarb powder. The child very soon became convulsed, and had had two "fits." She had been taken to a chemist, who gave her an emetic, which did not act. She was then brought to the Hospital. As the Medical officer was engaged in the wards, to prevent any delay the case was seen by the House-Surgeon on duty, Mr. M'Carthy. The child was lying on her left side; there was well-marked opisthotonos, the head being drawn very much backwards; her expression was very anxious; eyes widely opened; pupils dilated; lips livid and retracted; walls of chest fixed; respiration irregular; pulse weak, rapid, and almost imperceptible.

tible, and every muscle in the body in a state of incessant twitching. This last symptom became greatly aggravated whenever the child was touched. Chloroform was administered without delay, and the little patient became almost instantaneously insensible. The pulse became full and strong, the respiration regular, and the anxious expression of countenance disappeared. The child was kept under the influence of chloroform for an hour and a half. During the earlier part of this period, whenever the chloroform ceased to be administered, the slightest touch on any part of the child's body produced twitchings in every muscle. After about three quarters of an hour, however, the orbicularis oris was the only muscle so affected. The child vomited a quantity of fluid, with some half-digested food, about half an hour after admission. When the child had been kept insensible for an hour and a half, the chloroform was omitted, as the twitchings had not recurred for some time. On awaking, the child was perfectly sensible and composed, and, with the exception of some occasional twitchings of the mouth and spasms of the arms during the day, had no unfavourable symptoms, and was discharged quite well on the third day.

A powder similar to the one she had taken was tested, and was found to contain strychnine.

GUY'S HOSPITAL.

CEREBRO-SPINAL MENINGITIS—DEATH—AUTOPSY.

(Under the care of Dr. WILKS.)

The following case is a rare one, and it is not easy to say anything definite as to the cause of the striking appearances found post mortem. Dr. Wilks did not consider it to be one of epidemic cerebro-spinal meningitis. We have seen a case much resembling it in an infant who had been under Dr. Ringer's care at the Children's Hospital. In that case the ventricles were full of pus, and there was no tubercle, nor was there anything found by which to explain the origin of the disease. One symptom which this child had was that the head was persistently thrown back, and, whether from this circumstance or not, Dr. Ringer diagnosed that there was great effusion into the lateral ventricles.

The case belongs, in its life history, to a clinical group—a very loose one, it is true—in which the post-mortem changes are very different. The term "Cerebral Fever" may serve as a name for the group. The symptoms were all general, and pointed only to this, that the patient was acutely ill from some disease inside his head. There were no localising symptoms, such as hemiplegia, or palsy of cranial nerves.

We do not know how in such a case the seat and nature of the intracranial change could be predicted. We have seen many cases in general features like the one we relate, in which all sorts of diagnoses have been negatived. We should, we imagine, start from a large clinical grouping of cases, in which the symptoms have been severe pain in the head, delirium, stertor, and coma, perhaps vomiting, disorder of pulse, especially slowness and irregularity, retracted belly, "cerebral streak," etc., and then see if, from a number of cases completed by pathological examination, there is any special order, degree, or continuance in these variously compounded symptoms which make up the acute cerebral disorder to tell us what changes we are to expect to find post mortem in particular cases. This is a vague starting-point, but we have no other choice. We have seen tubercular meningitis in the adult mistaken for almost all kinds of acute cerebral disease, and, on the contrary, we have repeatedly seen meningitis diagnosed when nothing of the sort has been found at the autopsy. It is not difficult to say what symptoms *have* been found in tubercular meningitis, acute softening, etc.; but when we are called to the bedside of a patient who has what may be shortly called, in the language of Trousseau, Cerebral Fever—the old brain fever—we too often find that the symptoms we discover are not characteristic of any pathological process.

Although pathological work is vitally necessary, and is most likely the best kind of work done nowadays, we have still to arrange our thoughts in a clinical fashion in actual practice. Thus, we are not always called to patients with injuries to the head, nor to patients suffering from acute alcoholism, but, for instance, to people who have fallen downstairs, or who have become comatose whilst drinking. He who has learned what symptoms are present in certain injuries to the head, in alcoholism, in apoplexy, etc., will have, when he comes into practice, to reverse the arrangement of his thoughts his previous study has given, the problem being often like this:—A man is found comatose in a public-house, or on the kerbstone, or at the bottom of a scaffold; how are we to find out to what the coma is due?

A barber, said to be steady and temperate, 45 years of age, was admitted under Dr. Wilks's care March 5, 1868. He had complained of headache, but was able to attend to his business. He was observed by a customer one morning kneeling, with his hands folded together. Afterwards he was found on the floor insensible; his teeth were clenched, but he was not observed to be convulsed. He was once sick, and passed a motion after the administration of medicine. He was brought to the Hospital next day, and was then conscious. On admission he complained of headache, looked careworn, forehead corrugated, was unwilling to answer questions. There was no rash. There was neither paralysis nor spasm. The urine was not albuminous.

March 6.—Delirium through the night.

8th.—Less conscious.

9th.—Passed fæces and urine involuntarily, and appeared to be almost maniacal; was very wakeful, and refused food. Skin hot.

12th.—Subsultus.

13th.—Chest dull posteriorly, and crepitation at both bases. He continued at times maniacal until the 23rd. Sometimes there was low delirium. He died March 24.

Autopsy from Dr. Moxon's Records.—The arachnoid was slightly over the edge of the left hemisphere anteriorly. There was pus in several places under the arachnoid, and a few spots on the arachnoid appeared greasy, but there was no lymph. The arteries were normal. There was no disease of either the white or the grey matter, and, although the ventricles were full of pus, there was no sign of abscess in the cerebral substance. The subarachnoid spaces over the pons and interpeduncular space and over notch in cerebellum were distended by pus. The medulla was almost bathed in pus. There was no tubercle. Spine: There was pus also in the spinal subarachnoid space, anteriorly more particularly. At the inferior end there were two little rounded bodies, not unlike tubercles, on the ligamentum denticulatum, and the pia mater was somewhat congested. Chest: A little lymph at the base of the lungs, and there was commencing hepatisation in lower lobe of left. No tubercle. The kidneys weighed nine ounces, slightly granular, and darkish. One contained two small cysts. Each kidney contained a small white spot, something like a tubercle.

A Preliminary Meeting for the purpose of effecting arrangements for the representation of England in the forthcoming International Medical Congress on Naval Medicine, to be held in Havre during the Maritime Exhibition there, will be held to-day, at five p.m., at the Inns of Court Hotel, Holborn. Gentlemen interested in the subject are invited to attend. It is to be hoped that the greatest naval power in the world will be well represented on the occasion of the Congress.

The Levee.—By command of the Queen a Levée was held on Monday, May 4, at St. James's Palace, by his Royal Highness the Prince of Wales on behalf of her Majesty. The following presentations took place:—Deputy-Inspector-General of Hospitals T. W. Barrow, by the Director-General of the Army Medical Department; Inspector-General of Hospitals Dr. G. S. Beatson, on appointment as Honorary Physician to the Queen, by the Director-General of the Army Medical Department; Mr. Alfred Cooper, F.R.C.S., by the Duke of Wellington; Deputy Inspector-General of Hospitals Dr. C. A. Gordon, C.B., by the Director-General of the Army Medical Department; Surgeon A. J. L. Hepworth, M.D., 3rd Hussars, by Lieutenant-General Hankey; Inspector-General of Hospitals R. Lawson, by the Director-General of the Army Medical Department; Surgeon T. B. Reid, R.A., by Colonel W. A. Middleton; Assistant-Surgeon T. G. Skardon, her Majesty's Bengal Army, by the Secretary of State for India; Surgeon William Ramsay Steuart, R.A., by General Sir J. M. F. Smith, K.H. The following gentlemen attended the Levée:—Sir Henry Thompson, Sir Charles Locock; Dr. Alderson, President of the Royal College of Physicians; Dr. George Owen Rees, Dr. Cape, Dr. Lyon Playfair, C.B., Dr. Baines, Dr. Logan, C.B., Dr. Routh, Dr. Thomas King Chambers; Mr. Du Pasquier, Mr. Erasmus Wilson.

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Medical Times and Gazette.

SATURDAY, MAY 9, 1868.

THE NEW ST. THOMAS'S HOSPITAL.

The foundation-stone of this Hospital will be laid on Wednesday next by her Majesty the Queen. We have obtained the latest particulars in reference to the ceremony from the Hospital authorities. The arrangements are most complete, and no expense has been spared to render this a very imposing spectacle. It augurs well for the future of this noble structure that the preparations should have been so satisfactorily carried out.

Our readers will be aware of the circumstances which necessitated the removal of St. Thomas's Hospital from the foot of London-bridge to its temporary abode at the Surrey-gardens. The South-Eastern Railway Company, anxious to extend their line to Charing-cross, proposed to purchase a portion of the grounds, including the north-west wing of the Hospital, but the governors, foreseeing the damage which would accrue to the Hospital by the proximity of the proposed viaduct, very rightly agreed to compel the railway, if possible, to take the whole building off their hands. The subject was carefully investigated by a select committee of the House of Commons, who decided the case in favour of the governors, £296,000 being awarded as the compensation and purchase of the entire building. It now became necessary to look out for a suitable site on which to erect the new Hospital. Some were in favour of its being removed to the suburbs, and various localities were recommended for the consideration of the governors. One of these was in the vicinity of Lewisham, and the question of a suburban site was freely discussed in our columns at the time. Others were in favour of purchasing Bethlehem Hospital and remodelling it, but none of these propositions were approved of. At this juncture the Metropolitan Board of Works offered the present site at Stangate, which consists in part of land reclaimed from the bed of the river by the erection of the South Thames embankment, and extends from Westminster-bridge to Lambeth Palace. Such a commanding position, immediately facing the Houses of Parliament, and in a densely populated neighbourhood without any Hospital accommodation near, very soon induced the governors to accept the offer on the proposed terms. The Metropolitan Board of Works undertook to prepare the ground, and enclose by the river wall the space on which the Hospital should be built. The Hospital will stand high and dry upon a solid basis of concrete varying from five to twenty-six feet in depth. There need be no anxiety lest the emanations from the river should prove injurious to the patients, the condition of the water being very materially improved since the establishment of the main drainage system; the amount of deposit exposed to the atmosphere by the receding tide is also reduced to a minimum now that the water is confined to a narrow channel between two solid walls of granite. These foundations have taken upwards of twelve months to construct; they have, with the exception of the School building, been recently completed at a probable outlay of about £40,000. The ground is now in the hands of Messrs. Perry, the contractors for the Hospital, who are making rapid progress with the basements.

The principal entrance to the Hospital will be in the centre of the building, opening into Palace New-road. A handsome flight of steps will conduct to a spacious entrance-hall, above which will be the chapel. In this block there will be the steward's offices and rooms for resident Medical officers. The Hospital will consist in all of eight blocks, the first of which, or that nearest to Westminster-bridge, will be called the administrative block, and will be devoted to offices for general management and control; part of it will be fitted up as a treasurer's residence, with a separate approach from Westminster-bridge. The pavilions are placed at a distance of 125 feet from each other; the centre court, or that corresponding to the front of the entrance-hall and chapel, will be increased to 200 feet. There will be accommodation between the second and third blocks for the Nightingale Training Institution. The last block is for the Medical school, and will be built on an entirely different plan. It is situated at the extreme end of the building, close to Lambeth Palace, and separated from the adjacent block by a wider interval. The museum, library, and lecture theatres will be in this block. The six central pavilions comprise the Hospital proper. They will all be built on the same plan, though slightly varying in detail. Each will be so constructed as to constitute a complete miniature Hospital, with separate kitchens, linen-room, etc., so that in the event of Hospital fever, erysipelas, or other contagious malady occurring in one block, screens can be drawn across the corridors, and the intervening sashes removed from the windows. Each ward occupies the entire width of the building, so that there will be ample light and ventilation. The length of each ward is 120 feet and the width 28 feet; there will be a cubic space of 1800 feet for each patient. The windows are arranged alternately with the beds. The end lights communicate with the external balconies towards the river, where patients will be allowed to sit in fine weather. Small wards for two beds are provided in each block for the reception of special cases. The lavatories, water closets, etc., are cut off from the ward by intercepting lobbies. There will be lifts to each ward. This description does not apply to block No. 7, for contagious diseases, where there will be a central staircase, with two wards on each flat. The blocks will be connected by a long corridor, extending from one end of the building to the other. At the back of the corridor, though connected with it, will be a number of low buildings, corresponding to the blocks in front; these are intended to be used as waiting-rooms, dispensary department, etc. Buildings will be erected on this side of the corridor between the larger blocks, corresponding to the open spaces in front, to be used as operating theatres and officers' residences.

The Queen, who has graciously consented to lay the foundation-stone, is expected to arrive at Stangate by half-past eleven on Wednesday morning. Her Majesty, accompanied by the principal members of the Royal Family, will be met at the entrance to the building by the President, Sir John Musgrove, Bart., and the Treasurer, Francis Hicks, Esq., who, with a deputation of governors, representatives of the Medical staff and the architect, will conduct the royal party along a covered approach to the spacious pavilion now in course of erection upon the site of the proposed Hospital chapel, where the foundation-stone is to be laid. On the east side of the pavilion a dais is being erected; in the centre of the building is the spot whereon the stone will be laid. Seats are arranged in a horseshoe shape around to accommodate nearly 3000 people.

We may congratulate the authorities and Mr. Henry Currey, the architect, upon their good fortune in obtaining the consent of the Queen to lay the first stone of the new Hospital, for we believe that this is the first occasion, since the lamented death of the Prince Consort, that her Majesty has been willing to appear publicly in London to inaugurate the commencement of a charitable institution.

ARMY SERVICE FROM THE PRIVATE SOLDIER'S VIEW.

We may direct our readers' attention to a contribution in the last number of Mr. Anthony Trollope's magazine, the *New St. Paul's*. It is headed, "The private soldier as he is," and a very smartly written article it is—so well written indeed, that we venture to doubt whether it could have entirely emanated from "A Dragoon on Furlough." If it really be what it pretends, however, the private soldier must be quite out of his sphere among the rank and file of our army, and we can quite understand that the life of a common soldier is eminently distasteful to him.

He takes the circular recently issued by the Adjutant-General on "the advantages given to young men who serve her Majesty as soldiers" as the text on which he takes up his parable, and there is a good deal of wisdom and truth in what he says. Take the subject of rations. He is in accordance with what we have heard army Surgeons declare—viz., that the insufficiency of the present ration led young and growing men to supplement it by having recourse to beer and spirits.

"The mischief," he says, "has always been that the question as regards sufficiency or the reverse has invariably been addressed to old soldiers. Their reply is always in the affirmative, for the double reason that they hanker after more money rather than more food, with a shrewd eye to beer; and that the existing ration has really, through custom, become enough for them. If the recruit were questioned, he would give another answer. Where does the greater part of his pay go for the first year after he joins? To the canteen, to buy bread and cheese and other substantials. In process of time, however, probably under able tuition, he finds out that a penny spent in beer satisfies the appetite very nearly as well as twopence invested in bread and cheese; and by-and-by he comes to invest all his spare pence in beer, when the ration becomes quite sufficient for him."

We must, however, remark that the authorities had to attract as many men into the army as they could, and they had to effect this in the most economical way to the state. The soldier would, no doubt, have preferred both the extra pay and extra food; but the first was deemed the most attractive bait, and the soldier can, if he likes, procure with it what additional food he desires.

Our author next passes to the subject of lodging in a barrack-room, and says there is ample scope for making these more comfortable.

"It is almost always overcrowded; except in new barracks, the ventilation is uniformly bad; where there is no gas, the lighting is wretched in the extreme; the allowance of fuel is far from liberal; and it might be a question whether the barrack department might not accord a suitable supply of crockeryware, instead of leaving the troops to the casual offerings of the old women who collect the scraps and potato-peelings for pig-feeding purposes. These questions, however, and others are blinked with no little skill by the off-hand statement in the article referred to."

We agree with the writer in the main, but then there comes the question of finance. You cannot hope to provide separate rooms for every soldier, and efforts are being made to erect reading and recreation rooms in connexion with barracks. It would be impossible to provide the funds for these everywhere and at once; the work must be spread over some years. In the matter of lighting and fuel, there is room for improvement. A man of our author's stamp and mental calibre no doubt would desire, and ought to have, good crockery; but crockery breaks, and who is to replace the breakages? Troops are constantly moving from place to place, and if there be one thing more distasteful than another to the soldier, it is to be placed under "stoppages" for barrack damages.

On the subject of promotion to the rank of non-commissioned officer, the sedulous system of abject toadyism which, he says, exists, and the way in which a worthless man of good connexions who has enlisted can influence an adjutant by judicious presents of game, etc., we think he writes in a tone of exaggeration. We do not believe in these things unless as very exceptional occurrences, but we think his remarks on the system pursued in the Guards of competitive examinations for the rank of non-commissioned officer, for which any man of good character may enter, judicious; particularly as he would combine that system with one giving a discretionary power to the commanding officer to promote within certain defined limits. What he says about the promotion of a man from the ranks to that of a commissioned officer is unquestionably true. It often does put the man in a false position, and is the reverse of a boon. We suppose the purchase system, however, is doomed when a reformed parliament shall occupy the place of power; and what change this will make in the matter we may leave for time to decide. But we now approach the subject which will be most interesting to Medical officers, and we shall allow our dragoon on furlough to speak for himself.

"'When sick, he has good Medical advice, with every comfort.' On this point there is room for considerable divergence of opinion. That within the last ten years there has been a marked amelioration in the sanitary arrangements, and in the nursing and diet departments of military Hospitals, is happily beyond question. But it is matter for grave doubt whether the skill of the rank and file of the army Medical officers has improved in the due ratio corresponding to the advance of Medical science in the civilian world. It may be well to write plainly on this matter. A private soldier is hardly in a position to generalise on such a topic as this; and I shall feel surer of my ground if I write solely of what has come under my own personal observation. So far then as this extends during a lengthened period of service, my experience of army Surgeons prompts me to divide them into four classes. First, able but careless men. Secondly, plodding careful men, who are obsolete and incapable. Thirdly, incapables, who unite carelessness with incapacity. Fourthly, able men, who are likewise careful and earnest—and this last class form a minority as compared with any of the others. Perhaps the simplest way to illustrate the several peculiarities of these various classes is to detail a case or two of which I am personally cognisant, and in corroboration of which I can adduce proof."

He proceeds to illustrate and enforce his position by an appeal to occurrences coming within his own personal knowledge. These our readers may peruse for themselves, as they are too long for extract. Let it suffice that cases are brought forward to show carelessness, ignorance, or incapacity on the part of the army Surgeons having charge of them, and they amount to three in number—one, a case of badly treated or untreated stricture of the urethra; the second a case of dislocation mistaken for sprain; and the third a case of skin disease cured at the suggestion of the patient himself by the use of arsenic. Now, it is always easy to state occurrences of this kind. They may be accurate or false, or highly exaggerated, or they may be the result of excusable mistake, or the reverse. Unless one possesses an exact personal knowledge of the whole history, it is next to impossible to arrive at a just verdict. A case might have presented at its commencement difficulties in the way of diagnosis, such as had passed away when examined by another Surgeon at a subsequent date. It is absurd, however, to suppose that army Surgeons are exceptional in this matter. Cases of mistaken diagnosis are not uncommon among men in civil life, and for the matter of that at our large metropolitan Hospitals. The writer must have occasionally read of instances of the kind in the public papers.

We think, however, that the system pursued in the public services is open to improvement. A young man having been

specially educated to diagnose and treat disease as his first and paramount duty, finds in the army that the exercise of purely professional qualifications is not by any means the whole or the most direct means to advancement in the service. The discipline of his Hospital, its cleanliness, the correct keeping of official returns, and the discharge of official duties, appearance at parade, rifle practice, and, as he gets on in life, questions involving finance and administration, are matters of which all can judge, and by which his success or failure in the department in a great degree depends. And to a certain extent it must be so as long as the War Office and Horse Guards are the head centres from which promotion and administration issue.

We do not say, and we are far from believing, that our author has formed a correct estimate: indeed it must be an incorrect one as regards any comparison between members of the department and those engaged in civil practice, and for this reason. All those who enter for the competitive examination at Chelsea must first of all possess a Medical and Surgical diploma: they are then subjected to the ordeal of an entrance examination, afterwards sent to Netley, where they undergo a practical course of instruction, and finally pass another examination before being gazetted, and before obtaining their commissions as Surgeons they have to pass another. We do not see how the authorities could further protect the service against ignorance and incapacity. Human nature is like animal nature, and where the struggle for life is less keen, efforts in the way of competition will be less strenuous.

Of one thing our private may be assured, and it is that the professors at Netley are thoroughly anxious to send forth good and skilful men from their school.

If the rank and file of the British army are only as well educated as this dragoon, the army Medical officer will, in the discharge of his duties, be subjected to far keener criticism than his *confrère* in civil life.

THE WEEK.

TOPICS OF THE DAY.

The approach of the annual election of Fellows at the Royal College of Physicians offers the best opportunity for repeating advice which we have on various occasions thought it a public duty to offer the College on this subject. It is now a time-honoured complaint that the lists of new Fellows which are submitted by the Council to the general body of Fellows for election at the June *Comitia Majora* are formed on no comprehensible principle of selection or exclusion. The by-law which enacts that all "members of at least four years' standing, who have distinguished themselves in the practice of Medicine, or in the pursuit of Medical or general science or literature," shall be eligible for the Fellowship, has been, in practice, too often made secondary to a recognition by the Council of claims of a merely personal or educational character. Year after year most able and distinguished Physicians, second to none in the practice of Medicine or in a knowledge of Medical science, have been passed over, whilst their juniors, men who can have given no evidence of fitness beyond the accident of personal connexions, the possession of a particular degree, or the good fortune of having stepped into an Hospital appointment at an early age, have been selected. The course pursued by the Council of the College has already produced wide-spread discontent amongst the Members and in the Profession outside, and has undoubtedly affected injuriously the material interests of the College itself. We are most desirous that the College should grow in influence and popularity, and that all Physicians practising in England should be affiliated to it, but it is certain that this result can only be effected and maintained by a liberal and just policy in this matter, founded upon the by-law which we have already quoted.

The chief objection which can be raised to the Medical Practitioners' (Colonies) Bill as at present amended is that it will almost inevitably lead to an interchange of the right of Medical registration between the colonies and the United Kingdom. If British Practitioners have the power to claim registration in the colonies, colonial Practitioners, as time goes on, will assuredly assert the right to be placed on the Imperial Register. As a question of abstract justice, we think that the demand could hardly be resisted, although, practically, the concession on the one side would be almost infinitesimal, compared with the concession on the other. But, looking at the claims of the colonists in the most liberal spirit, the fact remains that it is practically impossible the General Council of Medical Education and Registration can exercise any real influence or supervision over colonial examinations and education, and that, therefore, there must be a danger that a large element of semi-educated Practitioners might be imported from the colonies into the Profession at home. The present Bill is undoubtedly very much improved by the omission of any retrospective clause; the vested interests of all who have already registered will be respected. But inasmuch as it gives the colonial legislatures the power to enforce a second registration on British Practitioners, at the same time entitling the latter to demand it, it seems to us too probable that the General Council will be obliged by some future Government to grant registration to colonial Practitioners on the same terms. If it be true, as is reported, that this Bill, although brought into Parliament by the Duke of Buckingham, is the workmanship of the Home Office, we shall not be surprised if such a concession to the colonies be made the price of Government support to the long-delayed Medical Amendment Act when it comes before Parliament.

The probably successful effort of the St. Andrews Medical graduates to obtain the franchise and admission to the General Council of their University, seems to have roused the Land o' Cakes frae Maidenkirk to John o' Groats. In addition to the symptoms of opposition we have from time to time noted, we now hear that the University of Glasgow are petitioning against the Doctors, though on what special ground it is difficult to see, as the Scottish Reform Bill does not propose to affiliate the University of St. Andrews for electioneering purposes to that of Glasgow, but to Edinburgh. We think that the Medical graduates may fairly retort on the ingratitude of the University authorities who gladly absorbed the thousands which the Doctors poured into the coffers of their impoverished University, in return for parchments, the social value of which it becomes now the object of those that granted them to disparage. The fact is that if degrees obtained without residence at St. Andrews and Aberdeen are only a shadow of what they pretend to be, they represent a very high educational claim to the franchise. If they are not, it reflects the greatest disgrace on the Scottish Universities, and would furnish a capital argument against granting these bodies representatives at all. It is said that the opposition chiefly comes from the clerical graduates, who are jealous of Medical influence.

Professor Henry E. Roscoe's first of a course of lectures on spectrum analysis, delivered at Apothecaries' Hall on Saturday last, brought together a large audience. The lecture, mainly an elementary one, was on the composition of white light, a subject which was illustrated by experiments showing the analysis and synthesis of the luminous ray, and the existence of thermal and chemical rays. The subject of the application of the spectrum to chemical analysis will be commenced in the second lecture.

In accordance with our expectations, we hear that the Court of Examiners of the Apothecaries' Society have determined not to submit students who have passed the primary examination at the Royal College of Surgeons to a written examination in anatomy and physiology, although the Court

reserves to itself the right of examining such students orally in anatomy bearing on the practice of Medicine and in physiology. For the reasons we stated last week, we think that this step will meet with the approval of the General Medical Council and of the Profession. The examinations which a Medical student has to pass are already more numerous than those admitting to any other profession, and no advantage can be obtained by demanding proofs at different examining boards of the possession of the same knowledge. We are glad, however, to find that the Court of Examiners at the Hall will continue to examine in Medical Anatomy and Physiology. Rightly, the anatomy which is valued most by Surgeons is Surgical anatomy, and a *viva voce* examination in Medical and histological anatomy and in the functions of the body may sometimes supplement, but need not in any way clash with, the excellent examination in descriptive anatomy to which the students will have been already subjected at the College of Surgeons. We believe that the Royal College of Physicians, while accepting the anatomical examination of the College of Surgeons, reserve to themselves a similar right.

The Court of Queen's Bench have granted Dr. Hardwicke a rule *nisi* for a *quo warranto* to test the validity of the recent election of coroner for West Middlesex. It will be remembered that Dr. Hardwicke disputes the validity of Dr. Diplock's election on the ground that the majority the latter obtained was largely made up of grave-holders claiming to vote as freeholders, and of "free watermen." At the hearing of the case before the judges sitting in banco these claims furnished no little amusement. The Lord Chief Justice observed in reference to the grave-holders that it was a case at all events of land "held in mortmain," and that as to the free watermen he presumed they claimed in respect of "land covered with water."

An effort made by the British Medical Association to obtain the support of the Poor-law Board for the proposed appointment of additional Medical Inspectors for the provincial workhouses does not seem to have been attended with much success. A deputation waited on the Earl of Devon on Thursday, April 30, for the purpose of urging the benefits to accrue from increased Medical inspection, when his Lordship, whilst promising to lay the views of the deputation before the committee on the Poor Relief Bill, said frankly he could not promise to advocate those views. It is not, therefore, probable that any such scheme will be adopted at present. For our own parts we think that the first necessary step to be taken in Poor-law Medical reform is to increase the salaries of the Poor-law Medical officers throughout the kingdom, and to place them on a more independent footing in relation to the local authorities. Were this done, and a moderate amount of money spent, where really necessary, in replacing buildings which are proved to have become unfit for the reception of the sick, we think the country might reasonably pause before engaging in larger schemes of Workhouse Infirmary reform.

The changes proposed by the Cambridge Board of Medical Studies in the requirements for the M.D. degree were discussed in the Senate on May 2. As they received the support of Dr. Paget and Professor Humphry, they will, no doubt, be accepted by the University. The requirement from the Bachelor of Medicine, who is a candidate for the Doctorate, of an extempore essay on some subject of practical Medicine, pathology, or State Medicine, is the chief innovation contemplated.

In the case of Lyon *v.* Home, Vice-Chancellor Giffard has reserved his judgment until an early day next term. The only redeeming point in the case seems to us that it will throw a good deal of Mrs. Lyon's money into the hands of some deserving lawyers.

A death, resulting from somnambulism, is reported from Yealmpton, Devon. A man named Gray was in the habit of walking in his sleep, and whilst doing so on the night of Saturday last he fell down a staircase and met with injuries which ended fatally soon after.

THE ICHNEUMON AND THE COBRA.

It is so generally believed that the bite of the cobra is fatal to all animals except the *ichneumon* or mungoose, which is believed to possess in its blood, or to have some capacity for discovering, an antidote to the poison, that we are glad to find some exact experiments on the point. Surgeon-Major C. R. Francis, writing in the *Indian Medical Gazette* for April, details the results of some very interesting inquiries recently conducted by him. These results show in the most conclusive manner that the ichneumon is not possessed of any special immunity from the effects of the cobra's poison, and that, since it dies almost immediately after it has been bitten, its supposed instinct for the discovery of an unknown(!) herb is equally a delusion. Surgeon-Major Francis, who had collected seven lively cobras for experimentation, thus describes the results:—

"Before commencing the experiment the cobra was *tested*, a supply of fowls and small birds being retained for the purpose. In each case the tested bird died shortly after being bitten in the usual way. It faltered in its gait, limped, sank on the ground, became lethargic, and then fell into convulsions, in which it was carried off. Sufficient time was then allowed for a copious re-secretion of the poison, and the animal to be bitten was presented to the cobra. As a rule, the latter would not voluntarily bite its victim; and it became necessary to force the poison-fangs into some fleshy part of the latter. In the case of the mungoose the inner part of the thigh was selected. The operation was most successfully performed in each case by two snake-charmers. Three mungooses were operated upon, and *they all died*, at intervals varying from fifteen minutes to six hours each, in precisely the same way."

A positive result of this kind is worth thousands of negative ones, since it really decides the question definitively. We may state that two other interesting facts have been arrived at by Surgeon-Major Francis:—(1) That harmless snakes are just as liable to the poisonous effects of the cobra's bite as are other animals; and (2) that the cobra itself is the only creature which appears to be uninfluenced by the poison. This last would appear to be demonstrated by an experiment in which two cobras were made to mutually wound each other without any apparent result beyond temporary inconvenience.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

The Insecta.

The various modifications of the appendages of the head in this class have already been described. The *thorax* presents three somites—the anterior being termed the pro-thorax, the middle the meso-thorax, and the posterior the meta-thorax. They present great differences, according to the development of the legs and wings. In wingless insects each thoracic somite has only one pair of appendages. In those that have wings, the wings are derived from the tergal surface, and correspond with the carapace of the Crustacea, if with anything. The wings are always connected with the two posterior segments of the thorax. In the Diptera there are wings only on the anterior of these two segments, and there are little prominences or *balanciers* in the place of the posterior wings on the upper surface of the meta-thorax. The Strepsiptera are the only known group possessing *one* pair of wings, which have these attached to the meta-thorax. Wings are in all cases prolongations of integument from the dorsal surface; they all have a framework penetrated by tracheæ. Wings are either all similar, as in the Lepidoptera, etc., or the anterior and posterior pair are dissimilar, and in that case the anterior are harder, and, as in the beetles, cease to have the character or perform the function of wings. These are the so-called

elytra or wing-cases; they are not used in flight. The *abdomen* always consists primarily of eleven separate somites. It sometimes happens that the anterior become coalescent with the thorax, and may be so changed as not to be recognisable. The male generative aperture is generally found on the sternal surface of the tenth abdominal somite, and the female generative apertures are two somites further forwards, generally on the eighth abdominal sterna. The two somites between the anus and genital aperture in the female undergo great modifications, being modified into stings or into ovipositors, and in the male the tenth abdominal sterna is often modified into a complex apparatus subservient to copulation. At the base of the stings, where they exist, there is a gland which secretes a fluid usually containing formic acid.

As to the alimentary organs of insects. The mouth is furnished with salivary glands; those in the cockroach are very large, and the duct is connected with a pyriform recess in which the salvary fluid accumulates just as bile does in the gall-bladder. This fluid is needed to lubricate the hard matters on which these cockroaches feed. The gullet leads into a dilated crop, or the crop may be (as in the moth) an especial dilatation on the side of the gullet, or (as in the fly) it may be a long-stalked bag. Then follows a gizzard, or thick-walled muscular stomach, sometimes provided with strong teeth. The gizzard is succeeded by the digestive stomach, or chylific ventricle, as it is called: this is often covered externally with villous processes. In this stomach proper digestion goes on. Following this is the *small* intestine, and then the *large* intestine. At the point where the small intestine joins the chylific ventricle, a number of small tubular glands, varying much in development, open. These are the *Malpighian* vessels. They are lined by a covering of epithelium, and secrete a true urinary substance. No true hepatic organs have yet been discovered in insects.

The circulatory system is like that in Myriapoda and in the spiders, but the arterial system is less developed. The heart lies on the dorsal side of the alimentary canal; it consists of eight chambers, each having lateral valvular openings, and it is surrounded by a pericardial cavity; it ends at each extremity in an arterial tube. The lacunal circulation is more developed in insects than in Myriapoda or Arachnida. Next as to the *respiratory* organs; on the sides of the body, for its whole length, pairs of stigmata, one pair for each somite, lead into tubes strengthened by a spirally coiled chitinous substance. These stigmata are furnished with a valvular apparatus to which voluntary muscular fibres are attached, so that they can be closed at the will of the animal. They correspond closely to the glottis of higher animals. By this means the insect is able to live securely for a long time in noxious vapours. The tracheæ ramify with great minuteness, more so even than the capillaries in ourselves. Their ultimate ramifications penetrate between the different muscular fibres and the elements of the tissues; so that, in these animals, "air is taken to the blood, not blood to the air." In some insects which have great capacities for flight, these tracheæ are, in certain parts, developed into large air-sacs, thus rendering the body specifically lighter, and serving as a reservoir of air for respiratory purposes. The respiratory function in insects is very active, and much heat is thereby developed; the heat disengaged is found to be proportionate to the muscular activity.

It is a matter of the commonest observation that in many insects, such as the grasshopper, crickets, mosquitos, bees, flies, etc., *sounds* accompany the various actions of the body. Opinions have differed as to the cause of these sounds. Two agencies appear to be concerned in producing them. In some instances they are caused by the passage of air through the respiratory apertures, and in others by the scraping together of hard surfaces. In the crickets, grasshoppers, and all the Orthoptera, the sound emitted is entirely *scraping*. Two of the wings, in some cases, have sharp serrated edges, which can be rubbed against each other. In the grasshopper, the posterior legs are provided with scratching appendages, which can be rubbed on the hinder wings. The curious ticking sound spoken of as the *death-watch* is caused by the hammering of the jaws of an insect against the wood in which it lies. In many cases, however, this scraping has only a small share in producing the sounds heard—for example, in the buzzing of the bee, much of the noise is produced by the rapid action of the wings. But, in the case of the fly, the wings may be cut off, and the head and the abdomen, and yet the noise is still produced; but if the orifices of the tracheæ on the sides of the thorax be stopped, then the buzzing ceases. In such insects the stigmatic lips present some such arrangement as the lips of the glottis: they either overlap or are capable of perfect parallelism, and they are moved by an appendage connected, in the blowfly, with the *balanciers*. By the compression of the body, air is driven out through the stigmatic apertures, and the membrane thus situated is set into vibrations, so that a true voice, like our own, is produced. It is, however, difficult to understand how, when the fly's head and abdomen are cut off, air can still be driven with sufficient force through the stigmata; perhaps this membrane is moved forwards and backwards with such extreme rapidity as to set up vibrations in the air.

The *nervous* system of insects is substantially the same as in other Arthropoda. It commonly happens that the brain (or cephalic ganglia) is somewhat enlarged, and, though there are primarily a pair of ganglia to each somite, these may become more or less coalesced. There are also visceral nerves connected with the cephalic ganglia.

The *muscles* of all insects are of the *striped* variety, even those in the walls of the hollow viscera—as in the intestine. The mode of motion of the limbs is the same as in other Arthropoda; but in the movement of the wings the apparatus is very different from that of birds. In only one group—that of the dragonflies, which have such wonderful power of flight—are the wings moved by the *direct* action of muscles upon them. As a rule, the wings are set in action secondarily, and it is the dorsal surface of the thoracic segment, to which the wings are attached, that is primarily acted on.

The *eyes* are simple or compound. Their structure is substantially that of the crustacean eye already described. The facets are most commonly hexagonal. As to the other organs of sense in insects—they *hear* with great acuteness, they *smell* with great ease, their sense of *touch* and *taste* is delicate, and they have probably other senses of which we have no conception. But the seats of these senses are not clearly made out.

With regard to the auditory organs, the only unquestionable ones we know are found in extremely strange positions; these are in the locust and the grasshopper. In the locust the *ear* is found in the tibia of the forelegs, and in the grasshopper it is found in the hinder part of the meta-thorax.

If the skin of the locust be carefully examined, the integument at one part of the inner surface will be found thinned over a large oval space. This serves as a large tympanic membrane. In section, two great tracheæ are seen to come down into the leg and spread out against the tympanic membrane. The space in front of the two bags thus formed is partitioned off, and contains a fluid. The great nerve of the leg gives off a considerable branch, which spreads out on the walls of this sac, and rod-like processes are connected with its terminal filaments, as in the cochlea of the vertebrate ear. A similar structure is found in the meta-thorax of the grasshopper.

Dr. Hicks, in examining the antennæ of insects, has worked out some observations that had previously been made with reference to certain minute depressions which are always seen over a great part of their surface. They are found to have the following structure:—They have a rather thin wall covering in a simple depression, [illegible] more or less subdivided

or ramified sac is found containing fluid, and branches of the antennary nerves are distributed to the base of each sac. These are probably auditory organs. The function of *reproduction* in insects, though extremely different in detail, is very similar in principle in all cases. The female of the cockroach affords a good type. It has a vagina which divides into two oviducts, and these subdivide into eight ovarian tubes which are provided with a number of dilatations. These are joined together at their upper ends by a common ligament, which is connected with the under surface of the heart. The function of this ligament is not known. The tubuli contain ova in all stages of development. Certain *accessory* organs are very generally present. 1. There is a *spermatheca*, in which the seminal fluid ejected in copulation is stored up. 2. *Colleterial* glands of very different size and extent, which secrete a viscid fluid serving to connect the ova together and to attach them to proper objects.

In the *male* the spermatozoa are formed in testicular cæca, and are carried away by a vas deferens which opens on the tenth abdominal somite. In all perfect insects there is a process of copulation, and no normal insect is hermaphrodite. The semen is passed into the spermatheca, and the eggs are fecundated in their passage into the vagina. The egg is *formed* and enclosed in a shell before it is fecundated. There is, however, a small hole or *micropyle* left in the egg-shell, and it is through this opening that the spermatozoa enter the ova.

The great majority of insects deposit their eggs, which are hatched outside the body; but in the flesh-fly the eggs are hatched inside the body. In some few—the tick of the sheep, for example—the development of the young takes place within the parent in a dilatation of the vagina, and they pass through the larval stage in that situation. These are termed *pupiferous* insects. They are the only insects which present a kind of analogy with those higher animals which possess milk-secreting glands, as they have glands connected with the vagina which secrete a milky fluid destined to nourish the young during the larval period. As to *development* in the first stage the yolk undergoes only partial division, the ultimate result being the production of a vermiform creature, the larva, which may or may not possess appendages. Insects are said to undergo or *not* to undergo a *metamorphosis*. The sense in which this term is used is as follows:—If the insect passes, by slow and gradual stages, from one form to another, and is active during the whole of its life, it is said to undergo *no* metamorphosis; but if in this process of development or transformation there is a *resting* stage, at the end of which the creature suddenly appears in a different form, then it is said to undergo a metamorphosis. The difference is really very subsidiary, and simply depends upon whether the creature *rests* or not during a certain period of its development. The cockroach, for instance, is at no period still; it has a minute six-legged larva very like the parent, but devoid of wings; it eats voraciously, grows rapidly, and casts its skin at regular intervals; each moulting corresponds with an approach to the adult form. At length the wings begin to appear; this is really the pupa stage, but it goes on always changing its skin till it reaches the adult generative stage. So that this is really a metamorphosis, only it is a very gradual one. But in the butterfly or the gnat there is a very different state of affairs. The creature when it is hatched is a caterpillar with a *masticating* mouth, three pairs of true legs, and four pairs of false ones; this is the *larva*. It has a thick, straight alimentary canal, a simple chain of ganglia, and is not the least like the adult insect. After growing and shedding its skin a number of times, it finally becomes quiet, rudiments of legs and wings appear under the skin, the skin becomes hard and brown, and then the larva is converted into the chrysalis or pupa. Now more remarkable changes take place in the insect's organism. The generative organs, which were undeveloped and small in the larval condition, become developed; the condition of the alimentary canal is altered; the different somites become differentiated; legs and wings become developed; all parts of the mouth pass into a new form, from the masticating mouth of the larva to the sucking mouth of the imago state; eventually it bursts its integument, and passes out as a male or female moth or butterfly. The common view of this is that it is a most complete case of metamorphosis. But in reality it is merely a process of growth; all the organs except the skins which have been cast have simply undergone continual change and modelling; nothing new has been added. But a still more wonderful series of changes occurs in the case of the common house-fly. The egg gives rise to a footless larva with parts of mouth rudimentary; it is commonly known as a maggot; it feeds enormously, grows rapidly, and in ten days or so is fit to become changed into the form of the parent. This change is effected in the following manner:—The last skin becomes hard and horny, and brittle like glass; beneath it a most extraordinary change takes place. The body is *resolved into a fluid*, and if the case be now broken, all the alimentary canal, all the parts of the body except the integument of the abdominal somites, are converted into a semi-fluid mass. But even in the body of the larva are found the foundations of the new parts. Masses of formative tissue, twelve in number, are found in the thorax and head; these are called the *imaginal discs*, because out of these the imago is built up. These discs grow rapidly, give rise to legs and wings, to eye in the head, and, growing towards one another, build up the parts of the head and thorax. This coalesces with the remains of the integument, and then the alimentary canal is developed. This change is unknown in any other form of insect; it is not found except in a few of the Diptera.

FROM ABROAD.—DELIRIUM TREMENS IN RUSSIA—APOLOGY FOR MEDICAL STUDENTS.

Dr. Hermann read recently at the St. Petersburg Medical Society an interesting paper on the great prevalence of acute alcoholism in Russia, adverting to the great and increasing consumption of brandy in that country. The lower class, indeed, consume no wine and but little beer, and an enormous quantity of brandy. The monopoly in the sale of this article which had subsisted for 300 years in the provinces of Great Russia was abolished in 1863. A moderate tax applied to the whole kingdom has rendered brandy dearer in the formerly privileged provinces of Finland and East Russia, while it has lessened its price in those of Great Russia. The result has been that, while in the former the consumption has diminished and many brandy shops have been closed, in the latter these, great and small, have sprung up in every corner—drunkenness increasing in proportion. Dr. Hermann gives a tabular view of the rapidly increasing consumption of brandy during the century 1749-1859, although the population has increased but slowly. The net revenue derived from brandy in the provinces of Great Russia in 1749 was only 1,786,955 silver roubles (a rouble is now 3s. 1½d.), but in 1859 this had risen to 74,171,015 roubles. During this interval some considerable fluctuations were produced by the agency of wars, scarcity, the price of bread, and changes in the mode of regulating the monopoly. The statistical returns since 1859 are defective, which is the more to be regretted as the adoption of freedom in the sale has altered the conditions. In St. Petersburg, for example, the brandy shops have increased almost sevenfold, and exist now in the proportion of 1 shop for every 293 souls. In the budget for 1866 the sum set down for the brandy tax for the entire empire is 115,500,000 silver roubles. That such an increase in the sale of brandy has been attended by most baneful effects can admit of no doubt, and attempts have been made to limit it both by the Government and by individuals; but these have all yielded to the resistance of the masses and the danger of damaging the revenue.

One consequence of this increased consumption of brandy is the increase of the number of cases of acute delirium tremens admitted into the St. Petersburg Hospitals. During the five years 1861-5 there were treated in five of these institutions as many as 3241 cases—viz., 2721 males, and 420 females. The mortality from this cause varied in the different Hospitals from 16·02 to 7·73 per cent. After the trade was thrown open, in 1863, the frequency of the disease was found to be doubled in some Hospitals, and in others three or fourfold. In speaking of the treatment of acute alcoholismus, the author observes that recent cases may be often successfully treated by mere abstinence, quietude, and cleansing out of the *primæ viæ;* but that where the characteristic delirium sets in severely, the patient is best removed from his habitua surroundings to a Hospital, the separation from these alone constituting a part of the cure. In favourable cases the critical sleep will come on most frequently on the seventh day, and seldom on the fifth, but in quite recent cases as early as the third or fourth. Dr. Hermann, in the course of a long Hospital practice, has tried every means of treatment that has been recommended, and has come to the conclusion that the disease can be actually cured only in a few cases, moderating or abridging the attack being all that in most can be accomplished. He thinks, too, that it requires a certain time to run its course, and that the attempt to cut it short by heroic doses of powerful remedies is often mischievous. Opium is of course the most powerful sedative, and he usually gives this in one-grain doses from four to six times a day, doubling the dose at night; and these doses can be continued with advantage in most cases for several days. When, however, they have been continued for some days without benefit, and the patient from noisy is passing into muttering delirium, with coma threatening, the stimuli must be substituted for opium. The author does not approve of digitalis, and thinks little of the use of chloroform, and still less of antimony.

We transcribe a passage of the address which M. Gallard, one of the Secretaries, delivered at the recent anniversary meeting of the French Medical Association. He is speaking of the project entertained by M. Tardieu, now President of the Association, while he was Dean of the Faculty, of inducing Medical students to join this body. It is among the newly made Doctors, M. Gallard observes, that the greatest number of recruits and the greatest activity are found, and he believes their sympathetic assistance should be sought even before they have taken their degrees. It is to be recollected that this Association is not merely a benevolent institution for succouring the distressed, in which the young might reasonably be expected to take less interest than those whose careers are more advanced; but it professes to adjudicate in a friendly manner upon differences arising amongst its members, and watches efficiently over their interests in their legal relations, as in the suppression of illegal practice, the recovery or adjustment of disputed fees, and the defence of Medical responsibility when unjustly assailed. On several points, owing to the exertions of the legal advisers of the Association, jurisprudence has been greatly modified in the interest of the Practitioner. This is the passage we referred to:—

"These young men have been a good deal distrusted of late, and I am constrained to admit that sometimes they somewhat too well justify their detractors; but in spite of this I cannot participate in the prejudices of which they have been the object. The defects with which they have been reproached are almost always but the exaggeration of excellent qualities, and truly our epoch would much stand in need of being condoled with if we were reduced to no longer see in it any of the passions boiling up in these hearts and these heads of twenty. Years, with the anxieties they bring with them, will, alas! come soon enough to calm these juvenile ardours; and it is not for us to despair of those who would not have any great trouble in discovering in our own antecedents a turbulence at least equal to that about which we are now complaining. At the worst, this turbulence soon passes away, and if it is exhibited somewhat too noisily during the early period of studentship by those who, impatient for liberty, resort to our amphitheatres on their emancipation from the lycées, we find it readily calming down in those who are admitted to the practice of the Hospitals. It is there, in fact, the student lays aside his character of schoolboy in beginning to assume that of the Physician. Is it because my position as a clinical teacher only brings me in contact with those who are about to take their degrees that I always find them calm, serious, and industrious, and guided by that deference and that respect for propriety which they have been accused to want? I cannot say. But when I see them so attentive, listening so earnestly to the words of the master they themselves have freely chosen, and then, with him, bend over the bed of the patient in search of a solution of one of those immense problems which are arising every instant before us—when I observe this ardour for work, this love of science, this search for the truth—I cannot help believing that behind those young brows, lighted up with intelligence and ripened by an early experience, are sheltered the future destinies of all that is dear to us, and especially those of our Association."

This passage was received with well-deserved applause by the seniors to whom it was addressed, for they could but feel that they had once been young and were now testifying that their own youthful escapades had not militated against their future social and Professional usefulness. In fact, in France, as with ourselves, the unrestrained liberty with which Medical students find themselves for a short time invested is seldom abused, and, after a few ebullitions, they pass on to constitute one of the most orderly and laborious of professions, the members of which may challenge comparison with any order of society as regards rectitude of conduct, propriety of demeanour, and public usefulness. A little temporary enthusiasm, even when misguided, may be well excused. A greater danger at the present day to young men thrown loose on large towns is the contracting low and vulgar habits which they may hereafter find difficulty in relinquishing.

PARLIAMENTARY.—DEATHS FROM SMALL-POX IN IRELAND CAUSED BY INOCULATION—MUNICIPAL CORPORATIONS FOR THE METROPOLIS—THE ARTISANS AND LABOURERS' DWELLINGS BILL.

On Tuesday, May 5, in the House of Commons,

Mr. Gregory asked the Chief Secretary for Ireland whether he was about to give instructions to the constabulary, in the case of deaths from small-pox caused by inoculation, to endeavour to procure an inquest to be held, in order, if possible, to obtain a conviction for manslaughter, or for an offence against the Vaccination Act.

The Earl of Mayo said the instructions given to the constabulary had been, in cases where deaths occurred under the circumstances referred to by the hon. member, to cause an inquest to be held. Those instructions, however, were confined to certain localities with regard to which information had been received. But if it were desired that the instructions should be made general he had no objection whatever to that course.

Mr. Mill brought in two Bills for the creation of Municipal Corporations within the metropolis. They propose that there shall be a municipality for each Parliamentary borough (the Corporation of London being preserved), all grouped round a central municipality, into which the Board of Works would be merged, and to which the management of the general affairs of the metropolis is to be committed.

On Wednesday, the Artisans and Labourers' Dwellings Bill was forwarded a stage.

INTERESTING PRESENTATION.—An unusual circumstance occurred at the College of Surgeons on the 5th inst., the first night of the *pass* examinations which have been going on in that institution during the present week, on which occasion twenty-four gentlemen presented themselves, *all* of whom, having acquitted themselves to the satisfaction of the Court, were duly admitted Members of the College; and on the following morning Mr. C. H. Joubert de la Ferté, of St. Mary's Hospital, one of the prosectors at the College, on calling for his diploma, presented the officials with white kid gloves in the names of those gentlemen who had passed with him.

MEDICAL NOTES ON PRISONS, PRISONERS, AND PUNISHMENTS.

THE CITY PRISONS.

No. II.—NEWGATE GAOL AND HOLLOWAY HOUSE OF CORRECTION.

Connected with Newgate as a place of detention for prisoners condemned to death, there are one or two points worthy of notice. The first is, the existence of a room termed the press-room, in which all the dread paraphernalia of capital punishment are kept, including the now useless executioner's axe. This room gets its name from the old and horrible system of torturing prisoners who refused to plead; they were placed flat on their backs, and a board, on which gradually increasing weights were deposited, was laid upon them. Thus they were kept, condemned to be fed with a few morsels of bread, seasoned by water from the nearest puddle, until death claimed his own. Even now the room is associated with a certain kind of torture, mental, it is true, and to the mind of some but slight, yet capable of giving rise to a breast pang. The press-room is situated on the side of the prison farthest from the condemned cells, and from the door out of which the murderer steps on to the scaffold, yet it is the custom to pinion him in that room, so that all the dreadful preparations for his execution are more prominently brought under his notice during this forward and backward journey than they would were he pinioned in his cell and led straight to the scaffold. Let us trust that this latter plan will in future be adopted. In the press-room are preserved, as curious relics of the past, Jack Shepherd's fetters, marvels of clumsiness, which readily explain how easily the celebrated prison-breaker made his way out of them.

At one time it was customary to give up the bodies of all executed criminals for dissection, but that rule has long ago been abrogated, and it is now the plan to sentence them to be buried in the unconsecrated ground within the gaol. In Newgate, the spot employed as the unhallowed burying-ground possesses a morbid kind of interest from the number of scoundrels who lie beneath. It is a sort of passage leading from the prison to the Old Bailey, along which prisoners walk to and from trial. It is bounded on the one side by a dead wall, and on the other by the prison, and being covered above with a sort of iron grating, the rogues have designated it, in their not unpicturesque language, the Birdcage-walk. On the wall at the head of each murderer his initials are carved, sometimes also with the date of his execution, and few catalogues of horrors can equal the narrative of the deeds of those who lie beneath, even as told by the cool and unconcerned warder.

Newgate being for the most part a house of detention, the prisoners are not clothed as those who have been convicted, being generally allowed to retain their own dresses, except these be excessively bad, when proper clothing is supplied. Their exercising yard is narrow, and, to increase the space available for walking, the inmates of the gaol are made to move in a sort of serpentine line, in consequence of which prisoners must frequently come in tolerably close contact with each other. This may allow opportunity of intercommunication, notwithstanding the strict watch kept over them; but it would also seem to permit certain other irregularities, judging by a regulation strenuously enforced. We were struck by observing every prisoner pass down the staircases and out into the exercising yard with his hands behind his back, and, on inquiring the meaning of this arrangement, the warder in attendance informed us that it was to prevent one picking another's pockets—which would seem to do away with the popular notion of honour being a current commodity among thieves.

Not very long ago a paper was published in one of our weekly periodicals professing to give an account of the detention of an innocent man in this prison, and of his treatment there. The writer, although evidently cognisant of the mode of life in Newgate, either looked through spectacles the reverse of rose-coloured, or was more roughly treated than we are willing to believe possible; certain internal facts in the narrative further incline us to look upon it as somewhat apocryphal. It is a good and wholesome rule that each prisoner shall keep himself and his belongings clean, and as no other labour is exacted from those under remand or previous to sentence, it cannot press heavily upon them. The writer referred to complained grievously of being compelled to [illegible] grounds for complaint. He also complained of the diet. Now it is not at all necessary that any one previous to trial should subsist on the prison dietary. They may have their food brought in from a recognised cook-shop, but very properly not by any one who may choose to bring it. The prison dietary is ample, although not greatly varied—the latter being its prime defect. It consists of one pint of oatmeal gruel and eight ounces of bread for breakfast, three ounces of cooked meat with half a pound of potatoes and eight ounces of bread for dinner four days in the week, each prisoner on the other three days being supplied with a pint of soup and eight ounces of bread. A very simple and grateful variation would be cocoa or coffee for breakfast on certain days of these. The prison regulations and a list of the food to which every man is entitled are suspended within each cell, and every prisoner has access to the governor, both directly and indirectly, should he have any complaint to make. The above diet, which is good and wholesome, is that ordinarily given to prisoners of the fourth class, those condemned to penal servitude being supplied with somewhat more nourishing food, and those who are sent to the county house of correction for a short period being furnished with one less nutritious. Prison offences and their punishments are peculiar, but the power of the governor to inflict the latter is very limited; he may cause the offender's diet to be curtailed (provided the Surgeon do not interpose), he may order him solitary confinement in his own cell or in the dark cells, with bread and water, for a period not exceeding three days, or he may keep the prisoner in irons during a period of less than twenty-four hours, but no other penalty can be exacted except by order of a magistrate. There do not appear to be many punishments inflicted at Newgate, for little is required from the prisoners beyond good behaviour. After sentence, each has a given quantity of oakum to pick every day, if not immediately removed either to a house of correction or a Government convict prison.

Not long ago a story was bruited abroad that the City authorities had determined to enlarge Newgate. It was immediately concluded that this meant the enlargement of the space within the walls; but, as we have already pointed out, there is a considerable portion of the building constructed on the old association system entirely unoccupied, and were any additions to be made to the prison the first step would be to turn this to good account. It was then urged that Newgate was unsightly, and that it ought to be removed into the country. But the purposes to which Newgate is devoted must not be overlooked. It is not a house of correction; it is merely the county gaol, and as a house of detention must be near the Central Criminal Court. The prime defect in Newgate is its narrow and confined airing grounds; could these be enlarged, there could be no fault of any importance found with the place. Should any one desire to see a prison in which the old and the new systems are well contrasted, as well as one which figures in the history of our country, let him visit Newgate. Our next visit shall be to Holloway.

Scalded to Death by a Vapour-bath.—An inquest was held at Liverpool on the body of a child, 20 months old, who was very dropsical, and had been ordered a vapour-bath, in the process of which it received some injuries from the steam, which scalded it to death. The use of *naked* steam—*i.e.*, steam as it issues at first from heated water—is always dangerous. A few years ago we noticed a case in which a young woman was scalded to death by a very common form of vapour-bath—that in which heated bricks are put into a tub of water, over which the patient sits.

Faraday and Mr. Home.—Professor Tyndall has written a significant letter to the *Pall-mall Gazette*, which we trust may help to dispel the illusions of many of those respectable but weak-minded people who believe in spiritual furniture. He tells us that some years since Faraday yielded to the persistent entreaties of a gentleman that he should investigate spiritualism, and consented to go to one of Mr. Home's *séances* provided he was allowed to test the manifestations in his own way, and to publish the result of his observations. Dr. Tyndall neatly expresses Mr. Home's determination to have nothing to do with physical philosophers, by saying, "The proposed investigation never took place." Of course it did not. Did ever any thoroughly rational and observant man offer to test the spirits without being told that, being [illegible] his presence was of itself sufficient to suppress the "manifestations"?

REVIEWS.

Injuries of the Spine; with an Analysis of nearly Four Hundred Cases. By John Ashhurst, jun., A.M., M.D., Fellow of the College of Physicians, Philadelphia; Surgeon to the Episcopal Hospital. Philadelphia: J. B. Lippincott and Co. London: Trübner and Co. 1867.

It is only since the commencement of the present century that injuries of the spine have attracted from Surgeons the attention they deserve, and it is only of late that any notable attempts have been made to elucidate the more obscure points in their pathology. We, therefore, gladly welcome any contribution which, like the volume before us, bears evidence of careful study and an earnest desire to arrive at the truth of the various questions under consideration. The author has adopted the statistical method of inquiry, and appears to have conducted his investigations in a perfectly impartial spirit. The question of the value of resection or trephining in cases of fracture of the spine, although so earnestly debated by Sir Charles Bell and Sir Astley Cooper, appears never to have been submitted to the test of statistical criticism; and it is as a contribution towards the settlement of this and similar vexed questions in spinal pathology that the present essay is offered to the Profession.

The rarity of these injuries is evident from the fact that out of a total of 1901 fractures treated at the Middlesex Hospital in six years only 8 proved to have been cases of fracture of the vertebræ, and that only 14 such cases were admitted into the Hôtel-Dieu in eleven years. It is, therefore, evident that no single Surgeon can have had a very extensive experience in this subject. Out of the total of 394 cases of spinal injury examined by Dr. Ashhurst, it appears that 31·47 per cent. are reported as pure dislocations, 49·49 per cent. are reported as pure fractures, and 13·45 per cent. as fractures conjoined with dislocations. The author expresses a judicious hesitation in accepting all the cases of pure dislocation, considering that in many there may have been some slight bone lesion in addition, although, from the observations of Mr. Bryant on a limited number of cases published in the fifth volume of the *Guy's Hospital Reports*, it would appear that a still larger proportion —35·29 per cent.—proved to be cases of pure dislocation.

The cervical region naturally suffers most from these injuries, having been affected in 208, or 52·79 per cent., of the cases under examination. The dorsal region yields 106, or 26·90 per cent., whilst the lumbar region was injured in only 37 instances, or 9·39 per cent. Besides these a few cases occurred in which more than one region was affected. As might be expected, it appears that males are vastly more liable to these injuries than females, in the proportion of 76·42 to 9·90. In examining the list of the causes producing injury of the cervical spine, we find that falls occupy the first place; and we have been somewhat surprised to notice that only the very small proportion of 2·36 per cent. is assigned to hanging—a fact which leads one to suspect that deaths from judicial executions have not been included in the list, as we believe that dislocation or fracture of the cervical vertebræ usually follows the sudden fall of the drop. Dislocations naturally form but a small proportion (13·98 per cent.) of the injuries of the dorsal spine, and it is not easy to understand how this form of injury ever occurs without some simultaneous fracture of the articular processes.

The author's account of the symptoms attendant upon these injuries and of their relative frequency is good, and the statistics relating to their comparative frequency is well worth careful study.

Removal of a portion of the spine as a means of relieving compression of the spinal cord was first practised by Mr. Cline, although the operation had been recommended and its value discussed since the days of Paulus Ægineta. About twenty-five cases have been collected by the author, from a careful examination of which he arrives at the following conclusions:—

"Whenever there is reason to believe that one or more vertebræ have been displaced, extension should be employed: temporary, if that be sufficient; if not, continuous."

"In no case do resection or trephining offer a reasonable prospect of improving the patient's condition, but, on the contrary, there is reason to fear that they would increase the chances of a fatal termination."

"Those cases of spinal injury which are not adapted for the employment of extension should be treated in accordance with ordinary rational and physiological principles."

The volume contains several valuable and well-arranged tables of cases, and will prove an important addition to the literature of the subject which it treats.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, May 5.

The closing meeting of the twenty-ninth annual session of the Pathological Society of Dublin was held in the anatomical theatre of Trinity College, on Saturday, the 2nd inst., Dr. Gordon, President, in the chair. Interesting communications having been made by Dr. Stokes, jun., Dr. Hayden, and Dr. Hewitt, the President proceeded to review the very favourable progress of this, the oldest association of its kind, during the past session. He was also able to congratulate the Society on the reappearance among them, in renewed health, after a long and serious illness, of their distinguished Secretary, one of the founders of the Society, Dr. Robert William Smith. But the great business of the day was the presentation of the gold medal of the Society to the successful candidate, and never had the Council, Dr. Gordon was instructed to say, bestowed their medal with greater satisfaction. The prize essay, which was exhibited, was indeed well worthy of the epithet bestowed upon it by the President—splendid; splendid not only in the style of getting-up, its maps, diagrams, and drawings illustrative of its subject, but in the exhaustive manner in which it treated of the important topic of cerebro-spinal arachnitis. "This essay throws," observed Dr. Gordon, "a mass and richness of light on the subject it is intended to illustrate which it has never before received, and it reflects on the writer a degree of lustre that he may justly be proud of, and which, I sincerely hope, is but the commencement of a very bright and very brilliant career." Your correspondent would add his conviction that the publication of this elaborate and exhaustive essay, with its valuable illustrations, would be a boon to the Profession at large.

On opening the sealed envelope, the writer of the essay was found to be Mr. Edward Wolfenden Collins, B.A., ex Medical scholar of the University, already known to your readers as the eloquent auditor of the Dublin University Medico-Chirurgical Society. Mr. Collins, having been called on, received the medal at the hands of the President, amid the hearty congratulations of those present.

A crowded meeting of the Fellows, Licentiates, and students of the Royal College of Surgeons was held on Monday, the 4th inst., at the College, to hear the announcement of the names of the successful candidates for the Carmichael Prizes, which was then made by the President, Dr. Robert Adams. It may be in the recollection of your readers that the late distinguished Surgeon, Mr. Carmichael, in addition to other noble bequests to the Profession which he had so long adorned, left to the College the sum of £3000, the interest of which is, in the terms of his will, to be thus disposed of:—

"Every fourth year, after the investment of this sum in the funds of the College, a premium of £200 to be adjudged by the Council of the College for the best essay, and £100 for the second best essay, on the following subjects:—1st. The state of the Medical Profession in its different departments of Physic, Surgery, and Pharmacy, in Great Britain and Ireland, at the time of the writing of these prize essays. 2nd. The state of the Hospitals and Schools of Medicine, Surgery, and Pharmacy. 3rd. The state and mode of examination, or of testing the qualifications of candidates, of the different licensing Colleges or Corporations in Medicine, Surgery, and Pharmacy. Under these three heads the authors will please to make such suggestions as may occur to them respecting the improvement of the Profession, with the view of rendering it more useful to the public, and a more respectable body than it is at present. In these suggestions the authors will please to consider the preliminary and moral education of Medical and Surgical students, as well as the best mode of conducting their Professional studies. In considering the third head, or the manner of testing the qualifications of candidates by the licensing bodies, the authors will please to consider the most practical mode of rendering the examinations as demonstrative as possible—*i.e.*, in anatomy, by having the dead subject placed before the candidate; in chemistry, botany, and pharmacy, by having specimens of minerals, plants, and pharmaceutical preparations placed before him; and in the practice of Physic

and Surgery, the candidate to be placed before the patient in the wards of an Hospital, as the testator is certain that this will afford the most certain and only true mode of ascertaining the qualifications of candidates. The Council of the College (if they agree to act on this proposal) will please to give one year's notice in the public papers and Medical journals, and all the competitors for the prizes offered shall send in their essays three months before the day (the first Monday in May every fourth year) upon which the Council shall pronounce their judgment."

Should the essays sent in not have sufficient merit, the fund is to be allowed to accumulate until the end of the eighth year, when the prizes are to be £400 and £200 respectively. On the present occasion five essays were sent in, of which that with the motto "Write and Prosper," appearing to be the best, was adjudged the first prize of £200, the second prize of £100 being awarded to the writer of the essay designated by the motto "Non nobis, sed omnibus." On opening the corresponding sealed envelopes, the author of the first prize essay was found to be Dr. Edward D. Mapother, that of the second Mr. Isaac Ashe, A.B., M.B. Dub., of Warrenpoint, Co. Down.

As no award was made at the last quadrennial period, it would appear that, according to the terms of Mr. Carmichael's will, Drs. Mapother and Ashe will be entitled to receive 400*l.* and 200*l.* respectively.

A meeting of the Medical Teachers of Dublin was held at the College on the same day to take into consideration the expediency of opening the winter session in future on October 1 instead of on November 1, as heretofore. The chair was taken by Dr. Benson, and after a lengthened discussion it was resolved that a committee, composed of one representative from each of the schools, should be appointed to consider the whole question of the most suitable periods for commencing and closing the winter and summer sessions, the duration of the Christmas and Easter vacations, etc.

Your readers are, I believe, already aware of the princely hospitality with which, on a recent occasion, our Medical Lord Mayor entertained the royal visitors to our city. Comparisons, it is said, are odious; but I may state that it is admitted on all hands that, both on the occasion of the late ball, and at his Lordship's inaugural banquet, the arrangements were on a scale of unwonted splendour and liberality. In the graver matters of his administration, too, our worthy chief magistrate, by his fairness and impartiality, gives universal satisfaction, and it is acknowledged by all parties that no more fitting selection for the highest office in our municipality could have been made than has been found in the person of Dr. William Carroll.

BIRMINGHAM.

May 5, 1868.

There is a lull in the hostilities between the sick clubs and their Surgeons, which, if what report says be true, forebodes no concession to the demands of the latter, which by several of the clubs are thought to be unjust and exacting to a degree. I hear that some club magnates are taking secret counsel to devise measures by which they may resist the pressure brought to bear upon them by the combined action of their Surgeons, and that the plan which they are likely to adopt will take the shape of a Dispensary of their own, with a well-appointed and well-remunerated Medical staff. Such a scheme as this, if properly carried out, would very efficiently settle the moot-point in question, and solve the sick-club enigma with a vengeance.

In my last communication I informed you that the Dispensary was in a state bordering upon anarchy, owing to the resignation of the whole of its honorary officers. Nothing had as yet been done by the governing committee to meet the wishes of their officers, further than the production of a copious report which sets forth that they do not feel themselves justified in using the moneys of the charity for any other purpose than that for which they were originally given—for the Medical relief of the sick poor. In the meantime they had solicited their officers to continue in office pending the final settlement of the dispute; and the committee submitted to the subscribers the following scheme for the government of the Dispensary in future, which they think would provide for the efficient conduct of the institution in case of the impossibility of retaining the services of an honorary staff:—

"1. In the appointment of an additional paid resident Physician. The resident staff would then be amply sufficient to deal with the majority of cases treated at the institution, and which are of an ordinary character, requiring no exceptional skill.

"2. In the appointment of one Consulting Physician and one Consulting Surgeon, each to be of eminence in his Profession, and to be paid for his services either by an agreed annual fee, or by a sum varying with the calls made on his time. These gentlemen would be called in consultation by the resident staff on the occurrence of any case of unusual difficulty or danger."

Appended to the report is a table giving the names, staff, and other particulars relating to seventy-six dispensaries in different parts of the country.

The governors of the Dispensary have met, and have resolved to reject the application of their honorary Medical staff, and to adopt the scheme as drawn up by their committee. This step has given great offence to a large body of subscribers to the charity; their chairman has resigned his office, whether from this cause or not I cannot say. Here have we not an exemplification of how little value is set upon gratuitous Medical services? Surely the Profession will learn an instructive lesson from this exhibition of Hospital niggardliness. The honorary Medical staff have, of course, insisted upon their resignations being at once accepted.

When speaking of Queen's College in my last letter, I stated that a list of new Professors was in course of preparation; it has since then been made public. On the whole it has given satisfaction. There are, indeed, a few names left out, which, for the sake of peace and amity, it would have been good taste to have retained; but this, it appears, could not possibly be arranged, as there was rather a glut than a dearth of professors at the command of the Council.

The principal topic of conversation here is the approaching meeting of the Social Science Congress, which has accepted the invitation to meet in our town. From the eminent names which appear on the list of subscribers to the fund which is being created to celebrate it, literature, science, and art will be worthily represented, and we may reasonably anticipate an illustrious gathering.

In connexion with the Midland Institute, the seat of learning for the artisans of the Midland metropolis, there is a society which commenced its operations in a very humble way, but which has since flourished to an unexpected degree; commencing with only a few, yet energetic members, it now numbers some eighty or ninety staunch supporters, belonging to all classes of the community. It bears the name of the Birmingham Natural History Society, and a very popular society it has become, as is shown by the large number of students who attend its weekly meetings. The members meet every week to read papers on some branch of natural history, botany, or zoology, and at stated intervals *conversazioni* and exhibitions are held, at which much instructive and pleasing information may be acquired.

The Medico-Political Association has issued its programme to the members of the Profession in this locality, and from the number of members—nearly ninety—who have already enrolled themselves under its banner, it is likely to prosper, although some of the members of the British Medical Association object to it, on the ground that its labours are a work of supererogation; yet, from the fact that the interests of the Faculty are not sufficiently looked after, there is plenty of room for the reception of another champion to advocate and secure them. This Society is represented here by Mr. Arthur Oakes, who is its vice-president; and if energy, determination, and a spirit of chivalry for the honour of the Profession can insure it success, it will be most certainly attained.

Our town continues to keep its high character for salubrity. At the present time there is no epidemic. A few cases of small-pox, of a mild form, have cropped up; but even this disease, if the protective measures of the new Vaccination Act be strictly enforced, is as likely to be "stamped" out by vaccination as it would be by the remedy of "isolation," as proposed by the illustrious Simpson.

Great Northern Hospital.—The most noble the Marquis of Westminster, K.G., one of the Vice-Presidents, has just presented the committee of this Hospital with the munificent gift of 200*l.*, and some time before his lordship gave 300*l.* The Holloway Volunteer Fire Brigade have presented 65*l.*, the proceeds of a dramatic fete in aid of the new Hospital buildings.

GENERAL CORRESPONDENCE.

ALLEGED GANGRENE AT THE NEWCASTLE INFIRMARY.

LETTER FROM DR. A. BOLTON.

[To the Editor of the Medical Times and Gazette.]

SIR,—May I request the insertion of the enclosed, by way of explaining the case of the French sailor treated in this Infirmary, and to which Dr. Gibb refers in his letter inserted in your paper? The letter of a late clinical clerk, Mr. J. T. Parkinson, who admitted the case into Hospital and subsequently attended to the dressing, might further be inserted, with your permission. I am, &c.

A. BOLTON, M.D., House-Surgeon.

Infirmary, Newcastle-on-Tyne, April 28.

(Copy.)

"Consulat de France, à Newcastle,

"April 28, 1868.

"*To the House Committee of the Newcastle Infirmary.*

"Gentlemen,—My attention has been directed to a letter in the local newspapers by Dr. Gibb, in which reference is made to the case of Antoine Dominique, a French sailor who was admitted into the Newcastle Infirmary. As the letter contains a statement calculated to convey an erroneous impression, I think it my duty to give the real facts. My countryman was a sailor on board the s.s. *Savoie*, and had two fingers crushed in the river. They were amputated by a Surgeon at Shields. Two days afterwards he was brought to the consulate, and taken thence to the Infirmary, where my clerk saw that the wound looked black when the dressing was removed. Having visited the Infirmary many times, I am able to speak as to the manner in which the House-Surgeon, the clinical assistants, the nurses, and other officials performed their duties. My chancellor, Mons. Moulun, has also had frequent opportunities, for three years past, of judging of the manner in which the French sailors have been treated prior to my arrival at Newcastle. The patients, in every case, appeared well cared for and happy, and in some cases expressed themselves to that effect.

"I may add, in conclusion, that the wards of the Infirmary invariably appeared clean and well ventilated.

"M. DES NOYERS, the French Consul."

LETTER FROM MR. J. T. PARKINSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I observed in your impression of Saturday last a statement made by Dr. Gibb to the effect that a Frenchman (Antoine D.) was admitted an in-patient of the above Infirmary on October 21, 1867, and that his fingers were amputated then; that subsequently he suffered from gangrene, then prevailing in the wards of the Hospital. At the time referred to, I was resident Clinical Clerk to the Infirmary, and received the said patient, and beg to testify as to his condition. Two of his fingers had been amputated two or three days before his admission. On removing the dressings, I found that the parts were cold and livid, and almost void of vitality—so much so, indeed, that sloughing and gangrene were to be anticipated from the nature of the injury. I therefore removed the sutures from the wound, and applied a hot poultice. After amputation of the hand, I had the charge of the dressing of it. He recovered rapidly, and was a grateful patient. I never heard of any complaint, and I cannot see that it is just to attribute the necessity for amputation of the hand to anything but the severe nature of the injury. I am, &c.

J. T. PARKINSON, M.R.C.S.E.
(late Clinical Clerk).

4, Adelaide-terrace, Newcastle-upon-Tyne, April 28.

ON Saturday, the 16th, Mr. Chadwick has promised to read a paper before the Metropolitan Association of Medical Officers of Health "On the chief heads of a sanitary specification to architects of the ends to be insured in the construction of a dwelling-house." He will also propose resolutions for adoption on drainage, well construction, and ventilation. The meeting will be held in the Scottish Corporation Hall, Crane-court, Fleet-street, at 7.30.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, APRIL 21, 1868.

J. SIMON, Esq., F.R.S., President, in the Chair.

REPORTS were read by Messrs. De Morgan and Wood on "Ainhum," by Dr. Sanderson and Mr. Hulke on the Cholera Fungus, and by Mr. Bruce on Mr. Arnott's specimen of diseased rectum pronounced to be non-heterological.

Mr. CURLING exhibited

TWO RETAINED TESTICLES

from a man aged 60, who had died from fracture of the skull. The scrotum was a mere remnant, the testicles small, with a good deal of fat about the epididymis. The man was the reputed father of six children. The testicles were like those of a child, the tubuli not being capable of drawing out. No spermatozoa were found, which has been the case in every instance of retained testicle recorded.

A communication was made by Dr. H. CHARLTON BASTIAN on the

PASSAGE OF THE RED BLOOD-CORPUSCLES THROUGH THE WALLS OF THE CAPILLARIES IN MECHANICAL CONGESTION.

It is my intention to exhibit to the members of the Society to-night Dr. Cohnheim's experiment illustrating the effects of venous stasis and the passage of the red blood-corpuscles through the walls of the capillaries in this condition; but before describing what is to be seen in this experiment, I may state that mechanical congestion is not the only pathological state in which this same diapedesis is known to occur. Dr. Cohnheim had shown previously that in the process of inflammation; at the same time that the white corpuscles penetrated the walls of the veins, so did the red corpuscles make their way through the walls of the capillaries. After this, Stricker,(a) of Vienna, first, and then his pupil, Prussak,(b) showed that by injecting a small amount of a ten per cent. solution of chloride of sodium beneath the skin of a frog, an artificial scorbutic condition was produced in which extravasations of blood took place not only into the web of the frog's foot, but also into the various internal organs. The same extravasations of blood took place in rabbits similarly treated, and such effects seemed to result from the administration of chloride of sodium only—other salts having been tried without the same result. On microscopic examination of the frog's web after such an injection, it was clearly ascertained that the hæmorrhagic maculæ in this situation resulted from the greater accumulation in certain spots of red blood-corpuscles which had passed out individually through the capillary walls. The passage of these through the capillary wall could be seen with the greatest ease, and, such being the case, it seemed only fair to infer that the hæmorrhagic effusions into the internal organs and other situations had a similar mode of origin. These experiments I have repeated on the frog, and I am able so far to endorse the statements of Stricker and Prussak. Turning now to Dr. Cohnheim's(c) experiment, which I have also repeated several times, I will briefly describe its principal features. A frog having been previously narcotised by the subcutaneous injection of woorara, the femoral vein is tied with a piece of twine (including a portion of muscle, so as to facilitate the subsequent cutting of the ligature), and soon the capillaries and veins become gorged with blood to an increasing extent. Serum is gradually poured out into the web, causing this to become notably œdematous. After a time a distinct oscillation of the blood takes place in the vessels. Much of what is driven forward during the systole of the ventricle into the capillaries and veins is returned into the arteries by elastic recoil during the diastole of the ventricle. The red blood-corpuscles gradually arrange themselves crossways in the capillaries, and already in the space of about fifteen or twenty minutes complete stasis may be seen to have taken place in certain capillaries, the corpuscles in which appear to become fused into a homogeneous mass, interrupted here and there by the presence of a white corpuscle. In the space of about forty minutes, it may be seen that capillaries which before presented an even cylindrical appear-

(a) [illegible] Akademie der Wissenschaften, No. 6. 1867.
(b) [illegible] Math. Naturw. Cl. 2 Abth. Bd. [illegible].
(c) Virchow's *Archive*, xli.

ance begin to exhibit projections from their walls, which go on increasing in number and size till these assume an utterly irregular outline. Some of the projections afterwards separate themselves, and may be seen in the adjacent tissue as unmistakable red blood-corpuscles. But that they are really such may now be seen more fully by cutting the ligature on the femoral vein, when in a very short time the homogeneous and apparently fused mass in the capillaries again becomes resolved into individual corpuscles, and the circulation is soon restored throughout the web. Then there may be seen, in addition to the red corpuscles which have passed completely through the capillary walls, and are lying imbedded in the tissue around, numerous others in all stages of their outward passage; some showing only a small projection outside the capillary wall, whilst the major part of the corpuscle is within, the two portions being united by a thread-like part, actually in and constricted by the capillary wall; others showing half of the corpuscle out and half within the vessel; and still others, where three-fourths or more of the corpuscle may be without, and only the smallest portion (separated by the constricted part within the vessel wall) lying in the interior of the capillary itself. Thus the corpuscles are seen actually in the capillary walls and in all stages of their outward passage. In explanation of this phenomenon, Dr. Cohnheim adopts the view advanced by Oedmanson, that the capillaries are formed by the juxtaposition of a number of flat epithelial cells, in the angles of union of which certain stomata exist through which, as he thinks, the corpuscles are forced by reason of the increased pressure in the vessels, and favoured by the transverse position previously assumed by the corpuscles themselves. This view as to the structure of the capillaries is based upon the appearances presented by these vessels after staining with a weak solution of nitrate of silver, when the ordinary brown lines are said to be produced, such as exist between pavement epithelium in other situations. This conception as to the structure of the capillaries is, however, completely rejected by Stricker, who seems to have made careful observations on their structure and genesis. He maintains that, even though such markings are to be met with after staining with nitrate of silver, it is not fair to infer from this the mode of genesis of the capillaries, and that their formation by the juxtaposition of epithelial cells is directly negatived by observations which he has himself made upon the subject. He believes them to be composed of a yielding homogeneous and contractile protoplasm, which, in harmony with the properties of this substance generally, has the power of developing processes or outgrowths. These, Stricker says, he has seen developing from the walls of the capillaries, and he maintains that they subsequently become channeled, and unite with other similar processes so as to form new capillaries. His explanation (and also Prussak's) of this passage of the red blood-corpuscles is not that they are forced through certain pre-existing pores in the capillary walls, but that they pass out by virtue of some "active condition" of the capillary wall itself. From what I have myself observed, I am unable to endorse the explanation given by either of these observers, and my own opinion is that the corpuscles pass out in all these conditions—whether in inflammation, in the artificial scorbutic state, or in mechanical congestion—by virtue of certain active *amœboid* movements to which the red blood-corpuscles have been excited, owing to alterations in the nature of the blood-plasma having an irritating effect upon them. In fact, that they effect their outward passage by dint of amœboid movements, such as the white blood-corpuscle has been long known to exhibit, and by means of which they so readily make their way through the walls of the veins, as shown by Dr. Cohnheim, and as I hope to demonstrate to the members of the Society on a future occasion. I was led to adopt this view for the following reasons:—I observed first, whilst watching the phenomena of inflammation in the frog's foot, that in certain capillaries beyond the region where this process existed in its greatest intensity, and in capillaries through which the blood was still flowing, certain red corpuscles seemed occasionally to linger by the side of the capillaries, applying their flat surface against its walls. Sometimes these were swept away by the blood-stream passing over them, and occasionally, before they were completely separated from the capillary wall, I have seen them adhering to this for a moment or two by means of a small thread-like process, as though adhesion had taken place to some portion of the capillary wall, which had only been overcome by the blood-stream after the drawing out of a tag-like projection from the yielding substance of the corpuscle. Other corpuscles, which had applied themselves to the capillary wall in the manner above described, were not swept away, and in the space of about fifteen or twenty minutes a distinct projection of the corpuscle was to be seen on the outer side of the capillary wall, which went on increasing until the whole of the corpuscle was within the tissue outside the vessel—this taking place whilst corpuscles and blood-plasma were still freely circulating through the capillary. Precisely similar phenomena may be seen after the subcutaneous injection of chloride of sodium, the corpuscles passing out in the same manner. And in repeating Dr. Cohnheim's experiments on mechanical congestion, I have almost invariably seen that the first corpuscles which penetrate the walls of the capillaries are not those situated in the vessels whose contents have undergone complete stasis, and have become fused together, but rather those contained in capillaries in which an oscillation of blood-plasma and corpuscles is still taking place. Here, also, individual corpuscles apply themselves to the capillary wall by one of their surfaces, and after a time the process of perforation takes place. Occasionally considerable numbers of corpuscles pass out in this way from capillaries in which no stasis has taken place, and that, too, somewhat earlier than the similar exodus of corpuscles from the capillaries in which complete stasis has occurred. Therefore, because the corpuscles seem to pass out indifferently at all parts of the wall of the capillary, and with no approach to anything like a regular arrangement, such as one might expect to occur if they were extruded through pre-existing stomata at the junctions of epithelial cells; because the increased tension in the vessels seems adequate to account for the passage outwards of fluid from them, but not of corpuscles contained in this fluid, which, by the ordinary laws of fluid pressure, would be pressed upon equally in all directions unless one of their surfaces were absolutely in contact with the wall of the vessel; and lastly, because the mode in which the corpuscles are observed to become applied by their flat surfaces to the capillary walls is the very reverse of that indicated by Dr. Cohnheim as the favourable position which the corpuscles assume for forcible extrusion through pre-existing pores—for these various reasons it seems to me that his explanation is untenable. With regard to Stricker's supposition that the corpuscles are passed through by virtue of some "active" condition of the capillary wall itself, I have been able to observe nothing either for or against it; it seems a pure hypothesis, with not much to be said in its favour. And I think the evidence adduced points rather to the passage of the corpuscle outwards by reason of some active condition which the corpuscle itself assumes, its adhesion to the wall of the capillary being produced by the throwing out of a small amœboid projection, which tends to adhere to and commence the perforation of the elastic and yielding capillary wall; this view being also supported by the irregular shape and frequent constrictions of the portion of the corpuscle outside the vessel, when more than half of it has passed through the capillary wall. Having formed this opinion from observation of what takes place in these processes, I afterwards found a paper, in a recent number of Virchow's *Archiv*,(d) by Dr. Friedreich, of Heidelberg, fully describing certain remarkable changes of form—also protrusions of processes and subdivisions—which he had seen taking place in red corpuscles found in the concentrated bloody urine of a patient suffering from renal disease; and also notable alterations of shape of red corpuscles taken from a patient supposed to be suffering from leukæmia. These phenomena he believed to be vital rather than physical, and excited by certain abnormal irritative conditions acting upon the corpuscles. Max Schultze(e) also, and Dr. Beale(f), have observed notable alterations in shape of red blood-corpuscles when subjected to a high temperature; but these, as the respective observers conjectured, were probably changes occurring after the life of the corpuscle had been destroyed. Dr. Beale hints, however, that similar changes of form may occasionally take place during life. Bearing in mind also the characters of the red blood-corpuscle as described by Dr. Roberts(g) after the action of magenta and tannin respectively, it seems well that the attention of future observers should be directed to these peculiarities and to the particulars above mentioned, in order to determine more certainly than has yet been done how

(d) *Virchow's Archiv* [illegible] 1865. S. 296—411.

(e) *Archiv für Mikroskop. Anat.* Bd. i. 1865. S. 2.

(f) *Archives of Medicine*, No. 1864.

(g) *Proceed. of Roy. Soc.* 1865.

far amœboid movements and contractions do take place in the much-examined and much-written-about red blood-corpuscle. Presuming that these corpuscles do pass through the walls of the capillaries in the manner I have indicated, it seems to me that they may be made to assume this active condition either by changes in the nature of the blood-plasma, or by some unknown action of the tissues outside the vessel upon the corpuscles within, such as has been assumed to exist in inflammation. In the scorbutic condition, and in the state of mechanical congestion, I should imagine that changes in the nature of the blood-plasma would be the most potential—such changes in these two conditions being perhaps not altogether dissimilar. Certainly I have noticed in both these conditions that most of the corpuscles which can be seen to penetrate the walls of the capillaries present an easily appreciable and similar alteration from their normal structure. This consists in the presence of from two to four small clear spots, looking like vacuoles, in each red corpuscle. What significance the existence of these may have, as pointing to an abnormally active coexisting condition of the corpuscle, must be left for future observation to determine. I have two specimens to exhibit to the members of the Society—one in which the femoral vein remained tied for about four or five hours yesterday, and one in which the vein is at present tied, and in which almost complete stasis of blood exists throughout the web.

(*To be Continued.*)

NEW INVENTIONS.

SCHAFER'S EGG TESTER.

This is an ingenious little instrument for testing the quality of eggs, so far as indicated by their transparency. It consists of a little cubical box divided diagonally by a mirror, and having one aperture above into which to put the egg, another in front through which the observer examines its transparency. If the egg gives a clear bright disc, it is good; if a black opaque one, it is bad; and, of course, there is an infinite number of *nuances* and gradations between these two extremes. Some people do not like eggs too fresh, and they may pick out such specimens as indicate by their cloudiness a certain degree of ripeness, short of being quite addled.

NEW BOOKS, WITH SHORT CRITIQUES.

The British and Foreign Medico-Chirurgical Review. April, 1868.

A very meagre number. Amongst the reviews, the article which has been most in demand amongst us is that on Dr. W. H. Dickinson's recent work on Diseases of the Kidney. Dr. Dickinson has also reviewed the recent epidemic in Iceland, the antagonistic property of poisons, which, however, is not worked out to its results, loss of infant life, psychological Medicine, etc. Besides, there are original papers by Mr. Hunter, on the hypothermic use of cold baths in paralysis, by Dr. B. Ogston, on a series of cases of sudden death in infants, supposed to be produced by overlying, and by Dr. J. W. Ogle, on non-fatal cases of chorea.

Die Nerven des Uterus und ihre Endigung in den glatten Muskelfasern. Untersuchungen über Anatomie und Gynäkologie. Von Dr. F. Frankenhäuser. Jena. 8vo.

The Nerves of the Uterus and their Termination in the Flat Muscular Fibres. Researches in Anatomy and Gynæcology. By Dr. F. Frankenhäuser.

This handsome and useful work consists of eight plates, with descriptive letterpress. The first exhibits the nervous supply of the female sexual organs on the left side, the second of those on the right side, the third, the communications of the nerves between the abdominal and the sexual organs; the fourth, the ramifications of the ovarian nerves, and their communications with those of the uterus; the fifth shows the cervical ganglion and sacral nerves on the right side of an unimpregnated uterus; the sixth shows the same nerves with the uterine nerves when the uterus is impregnated; the seventh plate exhibits the termination of these nerves, as seen in the rabbit; whilst the last shows the microscopic elements encountered in the uterine organs. It has seldom been our lot to examine plates more beautifully drawn, lithographed, and coloured. As to their accuracy, we leave others to report.

Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris. [illegible] Série. Année 1867. Paris: Asselin.

Proceedings and Transactions of the Medical Society of the Paris Hospitals. Third Series. Pp. 344 and 69.

*** French discussions partake much more of the character of a series of dissertations on any particular subject than do ours, and this peculiarity cannot fail to be impressed on the annual volume of a great society like this. It consists of two parts, the former corresponding to what might be termed the minutes or proceedings of each meeting of the Society; the latter of communications given at full length. The former is no doubt brilliant and instructive, but the latter, although consisting of but two papers, is of peculiar value. One of these, on the subject of venous bruits in the neck, is by M. Potain, and is a most valuable contribution to the literature of the subject. The other, by M. Cohn, discusses the malarial simulacrum fevers which infest Rome.

MEDICAL NEWS.

University of St. Andrews.—The following gentlemen, having passed their examinations, obtained the degree of Doctor of Medicine on the 23rd ult., viz.:—

Barry, Lovell P., M.R.C.S. Eng., L.M., L.K.Q.C.P., Twickenham.
Clarke, Edward, M.R.C.S. Eng., L.S.A., Lymington.
Dobbie, Thomas, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., L.M., Sydney, New South Wales.
Griffiths, Edwin T., L.F.P. and S. Glas., L.S.A., Birmingham.
Hunt, Benjamin, M.R.C.S. Eng., L.S.A., Birmingham.
Merryweather, Henry, M.R.C.S. Eng., Sheffield.
Palmer, William J., M.R.C.S. Eng., Calcutta.
Richardson, Lea, M.R.C.S. Eng., Hong Kong.
Troup, Francis, L.R.C.S. Edin., Auchtermuchty, Fife.

Royal College of Physicians of London.—At a general meeting of the Fellows held on Thursday, April 30, the following gentlemen, having undergone the necessary examination, were duly admitted Members of the College:—

Fitzpatrick, Thomas, M.D. Dublin and Cambridge, 30, Sussex-gardens.
Maclure, Duncan Maclachlan, M.B. Lond., 34, Harley-street.
Orange, William, Broadmoor, Wokingham.
Roberts, David Lloyd, M.D. St. Andrews, Manchester.
Wiltshire, Alfred, M.D. St. Andrews, 19, Queen Anne-street.

At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Brownfield, Matthew, 171, East India-road.
Cant, William Edmund, 2, Vale-place, Hammersmith.
Costerton, Horatio, 15, Victoria-cottages, Archway-road, Highgate.
Grier, Charles, 5, St. Mary's-place, Westbourne-park.
Hill, James Robert, Earl's-court-house, Old Brompton.
Hunt, William Alfred, Yeovil.
Lloyd, John, 30, Alfred-street, Bedford-square.
Mackenzie, George Welland, London Hospital.
Moore, Richard Bond, St. Bartholomew's Hospital.
Murphy, Thomas Charles, Consumptive Hospital, Brompton.
Ridge, John James, Horselydown.
Robertson, Dalrymple Kinloch, St. Bartholomew's Hospital.
Saunders, Laurence, M.D., Queen's College, Kingston, Canada.
Shoppee, Edward Collett, 16, Clarence-road, Kentish-town.
Smith, Eldred Noble, Hertford.
Sykes, John, Leeds.
Toulmin, William Calvert, Lower Clapton.
Welby, Erasmus, Newark-on-Trent.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 5th inst., viz.:—

Adams, W. P., Rochester, of the Charing-cross Hospital.
Anderton, J. P., Manchester, of the Manchester School.
Banks, J. A. P., Acton, of the Dublin and Middlesex Hospitals.
Beach, Fletcher, Bridport, of King's College Hospital.
Blandford, J. W., Corbridge, Northumberland, of the Newcastle School.
Boddy, H. W., Manchester, of the Manchester School.
Boutflower, Andrew, Manchester, of the Manchester School.
Bridges, W. P., Cirencester, of Guy's Hospital.
Cartwright, J. A. T., Spalding, Lincolnshire, of King's College Hospital.
Fay, T. W. W., Liverpool, of the Liverpool School.
Ferté, C. H. Joubert de la, Porchester-terrace, of St. Mary's Hospital.
Fletcher, Richard, Bury, near Manchester, of the Manchester School.
Gay, J. H., Wisbeach, of Guy's Hospital.
Hart, Walter, Lupus street, Pimlico, of King's College Hospital.
Jones, B. M., Groes, Denbigh, of the Dublin School.
Morgan, J. R., Merthyr Tydfil, of Guy's Hospital.
Noake, S. J., Leeds, of the Leeds School.
Paton, J. W., M.B. and M.C. Edin., Ayr, of the Edinburgh and Paris Schools.
Roberts, W. L., Spilsby, Lincolnshire, of King's College Hospital.
Rouch, J. B., Bristol, of St. Bartholomew's Hospital.
Shaw, Thomas, Walsall, of the Birmingham School.
Tucker, John, L.S.A., Ilford, of Guy's Hospital.
Ward, W. J. C., L.R.C.P. Edin., Edinburgh, of the Edinburgh School.
Williams, J. L., M.B. and M.C. Edin., and L.S.A., Wrexham, of the Edinburgh School.

The following gentlemen passed on the 6th inst., viz.:—

Adams, John, Shelton, Staffordshire, of the Middlesex Hospital.
Bale, H. A., Exeter, of the Middlesex Hospital.
Barnish, W. E., Wigan, of the Manchester School.
Bately, John, Great Yarmouth, of the Birmingham School.
Bishop, William, Chipping Norton, of University College Hospital.
Brookhouse, C. T., Nottingham, of Guy's Hospital.
Clarke, T. E., Kirkby Lonsdale, of the Middlesex Hospital.
Forte, J. H., Barbadoes, of Guy's Hospital.
Giddings, J. A., Old Trafford, near Manchester, of the Manchester School.
Morgan, Frederick, Taunton, of the Westminster Hospital.
Page, Frederick, Milton, near Southsea, Hants, of the Edinburgh School.
Provis, Witon, Bath, of the King's College and Bristol Hospitals.
Rix, C. J., Manchester, of the King's College and Manchester Hospitals.
Roberts, Owen, Pwllheli, North Wales, of St. Mary's Hospital.
Robertson, Robert, Fowey, Cornwall, of the Middlesex and St. Thomas's Hospitals.
Sleightholme, J. P., Whitby, of the Manchester School.

Somerville, T. A., Wilberforce-road, Manchester School.
Sutcliffe, A. E., Southwood-rd., of the Manchester School.
Thompson, J. A., Belmont-street, Westbourne-park, of Guy's Hospital.
Ward, J. E., New Kent-road, of Guy's Hospital.
Williams, Owen, Anglesea-rd, of St. Mary's Hospital.

The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 30th ult., and, when eligible, will be admitted to the Pass Examination:—

Beatson, W. Ince, of Guy's Hospital.
Bridges, H. M., of the Birmingham School.
Butler, Charles, of St. Bartholomew's Hospital.
Crisp, J. L., of the Newcastle School.
Dixon, H. E., of Guy's Hospital.
Eagle, H. F. C., of the London Hospital.
Etheredge, G. E. F., of St. Bartholomew's Hospital.
Fox, H. C., of the London Hospital.
Hodges, William, of the Bristol School.
Law, A. R., of the Edinburgh School.
Marshall, L. W., of the Bristol School.
O'Connor, T. B., of St. George's Hospital.
Orton, E. W., of the Birmingham School.
Paton, J. W., of the Edinburgh School.
Prankerd, O. R., of the Edinburgh School.
Sayer, C. W., of St. Bartholomew's Hospital.
Shaw, O. S., of Guy's Hospital.
Shuttleworth, John, of the Liverpool and St. Bartholomew's Hospitals.
Stewart, W. H., of the Newcastle School.

It is stated that out of the 161 candidates who have been undergoing their primary examinations in Anatomy and Physiology during the past week no less than twenty-five were referred to their studies for the usual period of three months.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barrs, D. W. M.—[illegible] of the Liverpool Royal Infirmary School of Medicine, Museum.
Darby, De—Physician to the Liverpool Infirmary for Children.
Grossett, C. E., M.B., C.M.—Resident Surgeon to the Edinburgh Royal Infirmary.
Gulliford, J., M.D.—Surgeon to the Wakefield Dispensary.
Littleton, T., M.B.—Physician to the Plymouth Public Dispensary.
Long, J. C., M.A., Cantab., M.B.C.S., L.M., L.R.C.P., L.M. Edin., L.S.A. Lond.—Assistant Physician to the Samaritan Hospital.
Mackay, E. W. W., L.R.C.P. and S. Edin.—Junior Surgeon to the North Shields and Tynemouth Dispensary.
Pratt, J. S. S., L.R.C.P. Edin.—Obstetric Physician to the Bristol Lying-in Institution.
Squire, R. Sydney, M.D., B.Sc.—Resident Medical Officer to the Royal St. Pancras and Northern Hospitals, Caversham-road, Kentish Town, N.W.

NAVAL AND MILITARY APPOINTMENTS.

Bell, John, M.D., Staff Assistant-Surgeon.—Assistant-Surgeon to the Civil Rifle Regiment.
Bell, T. S., Assistant-Surgeon from the Royal Artillery.—Staff Assistant-Surgeon.
Dobie, R. N., M.D., Inspector of Hospitals and Fleets.
Bourke, H. H., M.D., Assistant-Surgeon to the Royal Artillery.—Assistant-Surgeon to the Rifle Brigade.
Cameron, J. R., Inspector of Hospitals and Fleets.
Cotton, J., Surgeon to the Forces.—Staff-Surgeon of Malta.
Dobson, W. I., Assistant-Surgeon to the Royal Artillery.—Surgeon.
Major, N. B., Staff Assistant-Surgeon.—Assistant Surgeon 16th Lancers.
Mapother, W. M., M.D., C.B., Inspector of Hospitals and Fleets.—Assistant Physician to the Queen.
Reid, D. W.—Inspector of Hospitals and Fleets, Malta.

BIRTHS.

Ingram.—On May 1, at 5, Montpellier-villas, Cheltenham, the wife of J. Ingram, M.R.C.S., of a son.
Hall.—On May 1, at 3, Montpellier-terrace, Cheltenham, the wife of Edward Hall, M.B., B.A. Oxon., of a son.
Lowe.—On May 1, at 3, Montpellier-terrace, Cheltenham, the wife of Dr. Lowe, C.B., Deputy Inspector-General of Hospitals, of a son.
Hewlett.—On April 29, at Northwood, Middlesex, the wife of Alfred Hewlett, M.R.C.S., of a son.
Mackay.—On April 29, at 1, Wimpole-street, the wife of W. Mackay, M.D., of a son.
Ingram.—On April 29, at Montpellier-villas, Cheltenham, the wife of A. Ingram, M.B., of a daughter.
Smith.—On April 29, at Bedford, Lieutenant-Colonel P. H. Smith, R.A., M.D., F.R.S., of a son.
Williams.—On April 29, at Manchester, the wife of Dr. J. Williams, M.D., of a son.

MARRIAGES.

Hall—Hall.—On April 27, at Acton, by the Rev. Thomas Hall, M.D., F.R.S., Professor of Natural Philosophy, University College, London, Henry Hall, M.D., to Mary Hall, both of Acton.
Hall—Hall.—On April 27, at St. Mary's Church, Acton, by the Rev. Thomas Hall, M.D., F.R.S., Professor of Natural Philosophy, University College, London, Henry Hall, M.D., to Mary Hall, both of Acton.
Jessel—Slark.—On April 28, at St. Mary's Church, Ealing, W. Jessel, M.R.C.S., of Baldock, Herts, to Annie Elizabeth, only daughter of J. Slark, Esq., Grove House, Ealing. No cards.
Moore—Parker.—On April 29, at Farningham Church, Kent, Dr. F. Moore, M.R.C.S., of Cambridge-heath, London, to Rachel, third daughter of R. E. Barker, Esq., of Farningham, formerly of Hackney, N.
Parsons—Cliffordsmith.—On May 2, at St. Saviour's, Chelsea, by the Rev. W. Niven, B.D., Francis Henry Parsons, Esq., M.D., of Nottingham, to Ellen, only surviving daughter of William Cliffordsmith, Esq., of Exeter-place, Knightsbridge.
Percival—Waite.—On April 30, at St. George's Church, Leeds, by the Rev. J. Blomefield, M.A., Incumbent, Thomas Percival, Esq., M.R.C.S., eldest son of Dr. Percival, of Ripon, to Mary Lucia, second daughter of Richard Waite, Esq., Leeds.
Smith—Downing.—On April 20, at the parish church, Broadwater, C. Smith, M.R.C.S., of Tonbridge, Kent, to Elizabeth Maria, youngest daughter of the late W. Downing, Esq., of St. John's, Southwark.

DEATHS.

Atkinson, H. M., M.R.C.S., of Leeds, on April 28, aged 62.
Brown, Jessie, the beloved wife of Dr. H. Brown, at 11a, York-street, Belfast, on April 24.
Burke, Mrs, the wife of Dr. John Page Burke, R.N., F.R.C.S.E., at Malta, after a few days' illness, on April 16.
Canstatt, Hannah, the beloved wife of N. J. Canstatt, Esq., M.R.C.S., at 12, South place, Finsbury, of apoplexy, on May 2, in the 61st year of her age.
Hall, J. W., Surgeon R.N., of Cheriton-street, St. Pancras, on April 1, aged 77.
Sellors, J. M., M.B., B.A., T.C.D., at Gunneslake, on April 23.

VACANCIES.

Lincoln's Inn Fields Asylum, near Oxford.—Resident Assistant Medical Officer.
Brixton Dispensary.—Resident Medical Officer.
Hospital for Sick Children, Great Ormond-street.—House Surgeon.
Bloomsbury and Holborn Dispensary.—Two Additional Resident House Surgeons.

POOR-LAW MEDICAL SERVICE.

*** The [illegible] District is stated in [illegible]. The population is [illegible] unless otherwise stated.

RESIGNATIONS.

[illegible]—T. Wm. [illegible] District, Wandsworth Union.
[illegible]—M. F. W. [illegible] Workhouse, Wandsworth Union.
[illegible]—Holy Trinity District, [illegible] Union.

APPOINTMENTS.

[illegible]—William A. Foxton, M.B. Edin., M.R.C.S. Edin., to the Islandshire District.
[illegible]—Edward Williams, M.R.C.S.E., L.S.A., to the Workhouse, Great Percy-street, Pentonville.
Northleach Union.—Middleton O'M. Knott, M.R.C.S. Irel., L.R.C.P. Edin., to the First District and the Workhouse.
Wirral Union.—David Russell, M.D. St. And., M.R.C.S. Edin., L.S.A., to the Workhouse.

University of Cambridge.—Natural Science Scholarships.—Four scholarships have lately been given in Cambridge for Natural Science: one in Trinity College, of the value of £80 per annum, to Mr. Payne; two in St. John's College, of the value of £80 per annum, to Oswald and Edmunds; and one in Downing College, to J. C. Saunders. A scholarship of the value of £60 per annum, is also offered by St. Peter's College. The examination (in Botany, Chemistry, and Comparative Anatomy) will be open to any students who are not already members of the University, or who have not commenced residence. It will take place on Tuesday, June 1. Candidates must send their names and testimonials of moral character to Rev. J. Porter, tutor, St. Peter's College, Cambridge, from whom any further information may be obtained.

University of London.—The following gentlemen have been elected Examiners in Medicine and the allied sciences for the year 1868-69:—*Chemistry:* Henry Debus, Esq., Ph.D., F.R.S., and Professor A. W. Williamson, Ph.D., F.R.S. *Botany and Vegetable Physiology:* Rev. M. J. Berkeley, M.A., and Thomas Thomson, Esq., M.D., F.R.S. *Geology and Physiography:* Archibald Geikie, Esq., F.R.S., F.G.S., and Professor T. Rupert Jones, F.G.S. *Practice of Medicine:* Professor J. Russel Reynolds, M.D., and Samuel Wilks, Esq., M.D. *Surgery:* Professor Le Gros Clark, and Professor John Eric Erichsen. *Anatomy:* Professor William Turner, M.B., F.R.S.E., and J. L. Wood, Esq., F.R.C.S. *Physiology, Comparative Anatomy, and Zoology:* Professor Thomas H. Huxley, LL.D., F.R.S., and Henry Power, Esq., M.B. *Midwifery:* John Braxton Hicks, Esq., M.D., F.R.S., and Professor William Overend Priestley,

M.D. *Materia Medica and Pharmaceutical Chemistry.*—Professor Alfred Baring Garrod, M.D., F.R.S., and Samuel Cooper Habershon, Esq., M.D. *Forensic Medicine.*—E. Lyndon Greenhow, Esq., M.D., and Thomas Stevenson, Esq., M.D.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentlemen have been elected as Examiners for Letters Testimonial and Fellowship:—John Barker, Christopher Fleming, Benjamin W. Richardson, Edward A. Stoker, T. Jolliffe Tufnell, Edward S. O'Grady, Maurice H. Collis. As Examiners in Midwifery:—John Cronyn, James Isdell, Edward J. Quinan. As Examiners in General Education:—Thomas Byrne, John Murray, George F. Shaw.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the annual meeting on Friday, May 1, W. Pole, Esq., F.R.S., in the chair, the annual report of the Committee of Visitors for the year 1867 was read and adopted. The books and pamphlets presented in 1867 amounted to 131 volumes, making, with those purchased by the Managers, a total of 319 volumes added to the library in the year, exclusive of periodicals. Forty new members were elected in 1867. Sixty-three lectures and twenty evening discourses were delivered during the year 1867. Thanks were voted to the President, Treasurer, and Secretary, to the Committees of Managers and Visitors, and to the Professors, for their services to the Institution during the past year. The following gentlemen were unanimously elected as officers for the ensuing year:—*President:* Sir Henry Holland, Bart., M.D., D.C.L., F.R.S. *Treasurer:* William Spottiswoode, Esq., M.A., F.R.S. *Secretary:* Henry Bence Jones, M.A., M.D., F.R.S. At the general monthly meeting, held on Monday, May 4, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair, the following Vice-Presidents were nominated for the ensuing year:—W. R. Grove, Esq., General Sabine, Sir Charles Wheatstone, and William Spottiswoode, Esq., F.R.S., the Treasurer. William Anderson, Esq., LL.D., Captain N. D. C. F. Douglas, Frederick Green, Esq., Swann Hurrell, Esq., and John Edward Taylor, Esq., were elected Members of the Royal Institution. The following Professors were re-elected:—John Tyndall, Esq., LL.D., F.R.S., as Professor of Natural Philosophy, and Edward Frankland, Esq., Ph.D. F.R.S., as Professor of Chemistry. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

HONORARY FELLOWS OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Society has nominated as Honorary Fellows Sir Charles Lyell, Mr. Darwin, Dr. J. D. Hooker, Professors Huxley and Tyndall, Baron Larrey, M. Nélaton, Professor Kölliker, and Dr. Gross, of Philadelphia.

ULSTER MEDICAL SOCIETY.—The annual meeting of the Ulster Medical Society for receiving the report and for the election of office-bearers, was held on Friday evening last, in the Society's room, at the General Hospital. The following are the office-bearers elected for the present year:—*President:* Professor Cuming, A.M., M.D. *Vice Presidents:* (for town) Henry Whitaker, M.D., and John M'Crea, A.M., M.D.; (for country) Archibald Dunlop, M.D., Holywood; and John Kelso, M.D., Lisburn. *Treasurer:* William MacCormac, A.M., M.D. *Secretaries:* John Moore, M.D., and James Hill, M.D. *Other Members of Council:* Robert Stewart, M.D.; James Patterson, M.D.; Jas. Moore, M.D., M.R.I.A.; Angus M. Porter, M.D.; Hugh P. Rea, M.D.; and John Fagan, L.K., Q.C.P.I.

THE POPE'S MEDAL OF HONOUR.—The Pope has ordered that the medal of honour conferred on the Medical men who distinguished themselves during the cholera visitation last year be also granted to those Jewish Doctors who have equally deserved it.

THE SOUTHPORT CONVALESCENT HOSPITAL.—Drs. M'Nicoll and Woods, on retiring from active duties on the Medical Staff, have been appointed Consulting Medical Officers to this institution; and Dr. Lang has been elected Honorary Medical Officer in the vacancy caused by the retirement of Dr. M'Nicoll.

THE CONTAGIOUS DISEASES ACT.—Tuesday's *Gazette* contains the following announcement:—"War-office, May 5. The Secretary of State for War has appointed J. C. Barr, Esq., M.D., to be Visiting-Surgeon under the Contagious Diseases Act, 1866, at Aldershot, from the 11th inst., vice William Perry, Esq., Surgeon, Royal Artillery, whose duties under the Act will cease after the 10th inst."

THE BRITISH HOME FOR INCURABLES.—The contributions in aid of this charity, announced at the festival dinner, amounted to £2500.

GWYNNE HARRIES, Esq., M.D. Lond., has been appointed under the Merchant Shipping Act, 1867, Medical Inspector of Seamen for the port and district of Milford.

PROFESSOR LE GROS CLARK.—This gentleman will commence his course of six lectures on the "Principles of Surgical Diagnosis, especially in reference to Shock and Visceral Lesions," on Monday, June 1, in the theatre of the Royal College of Surgeons.

ON Monday last the members of the Staff of the Westminster Hospital entertained Mr. Henry Power at a farewell dinner, on the occasion of his resigning his connexion with the school of which he has for many years been one of the principal ornaments. Dr. Basham presided, and in a feeling speech proposed the toast of the evening, which was heartily responded to.

NEURINE FORMED SYNTHETICALLY.—In a memoir quite recently presented to the French Academy, M. Wurtz communicated some further researches on this point. He has now succeded in demonstrating that the synthetical neurine is identical with that prepared from ordinary brain substance. He bases this identity on the fact that the chemical reaction and crystalline form of the two substances are exactly the same.

THE ST. PANCRAS DISTRICT MEDICAL OFFICERS.—The Pancras guardians have determined on a new arrangement of the districts among which the sick poor of the parish are divided. Hitherto the divisions have, like the salaries, been unequal. Six districts of different areas have had six Medical officers, four of whom received £150 per annum, and two only £100. Henceforth the districts will be equalised, and each of the Medical officers will receive a salary of £150 per annum. The Medical officers will have to supply all the drugs, except quinine and cod-liver oil. This rule, and also that limiting the appointments to twelve months only, are, we should think, objectionable.

WONDERFUL PHYSIQUE.—The *Pioneer of India* asserts that the Tibetan couriers ride for three weeks with intervals of only half an hour to eat and change horses. It is the duty of the men in charge of the official Dak bungalows to see that the courier makes no delay, and to forward him—no matter in what condition he may be—to the next station. In carrying out these orders they are often compelled to tie the unhappy courier upon his horse, and so, living or dead, make him complete his journey. All this may be true, but really three weeks night and day in the pigskin does look a little like some of Baron Munchausen's wonderful exploits.

NON-REGISTRATION OF THE CAUSES OF DEATH IN FRANCE.—M. Legoyt, in his report on the condition of statistical inquiries in France, addressed to the International Statistical Congress held at Florence, while exhibiting how elaborate these are on almost all subjects, observes that "returns on the causes of death, collected with more or less exactness by some other countries in Europe, only exist in France for a few of the large towns. The members of the Medical Profession have everywhere else refused to comply with the solicitations of the Administration, on the grounds either of the exigencies of Professional secresy or doubts as to the scientific value of certificates of the causes of death. Some have expressed their wish that these should be only furnished on payment of a fee either by the family of the deceased or by the municipality. Perhaps it would be desirable to render the delivery of such certificates compulsory by law; and the Academy of Medicine, consulted on this point, has replied affirmatively."

THE BREAST AS A PINCUSHION.—M. Ricord, during a recent discussion on the penetration of foreign bodies, related the following anecdote:—The celebrated actress, Madeleine Brohan, suffered from a tumour of the breast which puzzled her various Doctors as to its nature. The diagnosis wavered between an adenoid tumour and one of a scirrhous nature; but, before consenting to an operation, she consulted Ricord. He examined the breast with the most scrupulous care, and presently felt certain that a needle lodged in the substance of the organ was the source of the mischief; for during his examination he felt the end of his finger pricked by the foreign body. To force the needle to project outwardly, and then to extract it, was the work of an instant. Great was the amazement of the patient, who had no idea how the accident had happened, and the clever operator on leaving cautioned her in future not to place her needles on such a pincushion. The tumour rapidly disappeared.

ANECDOTE OF THE LATE M. RAYER.—"M. Rayer was kind and affable, and very accessible, but that together with the dignity suitable to the ministers of our art, and which he never allowed to be compromised before him and in his person. Among his connexions, however elevated, he insisted that the profession he represented should be respected in his person. One day, at the table of a great financier, the amphitryon, wishing to give proof of his erudition, addressed him thus:—'Is it not true, Doctor, that Medicine was only practised at Rome by freedmen?' 'Yes,' replied Rayer, 'but that was the period when Mercury was the god of the thieves and the bankers.'"—*M. Lutaud's Eloge de Rayer.*

THE LONDON HOSPITAL DINNER.—On Wednesday evening upwards of 200 gentlemen sat down to dinner in the grand hall of the Cannon-street Hotel, under the presidency of Mr. Gladstone. The object of the meeting was the securing of aid for the funds of the London Hospital, whose expenditure largely exceeds its fixed income. The eloquent and heart-stirring appeal made by Mr. Gladstone was amply responded to, for as much as £6500 was collected at the meeting. The room itself is one of the finest in London, and would seem to divert a considerable amount of custom from the London Tavern; however, the number of guests on Wednesday would seem to have paralysed or exceeded the resources of the establishment, for there was far too much hurry and confusion for one to dine comfortably.

WORKSHOPS' REGULATION ACT.—On Thursday, the 30th ult., Dr. Aldis, Officer of Health for St. George's, Hanover-square, summoned a Bond-street milliner before Mr. Tyrwhitt, at Great Marlborough-street, for employing young women beyond the stipulated number of hours named in the Workshops' Regulation Act. The defendant said that she was sorry that she had contravened the Act in ignorance; but having a very heavy mourning order on hand she could not avoid it. She would plead guilty to the summons. Dr. Aldis said that, as it was the first case under the Act, he had no wish to press for a penalty, but would be quite content to leave the matter in the hands of the magistrate; but at the same time he had to ask for costs. Mr. Tyrwhitt said that it was the first case under the Workshops' Regulation Act which had come before him, but it was most essential that the Act should be carried into effect, as every one had heard of the sufferings of milliners and dressmakers during what was called "the season." He would deal with the case as desired, but he did so reluctantly, as he considered it an Act which should be strictly enforced, and that it was not a matter to be dealt with too leniently. He hoped the case would act as an example to others, and that it would get publicity. The defendant would have to pay the costs.

INVALIDS FROM INDIA.—The *Serapis* arrived at Portsmouth April 28, with between 500 and 600 invalid and time-expired soldiers of different corps, 120 women, and about 280 children. Eighty or ninety cases of measles occurred during the voyage, children labouring under that disease having embarked at Kurrachee. Six children died of measles and dysentery. One woman died after abortion. Only one case of measles and no deaths occurred among the men. We have been informed that in addition to the prevalence of measles among the children, most of them were in a very neglected state; many laboured under ophthalmia, and in several instances they presented the appearance of having for a long time been insufficiently nourished. The women and children were chiefly from the 4th and 33rd Regiments, having been left behind when those regiments went to Abyssinia, and we are informed that, although the Indian Government supplied rations and a monthly allowance in money to each family, the women in many instances led a most irregular and intemperate life, and that thus the neglected state of the children may be accounted for. Such has been the invariable experience when our troops in India have been ordered on service. The temptations and opportunities for immorality in Indian cantonments being much greater than at home, it would certainly be much to the credit of our military authorities, and of the nation at large, if, when families are unavoidably left behind when troops go on service, some system of supervision and organisation could be devised. Thirty children labouring under measles disembarked at Portsmouth. The invalid soldiers, about 120 in number, proceeded to Netley.

DONATIONS TO MEDICAL CHARITIES.—The Marquis of Westminster has presented to the Royal Hospital for Incurables, at Putney-heath, £1000, being the third gift of the same amount made by his Lordship to this institution. The following legacies have been bequeathed by the late Felix Slade, Esq., of Doctors'-commons, Walcot-place, Lambeth, and Halsteads Thornton, Yorkshire:—To University College Hospital £500, and a similar amount to the building fund of the same institution; to the Leeds Infirmary £300; the London Truss Society £200; the South London Dispensary £100; and a similar amount to each of the following institutions, viz.:—The Hospital for Women and Children, Waterloo-road; the Surrey Dispensary; the Royal Medical Benevolent College, Epsom; the Hospital for Skin Diseases, Bridge-street, Blackfriars; the Royal Free Hospital, Gray's-inn-road; the British Home for Incurables; the Charing-cross Hospital; the General Lying-in Hospital; the Metropolitan Convalescent Hospital, Sackville-street; the Sea-bathing Infirmary, Margate; and the Seaman's Hospital Ship *Dreadnought*. This gentleman further bequeaths £2000 to his executors to distribute in public charities as they may think proper, and directs all payments to be made free of duty. Mr. C. S. Crowley, the Alton ale brewer, has left nineteen guineas each to the Royal Orthopædic Hospital and the St. Marylebone Female Dispensary. Mr. C. G. Round, late M.P. for North Essex, has bequeathed £250 to the Essex and Colchester Hospital, free of legacy duty.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A [illegible] is chiefly in his art, but points will [illegible] The Medical man who is ashamed in the sick-chamber of the matter in question [illegible]

D. G. [illegible]—The MS. has been received and shall [illegible]

[illegible] Dr. Mayo's Letter, p. 190.—"It is my unwavering aim to [illegible] my Professional knowledge" should be "it is my unwavering aim to [illegible] my Professional knowledge."

W. H.—In reply to your inquiry respecting the most [illegible] next to it time for [illegible] They require perseverance [illegible].

T. Private Soldier's Estimate of Army Doctors.—It is a [illegible] to suppose that British soldiers are the only [illegible] Army Doctors. The fact is, that the idea of the army Doctor is equally applicable to the military and to that of the man who has had to [illegible] at the last for the [illegible] skill. Every one who has read these delightful [illegible] by Erckmann and Chatrian will remember those characteristic "Conscrit" which describe the French military hospital; how Rose Lebrun [illegible] in hand, over a pot of tea, who was waiting to [illegible], to gossip with [illegible] who happened to pass the door of the shed in which the wounded were collected. What can be more lifelike than the grumbling which the wounded veteran poured into the ear of the conscript in the next bed? "Mind, Joseph, never swallow any of their drugs! They take off shiverings and fever terribly!" The [illegible] on the villainous drugs which the Doctors concoct. Do you see that tall [illegible] Doctor? He may brag of having killed more men than the [illegible] in the army; but a little less than [illegible] I would give the Emperor him over to the Russians, for he would kill more than a whole *corps* [illegible]. But this kind of [illegible] is not confined to the army and navy; it is common to all establishments which [illegible] The [illegible] man who provides Meat [illegible] hold whose servants do not object to the "house Doctor," simply because he is house Doctor. Human nature always is prone to grumble at [illegible] and [illegible] terests of his employers as a check upon his patients. Yet these ebullitions of pettishness do not prevent soldiers of all ranks from bearing witness to the tenderness, devotion, and skill of their Doctors, when these great qualities are brought to the test of actual service.

The [illegible] Hospital for [illegible] was founded in 1851, chiefly for the benefit of the East-end of London, and, after lodging [illegible] on its present premises, situated a mile and a half from Ascot station, in [illegible] It is capable of receiving thirty to forty patients, with unusually large cubic space to each patient, and there are houses in the grounds which can be converted into smaller Hospitals. During the outbreak of the [illegible] Hospital [illegible] and chaplain [illegible] the [illegible] Hospital [illegible] something, is [illegible] The [illegible] Hospital, St. Saviour's, [illegible], N.W., will thankfully receive donations or subscriptions.

We have received for publication the following resolution, which has been adopted by the Northern Medical Society of Liverpool, and forwarded to Mr. Bazley, M.P. :—

Resolved,—That we, the members of the Northern Medical Society of Liverpool, having had our attention drawn to certain recent cases wherein certificates of death had been obtained by persons interested in such deaths, whereby individuals to whom the certificates referred were actually buried, have directed the attention of the Legislature to the form of certificate (herewith enclosed) as now supplied to Medical Practitioners. That, while anxious to supply to the registrar all the scientific information in our power as to the probable cause of death in any case where we may have been in attendance, we respectfully submit that we should not be asked to certify to the age "last birthday," or to the fact "that he died on ," inasmuch as such information is in all cases supplied to [illegible] for the certificate. That it would tend materially to [illegible], and oppose a serious barrier to the very alarming spread of infanticide, if an inspector of deaths were appointed for each district, that his duty should be to ascertain that the reported death has actually taken place, and then to apply to the Medical attendant for a certificate as to the probable cause of death. That the amended form of certificate herewith enclosed supplies all the actual information in our power, and is free from the objections above enumerated.

To the Registrar of the Subdistrict in which the death took place.

I hereby certify that I attended , whose death has been reported to me by ; that I last saw him , 18 , and that I believe the cause of his death to have been .

Cause of Death.	Reported age.	Time from attack till death.	
A First			*Particular title* .....
			Address .....
B Second.			*Date* .....

Honorary Members of the Apothecaries' Society.—The person named has assumed that title in one of the supplementary works.

Obituary.—Examinations are now only held [illegible] per annum. The Board will next meet on the 27th inst. Write to the Secretary for further [illegible]. The Board is composed of Mr. Quain, the Senior Vice President, as Chairman, and Drs. Barnes, Farre, and Priestley. The examination is less [illegible] than thoroughly practical.

Medical Curiosity.—Ralph Bathurst, M.D., was born in 1620, died in 1704; he was a Poet, Wit, and Divine. Locke, who wrote on the understanding, Sir Christopher Wren, architect, Smollett, and Oliver Goldsmith, all belonged to our Profession.

Vaccine.—The Small-pox Hospital was opened just a century ago—viz., 1768, and in the first year it promulgated vaccination. There are several portraits of him, but an engraving is not very scarce.

Architectural.—You should read the recent memoirs of Sir Charles Barry, who rebuilt the College of Surgeons. The portico was not removed. It remains in the same place as it did in the old building; only a column was removed from the west to the east side.

Riots.—In 1768 the Mayor became so prevalent in the City that the King commanded the Mayor and Sheriffs to issue a proclamation that every Papist must remove himself and family from within fifteen days. You will find [illegible] in Brayley's "London and Middlesex."

ST. THOMAS'S OLD STUDENTS' DINNER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly permit us to make it known that the subcommittee appointed to make arrangements for the old students' dinner delayed fixing the date until the last moment in the hope that it might be held on the day of laying the foundation stone of the new Hospital or on the day immediately preceding that occasion, and it was only when they found that [illegible] their impossible to make the two events concur that they selected Thursday, May 21.

Their aim has been from first to last to consult the convenience and wishes of those students who reside at a distance as well as those in town, and they fixed upon a Thursday in accordance with the opinion expressed at the committee meeting held March 6, that Thursday would be the most convenient day of the week for all parties.

The dinner will take place on May 21, at 6 p.m., as advertised by order of the subcommittee,

J. WYLE HICKS, B.A., M.D.,)
W. WARWICK WAGSTAFFE, B.A.,) Hon. Secs.

DOCTORS OF EMIGRANT SHIPS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am one of that unenviable and unfortunate class of individuals known as "Doctors of emigrant ships," on board of which I am cribbed, cabined, and confined, ten out of every twelve months in the year. I have crossed the Atlantic regularly for the last twelve years, and I have just returned from my last trip, during which I had 1200 souls under my charge. The wailings, the piercing screams, the prayers, the heart-rending cries and sobs of this huge family during a storm or in case of accident can be more easily imagined than expressed; and the good Doctor is always most imploringly appealed to to protect, comfort, and console them. Within the last five years four of my old ships have gone down—two with all on board; and it is remarkable that this should have occurred on the first or second voyage after my leaving them for another vessel. Two years ago I had sixty deaths on board my ship from cholera (German emigrants). Six years ago I had [illegible] cases—occasionally something to do—and my full share of anxiety of mind, etc., and for all this monotonous, weary, and risky duty, I get—would you believe it, Sir?—£10 per month! Why, even the barkeeper and four or five other officers are better paid than the Doctor. Now, why should this be so? Can nothing be done for us? And how would you ventilate the subject so as to bring us more upon a level with our army and navy Professional brethren?

I am, &c. H. G. H., M.R.C.S.

May 6.

THE NEW SYDENHAM SOCIETY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Trousseau's works are of undeniable value; yet it surely is a great waste of force for the Sydenham Society to purchase a book already published. The real use of such a society is surely not to pay an ordinary bookseller's bill, but to render works accessible to its subscribers which are not to be found in the market, because no publisher will undertake them.

I am, &c. A MEMBER.

CURE FOR BOTHRIOCEPHALUS LATUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would your correspondent, "H. R. M.," be so good as to inform me from what kind of pumpkin the seeds are to be obtained, as I should like to try his remedy with every chance of success?

I am, &c.

20, Kingsland crescent, May 6. W. H.

SHOULD BITTER BEER BE TAKEN DURING A FULL MEAL?—SWEET PRESERVED BISCUITS A CAUSE OF DYSPEPSIA, AS ALSO MIXED WINES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I believe the general opinion in the present day is, that bitter beer may be taken indiscriminately during a full meal; but, as far as my own observations have gone, I believe that great care is required in the use of that beverage.

My suggestion is supported by the fact that bitters of all kinds possess the property of arresting fermentation, and it is well known that hops are added to malt liquor to arrest fermentation—*i.e.*, to prevent the vinous fermentation from passing into the acetous. If, therefore, the process of digestion is allied to fermentation, we should not recommend bitter beer to be taken during a full meal. If, however, preference is given to bitter beer during a full meal, I would suggest that the quantity should be limited, or an equal quantity of water to that of beer should be drunk when persons require rather a large quantity of fluid for the assimilation of food. To mix beer and water together is very insipid to the taste; but they may be taken separately, and perhaps it is best to allow the water to precede the malt liquor.

It is expedient that we should keep a careful watch over our patients in order to know what articles of food give rise to dyspepsia, which functional derangement, we know, shows itself in such a variety of forms as sometimes to baffle all our efforts to subdue. Whether dyspepsia has a local, cerebral, or other origin, I will not venture to say; but observations enable me to state that I have often found some of the most serious diseases, such as phthisis, cancer, albuminuria, etc., to have been preceded by continuous derangement of the digestive functions, as if, so to say, the germ of the disease was generating itself in the stomach to lay the foundation of a permanent disease.

To remove, then, all exciting causes of dyspepsia or diseases in general is the duty of every Physician; otherwise the science of therapeutics becomes degraded by our powerlessness, and the public entertain the notion that Medicine has no scientific truth for its foundation. But it should be impressed that there are many visible and invisible causes of disease which we cannot remove; hence the power which is given us over disease is limited, though great.

In the heading of this letter, I have mentioned that one of the most simple articles of diet (the sweet biscuits sold by grocers) is liable to give rise to dyspepsia, and I have found it necessary to caution my patients against their use, especially when taken, as they frequently are, before retiring to rest. In justice, however, to the manufacturers of the biscuits, I believe that they are not so liable to produce indigestion when the tins in which they are preserved are first opened; but, after prolonged exposure to the air, or by frequent exposure even when kept in tin canisters, they are liable to undergo a change which renders them indigestible. My observations have been made over a period of years, and one of the most remarkable and isolated cases of cholera, which I met with in a child during the epidemic of 1866, appeared to have been developed by eating a number of the small sweet biscuits. I may have occasion to allude to this case in another communication, but I will briefly state that the biscuits could not have produced the attack of cholera, but gave, as it were, in my opinion, the impulse to choleraic fermentation, believing, as I do, that, during the prevalence of epidemic cholera, the germinal matter of the disease is generated in the stomach in a greater or less degree in every individual, residing in the locality where the disease prevails, and circulates in the blood, acting upon the nervous system, etc.

If not trespassing too largely on your valuable columns, I would suggest to the Profession the necessity of cautioning wine-merchants against mixing different kinds of wine, which is frequently done with a view of improving their flavour.

As there is the greatest liability of such mixtures producing fermentation in the stomach of our patients, it becomes a duty on our part to protest against it. I have often tried the experiment by mixing a wineglass full of good sherry with a bottle of good Marsala. When these wines are taken separately (but not at the same time so as to come in contact in the stomach) no fermentation takes place, but after being mixed the wine undergoes acetous fermentation, producing what is commonly called "spasms, heartburn, etc." I have also tried the experiment by mixing two different kinds of good vinegar, when putrefactive fermentation is the result; and if pickles are preserved in such mixed vinegars, they undergo decomposition.

If good Marsala wine can be obtained, it is less liable to undergo acetous fermentation in the stomach than ordinary sherry wine. Moreover, it affords greater support to the stomach, and appears to possess some slight narcotic property, producing sleep after undue excitement or over-exhaustion from fatigue; but if it has been flavoured with Malaga or sherry wine, dyspeptic fermentation is the result. A patient of mine found sherry at 48s. per dozen turn acid on his stomach, causing great distress. I recommended him to try Marsala wine, which he took to the extent of

[illegible] brandy, etc.

I am, &c.

Southampton, March 16. HENRY [illegible], M.R.C.P. Lond.

COMMUNICATIONS have been received from—

Mr. J. SAMS; H. R. M.; Prof. BENNETT; Mr. ARTHUR DURHAM; Mr. BAINES; Messrs. DE LA RUE; Dr. MARSHALL; Dr. J. BARNARD HOWE; Dr. F. GRACE CALVERT; Mr. G. T. MOGGETT; Dr. GORDON; U. J.; Dr. A. S. BILLING; Dr. J. G. [illegible]; Dr. [illegible]; Dr. C. M. TIDY; Dr. MARCHANT; Dr. MACILWAIN; Mr. ROBERT RAWLINSON; Dr. MACKINTOSH; Dr. W. M. BANKS; Mr. W. W. REEVES; Mr. JOHN PRIDEAUX; Mr. J. W. SPICER; H. G. H.; Dr. D. W. PALMER; Messrs. CHANCE BROTHERS; Mr. ARTHUR ASHPITEL; W. H.; Mr. W. TRELOAR; SURGEON-MAJOR NORTH; Mr. A. F. ADAMS; Dr. J. CHATTO; Dr. J. HUGHLINGS JACKSON; Dr. WILKS; Dr. ALLBUTT; Mr. STONE; Dr. BALMANNO SQUIRE; Dr. CHOLMELEY; Dr. DAY.

BOOKS RECEIVED—

Edinburgh Medical Journal—Dictionary of Chemistry, part 15—HOPE'S Medical Evidence in Railway Accidents—The Corset and the Crinoline—Galloway's Key to First Step in Chemistry—Medical Mirror, No. 53—New York Medical Journal, April—Klob's Pathological Anatomy of the Female Sexual Organs—Stirling on Materialism in relation to the Study of Medicine—Pharmaceutical Journal, No. 153—[illegible] Hospital Return—Co-operation Exposed—Water Supply of Chelmsford.

NEWSPAPERS RECEIVED—

Stockport Independent—Somerset and Wilts Journal—The Grocer—Medical Press and Circular—The Parochial Critic—Public Health—Gardener's Chronicle—Treacher's Brighton Record—Belfast News-letter—Northern Star.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 2, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the Week ending May 2.	Deaths. Corrected Average Weekly Number	Deaths. Registered during the Week ending May 2.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	12[illegible]	49 1	2[illegible]	1141	1 [illegible]	74·4	38·7	53·0	0·12	12
Bristol (City)	1[illegible]	35 7	1[illegible]	75	69	..	..	..	..	..
Birmingham (Boro')	3[illegible]	45 [illegible]	281	171	166	[illegible]	29·4	50·[illegible]	0·15	13
Liverpool (Borough)	5[illegible]	38 0	[illegible]	296	336	67·4	37·7	50·0	0·15	15
Manchester (City)	2[illegible]	31 8	[illegible]	2[illegible]	[illegible]	73·0	[illegible]	51·[illegible]	0·[illegible]	[illegible]
Salford (Borough)	117162	22 7	87	[illegible]	52	69·0	34·7	49·0	0·25	28
Sheffield (Borough)	2[illegible]	16 2	182	12[illegible]	109	[illegible]	[illegible]	51·4	0·46	47
Birmingham (Boro')	108019	16 4	[illegible]	5	[illegible]	..	..	..	..	..
Leeds (Borough)	2[illegible]	11 0	195	12	112	76·5	35·5	[illegible]	0·10	10
Hull (Borough)	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	..	..	..	..	..
Newcastle-on-Tyne (Boro')	127701	25 9	[illegible]	68	61	[illegible]	36·0	47·1	[illegible]	[illegible]
Edinburgh (City)	177039	40 0	126	[illegible]	77	[illegible]	[illegible]	[illegible]	[illegible]	71
Glasgow (City)	4[illegible]	[illegible]	411	2[illegible]	268	[illegible]	29·0	47·7	[illegible]	[illegible]
Dublin (City and some suburbs)	31[illegible]	32 8	185	157	134	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total of 14 large Towns	[illegible]	[illegible]	184[illegible]	[illegible]	[illegible]	73·0	[illegible]	[illegible]	[illegible]	[illegible]
					Week ending April 25.	Week ending April 25.				
Vienna (City)	(1863) [illegible]	..	..	..	[illegible]	..	..	..	..	..

[illegible]

[illegible]

[illegible]

[illegible]

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 2, 1868.

BIRTHS.

Births of Boys, 1[illegible]; Girls, 1[illegible]; Total, 2[illegible]
Average of 10 corresponding weeks, 1858-67, 1[illegible]

DEATHS.

	Males.	Females.	Total.
Deaths during the week	[illegible]	[illegible]	1[illegible]
Average of the ten years 1858-67	[illegible]	[illegible]	1[illegible]
Average corrected to increased population	..	..	1[illegible]
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.	Cholera.
West ..	468,888	3	11	6	3	7	4	1	..
North ..	618,210	8	7	9	3	12	16	4	..
Central	375,058	1	7	1	..	3	7	2	..
East ..	571,158	4	[illegible]	2	3	[illegible]	16	4	..
South ..	773,175	7	21	11	4	25	9	2	..
Total ..	2,[illegible]	23	[illegible]	29	13	56	49	13	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	[illegible] in.
Mean temperature	[illegible]
Highest point of thermometer	[illegible]
Lowest point of thermometer	28·7
Mean dew-point temperature	[illegible]
General direction of wind	W.S.W.
Whole amount of rain in the week	0·12

APPOINTMENTS FOR THE WEEK.

May 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9 a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.
ROYAL INSTITUTION, 3 p.m. Prof. Bain, "On Popular Errors."

11. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

12. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 2 p.m.
ETHNOLOGICAL SOCIETY, 8 p.m. [illegible], "On the Chinese Nation at Home." John Crawfurd, Esq., "On Migration and History of Coffee, Tea, Cocoa, etc."
ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."
ROYAL METEOROLOGICAL SOCIETY, 7 p.m. Dr. [illegible], "On the Causes of Cyclones, and the Use of the Knowledge of Them in Navigation." Dr. Pritchard, "On the Use of Chronometers in Ascertaining the Rate of Chronometers."

13. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; West London, 2 p.m.; Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 1 p.m.; Samaritan Hospital, 2 p.m.
[illegible]
[illegible]
MICROSCOPICAL SOCIETY, 8 p.m. Mr. [illegible], "On Some Recent Improvements in Microscopes." Mr. [illegible], "On Vegetable Substances Used as Adulterations, and Their Application in Artificial Minerals."
[illegible]

14. Thursday.

[illegible]
ROYAL INSTITUTION, 3 p.m. Prof. Bain, "On Popular Errors."

15. Friday.

[illegible]

ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery at the Royal College of Surgeons.

Lecture XII.—Part II.

TURNING CONTINUED.—THE THREE ACTS OF BI-POLAR PODALIC VERSION.

We have now to proceed to the operation of bi-polar podalic version. In the case we have assumed, the head is over the os uteri; the os uteri is open enough to admit the play of two or three fingers; the liquor amnii is still present, or has been only recently and partially discharged. Turning is indicated by symptoms threatening danger to the mother. The preparations necessary have been made. One thing more I have to insist upon; it is to avoid all parade or fuss in your conduct. Make your preparations as quietly and unostentatiously as possible. Do all that is essential, and no more. Tell the patient and her attendants that you find it necessary to help the labour. But let your help be so given as to involve the least possible changes from the usual proceedings in ordinary labour.

When the patient is in position, and under chloroform, if it be determined to give it, slip off your coat, turn up the shirt-sleeves above the elbows, anoint with oil, lard, or pommade the back of the left hand and all round the wrist; insinuate a piece of lard into the vulva.

The Introduction of the Hand.—Bring the fingers together in the form of a cone; pass in the apex of this cone, gently pressing backwards upon the perinæum, and pointing to the hollow of the sacrum. If you find any difficulty—as you probably will if the case be a first labour—you must watch for the most fitting opportunity. Wait till a pain comes on. There is good reason for deferring to the popular idea of "taking a pain." The pain caused by expulsive action will partly mask that caused by the manœuvre; and expulsive action tends to produce sphincteric relaxation, so that the passage of the hand will be actually facilitated. A source of difficulty is the tendency of the labia and hair to turn inwards before the fingers. This is counteracted by drawing the labia open by the thumb of the right hand, by an action similar to that you would use to lift up the closed upper eyelid. The passage of the vulva is often the most difficult part of the operation. It is commonly necessary to pass the entire hand into the vagina; and great gentleness and patience are required. I have, indeed, turned and extracted a mature child without passing in more than two fingers, without even turning back or soiling the cuff of my coat; but the circumstances must be favourable to admit of this.

We have now got as far as the orifice of the uterus, and it is an immense improvement in obstetric art that we are able to complete the operation without pressing the whole hand through this part. The *first act* begins by passing the tips of the first two fingers through the os to the presenting part, which we assume to be the head. We ascertain to which side of the pelvis the occiput is directed, for it is to that side that we must send the head. At the same time, an assistant holding up the right leg at the knee, so as to give you freedom of action, you apply your right hand spread out over the fundus uteri where the breech is. And now begins the simultaneous action upon the two poles of the fœtal ovoid; the fingers of the hand inside pressing the head-globe across the pelvic brim towards the left ilium, the hand outside pressing the breech across to the right side and downwards towards the right ilium. The movements by which this is effected are a combination of continuous pressure and gentle impulses or taps with the finger-tips on the head; and a series of half sliding, half pushing impulses with the palm of the hand outside. Commonly, you may feel the firm breech through the abdominal walls under the palm, and this supplies a point to press against. A minute sometimes, seldom much more, will be enough to turn the child over to an oblique or nearly transverse position; the head quitting the os uteri, and the shoulder or chest taking its place.

This act may be divided, for the sake of illustration, into two stages.

Fig. 58.

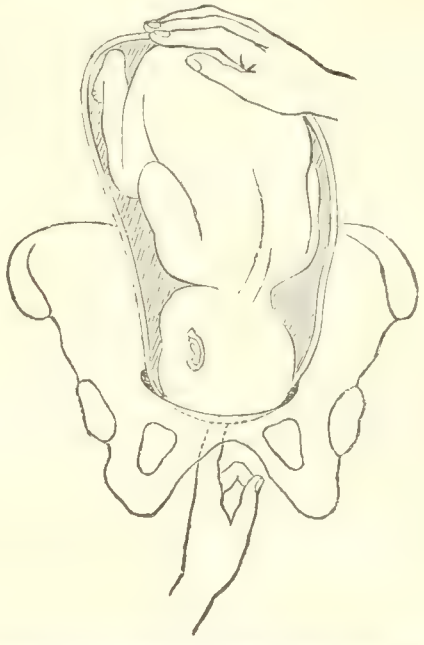

Fig. 58 represents the first stage of bi-polar podalic version. The right hand on the fundus uteri pushes the breech to the right and backwards, bending the trunk on itself. The left-hand fingers on the vertex push the head to the left ilium, away from the brim.

Fig. 59.

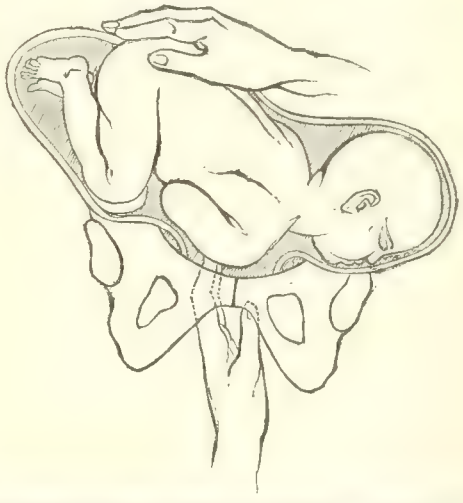

Fig. 59 represents the second stage of the first act. The right hand, still at the fundus uteri, depresses the breech, so as to bring the knees over the brim, whilst the left hand pushes the shoulder across the brim towards the left iliac fossa.

At this stage it is important to keep the breech well pressed down, so as to have it steady whilst you attempt to seize a knee. This is the time to puncture the membranes, if not already broken. The fingers in the os uteri are pressed through the membranes during the tension caused by a pain, and you enter upon the

Second Act, the *seizure of a knee*. Which knee will you take? In the particular case we have to deal with, it is not of much importance which you seize, but the further is, on the whole, to be preferred. You will observe in the diagrams Figs. 58, 59, 60, that the legs, doubled up on the abdomen, bring the knees near the chest, so that, as soon as the head and shoulder are pushed on one side, the knees come near the os uteri.

FIG. 60.

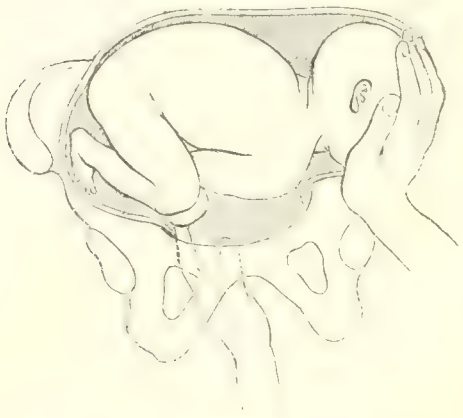

Fig. 60 represents the second act. The trunk being well flexed upon itself, the knees are brought over the brim: the forefinger of the left hand hooks the ham of the further knee, and draws it down, at the same time that the right hand, shifted from the fundus uteri to the breech, is applied, palm to the head-globe, in the ilium, and pushes it upwards.

The knee being seized, the further progress of the case is under your command. By simply drawing down upon the part seized, you may often complete version. But it will greatly facilitate the operation to continue to apply force to the two poles. You will observe in Fig. 60 that the hands have changed places in relation to the two poles of the fœtal ovoid. Although the left hand has never shifted from its post in the vagina, the ovoid has shifted; and the forefinger, drawing down the left knee, virtually acts upon the pelvic end of the ovoid. The right hand, therefore, is at liberty to quit this end; it is transposed to the head-end of the ovoid, which has been carried over to the left iliac fossa. The palm is applied under the head, and pushes it upwards in response to, and in aid of, the downward traction exerted on the child's leg. This outside manœuvre singularly facilitates the completion of version. It may be usefully brought into play in almost every operation of podalic turning. If it is neglected, as I shall show on a special occasion, you will sometimes fail in effecting complete version; for the head will not always quit the iliac fossa by simply pulling upon the legs.

FIG. 61.

Fig. 61 represents the third act in progress. The right hand continues to push up the head-end of the ovoid, the left hand has seized the further knee, and draws it down in the axis of the brim. Version is now nearly complete.

Continuing to draw upon the leg, as soon as the breech nears the brim a movement of rotation of the child on its long axis begins, the design of which is to bring the back to the front of the mother's pelvis. This rotation depends upon a natural law of adaptation of the two parts. You are not to trouble yourselves in "giving the turns," as some authors imagine they can. I cordially agree with Wigand when he says, "Nature knows better than we do how to impart the proper turns."

FIG. 62.

Fig. 62 represents the completion of the third act. The right hand still supports the head, now beginning to rotate in the transverse diameter. The left hand draws down on the left knee in the direction of the pelvic axis. Version is complete. Rotation of the child on its long axis has taken place, the back coming forward as the breech enters the pelvis.

What you have to do is simply this—*to supply onward movement.* If the uterus be doing its own work, propelling the child breech first, we know we may rely upon Nature so to dispose the child in relation to the pelvis as to enable it to pass with the greatest facility. So it is when we supply the moving force from below. If this force is wanted, supply it; but do not attempt to do more: avoid that fatal folly of encumbering Nature with superfluous help. Keep the body gently moving in the direction of the pelvic axis by drawing upon the leg, and Nature will do the rest. You will feel the leg rotate in your grasp, and the back will gradually come forward.

I have said that, upon the whole, the further knee is the better one to seize; but if you compare Figs. 60 and 62 you will see that, by drawing the nearer or anterior knee, you would directly secure the rotation of the child's back forwards; so that, as I have before said, it is not worth while to lose time in trying to size the further knee if you find the anterior one the more easy to seize.

This completes version. The breech is substituted for the head. Nature may effect expulsion; but, if she fail, we have it in our power to effect delivery by extraction. We have assumed that extraction is necessary, and will proceed to this operation.

THE *Berliner Klinische Wochenschrift*, which some weeks ago confirmed the report of Pirogoff's death, announces the deaths of two distinguished Russian Surgeons—namely, the Inspector-General and Member of the Privy Council, Peter Alexandrowitsch Dubowitzky, whose influence on Medical education in Russia was immense, and the renowned Professor Szegmanowsky, one of the most celebrated Surgeons of Russia, who died on April $\frac{13}{25}$ at Kiew. At the same time the journal says that the rumour which has gone through the press of Europe, Medical and non-Medical, concerning the death of Professor Pirogoff, is happily not true, the distinguished Surgeon still living at his country seat, near Kiew.

ON "OPTIC NEURITIS" AS A SYMPTOM OF DISEASE OF THE BRAIN AND SPINAL CORD.(a)

By T. CLIFFORD ALLBUTT, M.A., M.B. Cantab., F.L.S.
Physician to the Leeds General Infirmary, etc.

(*Continued from page 496.*)

Optic neuritis, gentlemen, under which name we shall see that at least two wholly different processes have been included, can, during life, be recognised only at the disk and by means of the mirror. Let us, then, learn the normal appearances of the disk and of those of its anomalies which have no symptomatic value for us. Such meaningless variations are often a great trial to beginners in ophthalmoscopy. A perfectly normal disk should be slightly oval, its vertical diameter being a little the longer. If the transverse diameter seem the longer, this may be due to the corneal defect known as astigmatism. I have seen it, too, in the course of atrophy, but it is not an important peculiarity. The size of the disk varies in the ophthalmoscopic image with the power of the lenses used. The direct mode of examination also gives a larger image than the ordinary indirect mode. The borders of the disk should be even and well defined against the retina and choroid. It may be partly or wholly surrounded by a crescent of exposed sclerotic, as I have said, or by a zone, crescent, or patch of pigment. Neither of these states taken alone has any meaning for the Physician. The colour of the disk should be a delicate rosy white or cream colour; the tint differs slightly, however, in different people, and it pales a little with age. The rosy hue is more marked at the periphery, and the centre or point of exit of the vessels where there is a shallow depression is extravascular, being composed of the connective tissue surrounding the central vessels. In some congested disks this extravascular centre shines by contrast with great distinctness. The outer edge of the nerve, again, is a little less vascular than the inner. The tint both of the disk and of the choroid varies also to some extent with the complexion of the patient. Perhaps the most striking abnormities which arise to puzzle the student are certain white patches which lie near the disk, and sometimes seem partially to involve it. They are not very uncommon; they shine with a pearly-white colour, their borders are irregular, and they generally shade off a little into the neighbouring retina. They prefer the inner side of the disk, they are usually congenital, they do not interfere with vision, and they are probably due to an extension of the opaque envelopes of the nerve fibres.

The vessels we see upon the disk, in addition to the rosy hue of its own cerebral circulation, are the central artery of the retina and the central vein. The central vein bifurcates beyond the sclerotic, and therefore out of sight; the artery divides in the disk. The main distributions of this artery and vein are tolerably uniform, and you must accustom your eye to their average sizes, tints, directions, and frequency, as they are greatly liable to vary in disease. The distinction between the arteries and the veins is not difficult in healthy retinas. The arterial branches are smaller and of a paler rose colour; their transparency also gives them the appearance of a double outline. They are more superficial than the veins, may often be seen to cross these, and at times, when the veins are full, even to strangulate them. These remarks, of course, apply to the main branches, to which the lesser branches must be traced.

There are certain vessels which I had often drawn and described as the radiating vessels of the disk before I found that M. Galezowski had also specially noticed them. They are in nutritive relations with both the disk and the retina, and in atrophy of the disk they may be seen to shrivel, grow tortuous, and vanish, while the retinal artery and veins are almost unaffected. In states of congestion, on the other hand, they appear in numbers, and radiate in a star-like manner from the disk, chiefly on its lateral aspects. They have few branches or offsets, and in healthy conditions, under ordinary magnifying powers, they are only visible in twos and threes. Their appearance, therefore, in any number is significant of slight degrees of congestion.

Finally, I ought to discuss in this place the relation of the optic trunk to the sympathetic system, but I shall open this question when I treat of "spinal amaurosis" and its causes. The ground is now cleared for us in the way it ought to be cleared, and we are prepared to interpret disease by tracing deviations from health. We allow of no radical difference between states of health and states of disease, and instead of taking "optic neuritis" as a standard, and referring all congestive and exudative conditions to that, I shall take health as my standard, and try to detect the varying modes of departure from that state.

In these lectures I have to discuss chiefly the mode and meaning of the change or changes confused together under the name of optic neuritis—a term too carelessly used.

I will now ask—first, what "optic neuritis" means as a name; and secondly, whether that meaning includes all the kinds of change attended with increase of vascularity to which the optic disk is liable. Now, if our Medical terminology be worth anything, "optic neuritis" should mean, or rather should answer to, inflammation of the optic trunk. What, then, is inflammation of the optic trunk? or, in the manner of Pilate, what is inflammation? Surely the conception of the movement known as inflammation, or which alone ought to be known by that rather objectionable name, is sufficiently simple. You know that I am wont to define "inflammation" as *lesion with reaction or resistance*. This excludes all transient disturbances of molecular tension, without disintegration. The idea of inflammation must start from a rupture of continuity, however minute, and must regard the subsequent congestion and other phenomena of resistance as secondary. Resistance will manifest itself in various ways, according to the conditions of the ruptured tissue. When this is surrounded by vascular and nervous connexions, we shall observe not only cellular resistance, but also nervous and vascular resistance. We shall see proliferation, congestion, and heat in their various degrees, according to the complexity of the part which suffers. Vascular extensions do not make inflammation any more than the railways of the force in Abyssinia made the war; they are merely the evidence of lesion, and the conditions of resistance to it in tissues of a given complexity. And yet all severe congestions of the optic disk, with their consequent effusions, are called optic neuritis! The truth is, we cannot shake off our ontological conceptions of a "nature," an entity, I believe, of the female gender, who is always planning something in the human body—"eliminating morbid poisons," plugging up inappropriate perforations, "setting up inflammatory actions," and so on. It is really time we avoided all this reasoning from final causes, and that we sincerely regarded the functions of tissues as the evidence of an equilibrium mobile which possesses greater or less powers of resistance according to its tension, and which manifests such resistance variously according to its complexity.

If we pass a ligature round the ophthalmic vein, we shall produce thereby great congestion of the optic nerve behind the ligature, and an escape of the vascular contents, due not to increased attraction on the part of the tissues, but to mechanical causes, causes like those which, in states of portal obstruction, favour an escape of serum into the peritoneal cavity. It is not only incorrect, but very misleading, to call this result "optic neuritis." Injury to tissue is not the starting point of the disturbance, though, of course, a secondary neuritic process with increased proliferation of the connective elements may be set up in consequence of the pressure. This is no idle or merely verbal distinction. Severe discal congestions not neuritic in nature are common—commoner perhaps than true neuritis—and as the nerve tubes may be little injured, it may cause but little alteration of vision. Such states, therefore, are seldom presented to the ophthalmic Surgeon, and are to be discovered rather by the Physician, whose mind moves in the opposite direction. In true "optic neuritis," on the other hand, the (nervous and ?) connective elements suffer first, and the subsequent congestion is slighter in degree, though the vision, for obvious reasons, may fail sooner. True optic neuritis, however, may go far without fully arousing the patient's attention.

I shall divide the affections of the nervo-vascular parts of the eye, which are significant of cerebro-spinal disease under the following heads:—

A. Simple hyperæmia of the disks and retinal vessels.
B. Anæmia of the same parts.
C. Ischæmia of the disks, and its consequences.
D. Acute neuritis, and its consequences.
E. Neuro-retinitis.

(a) These lectures form part of a course delivered at the Leeds School by Mr. Teale and myself to Practitioners and senior students. I have been very careful, therefore, to avoid many interesting questions both of ophthalmic and of cerebral change which might in some places seem naturally to arise. I hope I have not erred on the side of narrowness, and I may also hope on some future occasion to be able to take up in detail some points which are now passed by.

F. Peri-neuritis.
G. Chronic neuritis.
H. Simple progressive atrophy.

A. Simple Hyperæmia.

From what I have said you will readily learn that it is difficult on the one hand to distinguish slight degrees of congestion from normal variation, and difficult on the other hand to distinguish its higher degrees from secondary neuritic processes which may complicate it. Both distinctions, however, are very important, both as regards the presence of a certain symptom, its meaning, and its danger to vision. In secondary neuritis of the papilla following congestion the prognosis is far more favourable, as to vision, than in "descending neuritis," and in acute descending neuritis more favourable than in chronic neuritis or progressive atrophy. Simple hyperæmia may occur in the papilla, or in both retina and papilla together. At first the leading vessels, and chiefly the retinal veins, grow fuller, darken in colour, and tend to become a little tortuous. Their extremer branches may also be followed with greater ease on account of their dilatation and darker colour; for the same reason they seem also more numerous. It is a great help to us if, as is most usual, we find these changes more advanced in one eye than in the other, and Galezowski asserts that the eye on the side of the brain mischief is commonly the worse, an observation which I too have made in some cases, but which is certainly far from being universally true. Pulsations, which may sometimes be seen in the veins of the normal eye, especially if a little pressure be made upon the ball, are more evident in hyperæmic states. Congestion of the disks themselves is generally first seen on the inner half, where the small vessels are more numerous, and from thence a full red invades the whole papilla. Slight œdema then takes place, so that its edges are dimmed, and the disk is veiled by a cloud, or its outline becomes altogether lost, and its locality known only by the convergence of the veins. In earlier stages, however, the connective tissue about the vessels in the centre remains white and strongly contrasted with the red periphery. Sometimes little dark red spots are seen upon the angry-looking disk, and are called ecchymoses; when examined, however, in a large image, they may nearly always be resolved into little dilatations or kinks in the vessels. This kind of disk is quite independent of any hyperæmia of the choroid, and, indeed, may sometimes occur without much dilatation of the retinal vessels. The sight may be dimmed, the eyes may feel heavy, or the patient may complain of flashes of light, iridic colours, and the like. Neither these conditions, however, nor neuritis cause photophobia, which seems to be due to the pain of movements in the ciliary region and to depend upon the fifth nerve. You need not fear, therefore, in spite of Jäger's warning, to use a strong light or to make repeated examinations in any state of the optic disks.

The *causes of simple hyperæmia* are many. It may be the first stage of full ischæmia, of a neuritis, or of an atrophic process. It may be due to orbital disease, to choroiditis, or to Bright's degeneration. Slight degrees of it are not uncommon in drunkards; but in by far the greater number of cases it is due to encephalic disease—to tumour, to acute or chronic meningitis, or to changes in cerebral vascularity attended with convulsions. The presence of hyperæmic and anæmic conditions of the disk and retina in convulsive and maniacal diseases is of high pathological interest. In epileptics, I am satisfied that there is a higher average fulness in the vessels of both disk and retina than in healthy persons. It is difficult to assert this in any single case; but if we take a hundred cases of well-marked simple epilepsy together, we shall see a higher contrast in the white centre of the disk, a deeper and perhaps stippled redness of its circumference, a purpleness and distinctness of the veins, and a frequency and decision about their smaller branches. They are seldom tortuous; nor are the outlines of the disk often obscured, though this was the case in Anne G., aged 22, admitted into the General Infirmary, under my care, Feb. 25, 1868. She had fallen three days before, in Briggate, in a convulsion, and was semi-comatose when brought in. Twenty-four hours after she passed into a "status epilepticus" (coma and convulsion) which continued till death. No further history was to be had. I examined her eyes with the mirror repeatedly and continuously during the coma and the convulsions, and always found a fulness and slight tortuosity of the retinal vessels, a full redness of the disk, including the central connective tissue, dim œdematous margins, and a large number of radiating vessels. The iris was strongly convulsed during the fits, but there was no neuro-retinal variation. She died in about twenty hours, and, as I expected, we found only a marked fulness of the meningeal veins and of the sinuses, rather numerous puncta, some excess of serum in the ventricles, and a diminished consistency of the motor ganglia. The following is another case out of many in which the cerebral symptoms were less severe:—M. W., aged 32. Sight imperfect for a year; wherefore he came to Mr. Teale's clinic, when I saw him also. For some time has had constant vertigo, occipital headache, debility, and depression. Heart healthy; urine normal. Both disks markedly hyperæmic, and veins full. There are one or two twists or dilatations of vessels upon the disks, which, unless highly magnified, resemble hæmorrhages.

Transient hyperæmia may be seen in heart disease, such as aortic regurgitation, and in Graves's disease; but I do not know how far we may reason from it to the encephalic conditions. It may be seen, too, in menstrual disorders. Inquiry must always be made, therefore, into the state of the heart and other functions before we decide on the symptomatic value of papillary hyperæmia.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

ON ANIMAL-PARASITE DISEASES OF THE SKIN.

By BALMANNO SQUIRE, M.B., F.L.S.,
Surgeon to the West London Dispensary for Diseases of the Skin.

(*Continued from page 468.*)

In our account of the varieties of louse-disease, we shall deal first with prurigo and its connexion with body-lice (*pediculi corporis*), which are to be distinguished from head-lice (*pediculi capitis*), not only in respect of their habitat, but also in respect of the skin-lesions they occasion. In speaking of prurigo as connected invariably with the presence of body-lice, it must be understood that we refer to general prurigo as distinguished from local prurigo. It is general prurigo that is ordinarily meant when the term prurigo is employed unqualified. The so-called local forms of prurigo deserve, in our estimation, some title which shall distinguish them from general prurigo, with which, indeed, they have nothing whatever to do. The word *pruritus*, which lies ready to hand, will answer this purpose sufficiently well, since it expresses the kind of distinction that ought to be made.

It has long been known that these local forms of prurigo "are frequently connected with local disease," and "are most likely to be relieved by measures directed against the primary disorder." But we believe that they are invariably symptomatic of disorder of the canal (rectum or vagina), the orifice of which is affected with the itching, with this proviso only, that there be not present some definite disease of the skin itself to account for the sensation, such as eczema or lichen, the diseases most commonly found affecting the skin of the perineum.

However, although "prurigo podicis," "prurigo scroti," and "prurigo pudendi muliebris," always very distressing, are often also very obstinate disorders, and that (as we take it) because the attention of the Surgeon is too frequently in such cases concentrated on the skin, and is heedless of the condition of the passage leading from it, yet they are of very rare occurrence when compared with general prurigo, which is one of the very commonest of cutaneous diseases, and they are consequently of much less importance than it is.

In speaking of general prurigo, we include prurigo mitis, prurigo formicans, and prurigo senilis, which three are, in our estimation, essentially one and the same disease. We do not say mere stages of the same disease. If they had been simply that, so patient an observer as Willan evidently was could not have failed to discover that the one was capable of being developed into or of being developed out of the other, and so faithful a describer of what he saw would never have made distinct varieties out of mere transition forms of the same affection. Unless, in fact, he had observed that in some cases the disease continued to be of moderate severity throughout its course, in others that it was severe from the beginning, and that in a third class (common amongst old persons) it was constantly, from beginning to end, a still more formidable disease, these distinctions would never have been handed down to us. And yet we affirm that these varieties are unnecessary distinctions.

The reason that they seemed to be necessary to one who had not divined the common cause of these affections is to be found in the fact (unconsciously acknowledged by Willan when he termed the worst phase of the disease prurigo *senilis*) that the skin of an aged person is far more sensitive to the irritation of the pediculus corporis than is the skin of a middle-aged person, and that of a middle-aged person far more than that of an adolescent. We have observed, as Willan did, that the severest form of prurigo (the form described by him as prurigo senilis) is only to be met with in persons advanced in years; but we have noted more than this—viz., that in aged persons prurigo is invariably of the severest type, that in middle-aged persons it is invariably less severe, and that in adolescents and children it is invariably milder still, and, furthermore, that in all cases it is associated with the presence of pediculi.

The general belief is that prurigo is exclusively a disease of adults, but this is an error, for we have noted it in a child only 4 years old.

At the same time that we are crediting prurigo properly so called with the cause that we attribute it to, we must disclaim the imputation of including all the affections that have been loosely classed under this term. We do not, for example, pretend that the itching of jaundice comes into our category, or that that habitual irritability of the skin known as chronic urticaria is due to such a cause, although it has happened to us to see many cases of what we should call prurigo (cases which were at all events complicated by the presence of pediculi) diagnosed by eminent authorities as "chronic urticaria."

The description of prurigo that we have quoted from Sir Thomas Watson, although very graphic, is not sufficiently precise and definite for our purpose of conveying exactly how much and, at the same time, how little, we mean by "prurigo;" for though his description is a most able sketch, it is no more—indeed, it professes to be no more—than a mere sketch of the main features of the disease. We propose, therefore, to give a short account of the disease such as we ourselves have observed it.

The skin lesions that we have noted as characteristic of prurigo are as follows:—

1. Small, pale, flattened elevations (resembling very closely the spots of lichen urticatus), in the centre of each of which is a minute black spot.

2. Small flat, black or dark claret-coloured crusts of the area of a split hempseed or larger, either concealing a mere superficial excoriation, or resting on a flat slightly-elevated surface of the natural colour of the skin.

3. Linear excoriations varying in depth and width according to the severity of the disease, but commonly not exceeding an inch in length. These are surmounted with thin black or claret-coloured crusts, which form short, interrupted dotted lines.

4. Urticarious elevations sometimes reddened, but generally pale, and without an areola, usually of small extent, rounded (not elongated), of the average size of a pea. These are constantly shifting their ground, disappearing at one place to reappear at another.

5. Patches of erythematous redness, which, like the urticarious elevations, are "fugacious."

Of the lesions noted above, the first mentioned is the only one that is the direct result of the presence of the parasite. The small flattened elevations, paler than the surrounding skin, and presenting in their centre that minute black spot, which has hitherto escaped the attention of clinical observers, but which is nevertheless constantly present, and which has a very important bearing on the pathology of the disease, are produced by the bite of the pediculus. The irritation caused by these louse-bites, which scarcely differ from flea-bites in appearance, occasions a little circumscribed œdematous infiltration of the cutis immediately around the bite, and the little wound produced by the bite is sealed up by a minute punctate black coagulum; hence the small circumscribed pale elevations of the skin which constitute "the broad flat papulæ" of prurigo.

The remaining lesions that we have mentioned are less direct consequences of the presence of the pediculus. The small rounded black crusts, of the size of a split-hempseed, and the linear excoriations sealed with dark claret-coloured coagula, are produced by the scratching that the intense irritation provokes. The œdematous papules (above mentioned), standing out in relief from the surface of the skin, are caught by the patient's nails; their summits are thus torn off, and the excoriated spots become sealed with the drop of blood that escapes from them. The linear excoriations are similarly scored on the skin by the patient's nails. The urticarious wheals and the patches of redness result from the rubbing of the skin by which the sufferer in vain endeavours to relieve his distress. But it is the rounded coagula and the black linear excoriations that are the most constant and most distinctive features of the disease. In no other disease of the skin but body-louse-disease are these lesions to be met with, and the reason of this is, that under no other condition is the irritation so intense as to impel the patient to tear his skin so remorselessly.

In cases of chronic urticaria, although the irritation is often very considerable, these lesions are never present. The irritation of urticaria is provocative rather of rubbing than of scratching, and if the patient scratches a little he never resorts to that furious digging in of his nails, which is the most characteristic result of prurigo.

In scabies, which, like prurigo, is provocative of scratching rather than of rubbing, the sensations are nevertheless altogether unlike those of prurigo. The scratching that is provoked by scabies is of a much less energetic kind. The nails are passed lightly over the itching surface, soon leaving one part, the irritation of which is speedily allayed, to scratch at another; hence the nails leave usually mere urticarious lines, which speedily subside; and, when permanent marks are left by the scratching, these are much narrower, much longer, and the linear crusts on them are of a much lighter (redder) colour than those of prurigo. The reason of this is that in scabies (the disease with which of all others prurigo is most likely to be confounded) the itching is more or less a pleasurable sensation, which provokes to a gentle scratching; the itching sensation is of a more diffused kind than in prurigo. As a consequence of this the nails (in scratching) are passed over a greater extent of surface, and hence it is that the marks left by them are much longer than in prurigo; but the itching being much less severe, the involuntary scratching is not nearly so energetically performed, and consequently the marks of the nails are narrower, less blood is drawn from the scarcely wounded skin, and so the linear clots are thinner, and therefore more transparent, and so of a lighter (reddish) colour.

In prurigo, on the other hand, the itching is an intolerable, painful sensation, which urgently impels the patient to supplant it by some equally vivid but more supportable feeling; this he obtains by scoring his skin deeply with his nails. The itching of prurigo is (at whatever part it may happen for the moment most to engage the attention of the patient) of a more definite character, and is more concentrated to one spot; on this spot, wherever it may be, the patient suddenly fixes, claws at it furiously, and does not desist till he has drawn blood. Hence it is that the linear excoriations of prurigo are always short in comparison with scratches provoked by any other cause, and hence, too, their comparative breadth, and the dark colour of the relatively thick coagula with which they are sealed.

It is important to insist on these details, since it is by the character of the scratch-marks on the skin that prurigo is known, and since to the moderately practised eye these marks are pathognomonic—absolutely distinctive—of the disease.

The situation occupied by the eruption of prurigo, a matter on which but little stress has been hitherto laid, has an important bearing both on the pathology and on the diagnosis of the disease.

We have noticed that the lesions we have described above are to be met with on the back of the shoulders, the breast, the loins, the outer and fore surfaces of the thighs, the front of the legs, the nates, the arms (especially their outer surfaces), the forearms, the neck; rarely the abdomen or the backs of the hands or feet; never the hollows of the axillæ, the palms of the hands, the soles of the feet, the fingers, or the toes.

We have found that in some instances the eruption affects chiefly the upper, in some the lower part of the body. In the former case it is generally most intense on the back of the shoulders, but is sometimes developed more on the breast than on the back. When it is more abundant on the lower parts it may be most copious either on the loins or on the thighs. This predilection of the disease for occupying either the shoulders and chest or the region of the hips is to be explained by the habits of the parasite by which it is caused. The pediculus corporis nestles in the "gathers" or folds of the shirt, which afford a species of "cover" for it. These "gathers" are most numerous in two situations—viz., at below the collar of the shirt, and at and below the waist, where the shirt is again thrown into folds.

The constant immunity from prurigo enjoyed by the axillæ,

palms, soles, fingers, and toes affords a ready means of distinguishing it in all doubtful cases from scabies.

The sensations experienced by the subjects of this disease are :—

1. Itching, varying in intensity, always, however, differing in character from that of scabies.

2. A burning sensation, which is sometimes so severe as to be compared to the sprinkling of red-hot cinders over the skin.

3. Formication, or a sensation as if ants were crawling over the body.

4. A vivid pricking sensation, as if needles were here and there thrust suddenly into the skin.

The itching of prurigo results from the presence of the pediculus on the surface of the skin, much in the same way as that of scabies is caused by the presence of the acarus in the substance of the epidermis. But the itching differs widely in character from that of scabies—it is, so to speak, of a far more importunate kind. One can understand this difference by remarking that in the one case the offending parasite is about fifty times the size that it is in the other.

The burning sensation is the result of the contact with the air of the chafed and excoriated surface of the skin. It is a similar sensation to that felt when the hands have become severely chapped by exposure to a cold easterly wind, and is of similar origin.

The formication or sensation as if ants were crawling over the body becomes intelligible if we consider the size of the pediculus (since it is scarcely inferior in size to the common ant), and still more intelligible if we view the pediculus through the microscope, and observe the very formidable-looking claws with which all its feet are furnished, and by means of which it clings to the skin. The vivid pricking sensation is caused by the bite of the pediculus, which is a larger insect than the flea, and which subsists, as the flea does, on the blood of the individual that it inhabits.

It is scarcely necessary to say that if prurigo be caused, as we believe, by pediculi, it must be a contagious disease. We may say, however, that we have not omitted to check our observations by this test, and have ascertained beyond doubt that (whatever views may be taken of its causation) prurigo is undoubtedly contagious.

This fact, taken in connexion with the close resemblance to scabies presented by a mild case of prurigo, explains Willan's remark, quoted in the earlier part of this essay, to the effect "that in its milder forms prurigo is sometimes ultimately converted into contagious scabies," although, if this be strictly interpreted, we must agree with Dr. Wood's criticism of it, which we quoted with it.

(To be continued.)

CASE OF MYELOID TUMOUR OF THE TIBIA.

By A. LEITH ADAMS, M.B.,
Surgeon, 22nd Regiment.

A healthy, stout, and muscular soldier, aged 27 years, with dark hair and pale complexion, had his attention directed for the first time, about the beginning of August, 1864, to a small swelling in the left knee-joint, in consequence of some pain in the part during drill or when the leg was bent suddenly. This condition continued for three months, when both the pain and swelling increased. On that account he came to the Regimental Hospital on November 2. I then found an elastic tumour of the size of a pigeon's egg on the inner side of the knee-joint between the tubercle of the head of the tibia and intervening bursa. It was pale, and, excepting on hard pressure, occasioned little or no pain. Blisters and iodine were applied, and during the following twenty-four days he remained in Hospital. No change took place in the size of the tumour, and the pain disappeared unless when the limb was suddenly flexed. He left the Hospital, but was not absent more than a few days before all the symptoms became aggravated, and more especially the dimensions of the swelling, which was now nearly double its original size, with all the appearances of an over-distended bursa; the major portion [illegible] posteriorly was pushing the latter outwards. The pain was now constant, and always worst at night. His general health, however, continued good. After repeating the local treatment above mentioned, a small puncture was made, [illegible] a straw-coloured fluid flowed away tardily, and the wound healed up in a few days. But now the tumour enlarged steadily, the nocturnal pains continued, his general health began to suffer, and, apprehensive of some constitutional mischief, I laid the swelling open on February 3 (six months from the commencement of the disease). A mass of rather tough fatty substance, mixed with a light-coloured fluid, filled a cavity apparently the size of a hen's egg. Pushing the finger through the medullary matter, it passed after some force into the spongy head of the bone, where the sharp edges of the cancella on its walls could be distinctly felt. The limb was removed by me that day at the lower third of the thigh.

The disease was found pervading the whole of the cancellated portion of the head of the tibia, and was well defined, extending upwards to the articulating cartilage, which formed its sole barrier in that direction. The crucial ligament showed a morbid degeneration at its tibial insertion, and there were three fresh centres of the disease in the central parts of the tibia, about two inches and a half below the lower limits of the tumour. The soft parts were healthy. The stump healed up, and I have lately learned that the man is in good health and free from any symptoms of the disease.

Remarks.—It must be considered a fortunate circumstance that amputation was performed before the tumour found its way into the knee-joint. The absence of symptoms of cachexia until the swelling had attained large dimensions was against the supposition that the disease was cancer. I accordingly forwarded the morbid structure to the Professor of Pathology, Royal Victoria Hospital, Netley, to whom I am indebted for the following observations :—"The upper part of the man's tibia you sent here I carefully examined. Its head was filled and expanded by a growth which obviously took its origin in the substance of the marrow of the shaft of the bone at its upper part. The microscope showed the structure of this growth to be made up of an excessive proliferation of marrow cells, with a still greater excess of free nuclei held together by blood-vessels and nucleated fibre cells. These, having multiplied to a very great extent, formed a very friable growth, which eventually expanded itself into the spongy substance of the head of the tibia, causing absorption or atrophy of its bony laminæ." Dr. Aitken goes on to remark: —"Although the tumour at first sight had an encephaloid-like aspect, yet the blood-vessels are not like those of a (malignant) encephaloid tumour, nor was there fatty degeneration of cell elements, as seen in the softening of cancers. The tumour was, from its structure, extremely friable, and it had just commenced to encroach on the cartilage of the tibia. The preparation is valuable, for tumours of the marrow of bones are by no means common in museums, and this particular form of myeloid tumour is the most rare of all."

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CLINICAL REMARKS ON CASES OF CONVULSIONS BEGINNING UNILATERALLY WITH DOUBLE OPTIC NEURITIS.

(Under the care of Dr HUGHLINGS JACKSON.)

The points of interest in the following case are (1) the clinical association of double optic neuritis with convulsions beginning unilaterally. I have now seen a good many cases of this kind, and have recorded several in the *Royal London Ophth. Hosp. Rep.*, vol. v. pt. 1 and 4, and three in the fourth volume of the *London Hospital Reports*. (2) It is worth remark that the right is the side of the body affected, it being generally the left. I was, at one time, over-impressed with this generality, and (*Lancet*, November 26, 1864) compared and contrasted aphemia as a disorder of motion with amaurosis from optic neuritis as a disorder of a highly specialised nerve of sensation. (3) The conservation of sight with intra-ocular appearances so decided is very noteworthy, and is a thing I have now many times observed and have remarked on in these pages, February 8, 1868, and some time ago in the *Royal London Ophth. Hosp. Rep.*, vol. iv. pt 4. (4) The fact that the fit was the first symptom of the patient's illness—I mean especially that it preceded the pain in the head—is of much clinical importance. (5) The nature of the ophthalmic changes [illegible] so far as the disruption goes, [illegible] by t

beginner to indicate not descending neuritis, but the "swollen disc." It is, however, to my mind an instance of what I would now call the second stage of optic neuritis, standing betwixt the condition in which the disc is lost in a patch several times its size, and permanent atrophy, which, to digress, is not always to be distinguished from the progressive atrophy.

The distribution into three stages is arbitrary, and will do harm to those who accept it as representing three different things. It will, I trust, be useful in preventing beginners from concluding that the appearances seen when sight first fails are the first changes. It should lead to the careful watching of cases from acute optic neuritis to permanent atrophy—*i.e.* if atrophy follows, as it usually does.

(6) Optic neuritis alone, or convulsion alone, is not usually owing to syphilis, but the two things together are not unfrequently owing to syphilis. In this case, however, there was scarcely any evidence of syphilis. The two symptoms may be owing to malignant disease—not likely in this case after twelve months—to injury of which there is in this patient's history no evidence, and probably to any coarse disease which damages the cerebral hemisphere. I have recorded (*Royal London Ophth. Hosp. Rep.*, vol. v. pt. 1) a case in which the two symptoms followed an injury to the right side of the head When seizures of this sort occur in a young and otherwise healthy-seeming married woman, we should give iodide of potassium, and certainly if there be recent changes in the discs as well.

Mary G., aged 30, was admitted Feb. 10 into the London Hospital for partial hemiplegia of the right side and convulsive seizures. I found by routine examination that she had the following ophthalmoscopical signs :—Both optic discs were prominent-looking, of rather fleecy whiteness; they were badly margined, their edges being a little irregular, but the area of the discs was scarcely enlarged. The arteries were very thin, and the veins were very tortuous indeed. This patient could read Brilliant type, and, except when atropine was put in them, insisted that there was nothing the matter with her eyes. The hemiplegia was of the common form, involving the tongue, face, arm, and leg in the usual way. It had come on eleven or twelve months before after a convulsion, which began when she was in apparent good health. She was sweeping a room. She had had, she supposes, a dozen fits since, each like the first, *beginning in the right hand*. She has had much pain in the head, and it is to be particularly observed that there was no pain in the head before the first fit. She has had no vomiting. As to the nature of the changes causing the symptoms, there is little evidence. No direct questions were asked of her, and the only thing at all pointing to syphilis was that she had had one still birth and had not been pregnant since. She had for a few days a slight even swelling in the middle third of the temporal ridge, which I suppose to have been a node. Her general health was good, and she took her food well, and was usually up and about the ward. The hemiplegia diminished but slightly; she had several fits, and on March 2 she went out scarcely better than when she came in. She still considered her sight to be quite good.

April 6 and 30.—I saw her again as an out-patient, but, except that she had no more fits, and that her health kept good, I have nothing to add. She was still partially hemiplegic, and will no doubt remain so.

GUY'S HOSPITAL.

CASES ILLUSTRATING THE EFFECTS OF AN ADHERENT PREPUCE UPON THE URINARY ORGANS.

(Under the care of Mr. THOMAS BRYANT.)

It cannot be too much kept in mind, said Mr. Bryant the other day to his class, that an adherent prepuce by itself is capable of producing symptoms of difficult micturition, incontinence of urine, retention of urine, intermittent flow of urine, hæmaturia, and, indeed, any other symptom of urinary disease; for it seems that every source of irritation at the renal end or the external end of the urinary passage is referred to the bladder, or rather shows itself in the most marked degree in that viscus. In any case, consequently, of supposed stone in the bladder in a child, the penis should be well examined, for in a large number of cases the symptoms of stone well be found to be caused by an adherent or elongated prepuce.

The following brief cases illustrate the remarks we have just quoted :—

Incontinence of Urine from Adherent Prepuce—Circumcision and Recovery.

Case 1.—William P., aged 11, came under Mr. Bryant's care at Guy's Hospital on March 16, 1864, for incontinence of urine. It had existed from birth. During night his urine was always passing, but during the day he had some slight control over his bladder. On examining the bladder, no stone or other disease was felt; but he had a long prepuce, which was also firmly connected by adhesions to the glans penis. Circumcision was performed, and the subpreputial adhesions broken down, with a good result, for all incontinence and irritability of the bladder at once ceased, and two months subsequently he was still well.

Retention of Urine from Adherent Prepuce.

Case 2.—Henry B., 20 months old, was brought to Mr. Bryant, at Guy's Hospital, on June 24, 1861, for retention of urine. For six weeks he had experienced difficulty in passing his urine, the mother asserting that the child had passed three days without micturating, and had commonly gone two days. On examination the prepuce was found to be firmly adherent to the glans penis. The bladder was apparently sound. The prepuce was separated from the glans penis, the adhesions being well torn through to escape the corona, and in a few days the child was well. When seen six weeks subsequently no return of the retention had taken place.

Retention of Urine, with an Elongated and Adherent Prepuce, cured by Circumcision.

Case 3.—Thomas L., aged 6 years, came under Mr. Bryant's care, at Guy's Hospital, on January 28, 1867, with retention of urine. He had suffered at intervals from this condition for three weeks, and on one occasion had a catheter passed for a retention of twenty-four hours. When seen the boy had not passed urine for twelve hours. A pint of urine was drawn off. He had a long and adherent prepuce. Circumcision was performed, and all the adhesions between the prepuce and glans penis were broken down. A complete recovery followed, and when the child was seen a month subsequently he was still well.

Difficult Micturition and Retention of Urine from Elongation of the Prepuce, cured by Circumcision.

Case 4.—Tom C., aged 2½, was brought to Mr. Bryant, at Guy's Hospital, on August 8, 1864, for a retention of urine of twelve hours' standing, and a difficulty in micturition which had been present for the last eighteen months of the child's life. The urine at times would not pass, and the attempt would be attended by some straining. An elongated and adherent prepuce was present. Circumcision was performed, and a good recovery took place, no return of any of his symptoms having been observed some weeks afterwards.

Intermittent Flow of Urine and Pain from an Adherent Prepuce, cured by Circumcision.

Case 5.—Walter C., 12 years old, came under Mr. Bryant's care, at Guy's Hospital, on April 12, 1864, for pain in passing his water and an intermittent flow of urine. On making a careful examination of the bladder no calculus could be felt; an adherent prepuce, however, existed. The adhesions were at once broken down, and in one week all his symptoms had disappeared. They had not returned when seen one month subsequently.

Case 6.—Joseph S., aged 3, was brought to Mr. Bryant, at Guy's Hospital, on June 2, 1864, for symptoms of stone. He had experienced pain, and at times difficulty in micturition for many months, and the flow of urine would constantly stop and go on again. No stone, however, could be felt, but a long and adherent prepuce was detected. Circumcision was performed, and all adhesions broken down, a rapid recovery following, which was lasting.

Prolapsus Recti with Incontinence of Urine and Hæmaturia from an Adherent Prepuce—Circumcision and Recovery.

Case 7.—E. J., aged 4, came under Mr. Bryant's care at Guy's Hospital, on December 4, 1865. He had experienced difficulty in micturition from his birth, had at times suffered from retention of urine, and at others from incontinence. On several occasions he had passed blood with his water after straining. His water would constantly stop during its flow, and then go on again, as in stone. Since he was eight months old he had had prolapse of the bowel. He had taken advice from many men, but he never found relief from treatment. The bladder was examined with great care, but nothing wrong with it was detected. The bowel also was quite healthy. The prepuce was very long and closely adherent to the glans penis. Circumcision was performed with a most satisfactory result, for

all the symptoms at once vanished, and when the child was seen eight weeks after the operation he was quite well.

Priapism from Birth, with Adherent Prepuce, cured by Circumcision.

Case 8.—Frank T., aged 2, was brought to Mr. Bryant, at Guy's Hospital, on May 19, 1862, for an erection of the penis which had existed from birth. The mother asserted that she had never seen the organ in a different condition. The child had never experienced any difficulty in micturition. The prepuce was also firmly adherent to the glans penis and elongated. Circumcision was performed, and the subpreputial adhesions destroyed, with a good result, for the priapism at once disappeared and did not return. The mother told Mr. Bryant that this child had had what was called tetanus when eleven months old, and fits, which were followed by some wasting of the legs. These limbs were at this time clearly feeble.

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Medical Times and Gazette.

SATURDAY, MAY 16, 1868.

THE GENERAL MEDICAL COUNCIL.

There would seem to be on all sides a desire, as the time approaches for the meeting of the Medical Council, to make some inquiry as to the good it has done, and as to the money which has been expended. A painstaking contemporary has prepared a carefully drawn-up balance-sheet representing the income and expenditure of the Council; but unfortunately it has been so devised that the facts intended to be conveyed are not brought home as they ought to be. We had ourselves drawn up some statistical information which we hope will prove more useful in this way.

The first great labour of the Council after its organisation was the registration of the qualified Practitioners of Great Britain, it being intended thereby to separate the sheep from the goats, and so to create greater security for the public. In strict justice, the public should have paid for this increased security, not the men whose names were to be enrolled in the official volume. Still it was determined to lay upon them a direct tax, and thus a sum upwards of £34,500 was collected during the first year of the Council's existence. Nor did Medical men entirely object to paying their registration fees, as they expected that the benefits to be conferred upon them by the Council, working on the basis of the Medical Act, would be commensurate with the sum expended by them. Great hopes were entertained that illegitimate Practitioners would be put down, and thus that the income of the legalised Medical man would be increased. How vain this hope has been all know too well. But the Medical Council was further intended to secure a uniform and improved standard of Medical education; this, again, was surely for the benefit of the public at large, and not specially for that of the Profession, for it is nothing to one man that another is an ignoramus. Still, the more elevated character of the whole body could not fail to react favourably on the social status of each individual member, so that in this way also a certain amount of good might accrue from the tax a man was called upon to pay. That the Council has in this way done good we will not deny, but as it has been set at naught and its counsels despised by more than one examining body, the result has not been equal to the anticipation. The only work of the Council we can look upon with unmingled satisfaction, notwithstanding the *fiasco* of the first edition, is the British Pharmacopœia, a national work of which we may all be justly proud. Still, if that is the only thing we have to look to, we shall have paid far too dearly for our whistle.

Of late the Council have, in their endeavours to secure something like uniformity in qualifications, appointed visitors to the different examining boards. These may do good, but the system is most imperfect. The visitors, in certain instances, give notice of their intended presence, and they are only conversant with what goes on during the single day their visit ordinarily lasts. There is nothing therefore, say in a combined educational and licensing body, to prevent the pupils being picked for that day if it be considered desirable to show off. It has even been whispered that examiners, who were also teachers, did not disdain occasionally to cram the intended candidates who were to undergo the ordeal in presence of the visitors. Still, the tendency is in the right direction.

It is probably, however, in connexion with the annual meeting of the Council that the Profession at large have most just reason to complain. The members come there to act; some of them would seem to remain only for the purpose of talking, as we shall by-and-by have occasion to show. Taking as samples the last seven years the Council has existed—for the first two were too much perturbed by various causes to be taken as fair specimens in any way—we find that the annual average income derived by the Council directly from the Profession, in the shape of registration fees, has been £3970 odd, the average total income being £9356 odd. Again, the average expenditure for all purposes has been £6036 15s., of which, on an average, £1731 has been spent on the annual meetings of the General Council alone. The sums expended during these years in fees to members attending the annual meetings amount to £9719 12s. 6d.; on an average, therefore, on each occasion £1388 10s. 4d. have been thus spent, which sum, if divided by 23, the number of members of Council, gives £60 odd as the average amount pocketed by each individual. Unfortunately we have no means of ascertaining the amount of work done by each member, except in one particular, that of talking, which some of them would seem to consider the main object of their meeting together. Up to 1865 the Minutes of the Council Meeting alone were published. Then for the first time reporters were admitted, and the deliberations thus thrown open to the public. Since that time the amount of talking each man has contributed may be duly estimated. The meeting in 1864 was of importance, and it lasted a fortnight; previous to that year, while as yet there were no means of bringing speeches before the Medical world, the ordinary period occupied by the sittings of the Council never exceeded nine days; since 1865 it has never been less than ten days, with the consequence of increasing the expenditure from, say, £1550 to £1700—not a very heavy matter, truly; still it is money wrung from hard-working and underpaid men. No one will contend that the matters before the Council of late years have been more important or more urgent than they were in former years; and we can only attribute the prolongation of the sittings to the increased amount of—we will not say discussion, for it is not always that, but of talk, which has become customary. We know that some of the best business men in the Council say the least. We cannot surely conclude that, active in all things out of the Council, they become inert and lifeless in it; or are

we not rather to conclude that much work may be done without an enormous amount of talk—that it is not always those who say most that are the most useful members of society?

It must be confessed that for practical purposes the Council is too large—that a few active and zealous men might do far more good than the present unwieldy body. A cry has of late been raised that the body of the Profession should be represented. Now, although this is done in one way already, we should have no objection to the proposal, were it not that any change would almost of necessity entail an increase of the members of the Council—a change we most sincerely deprecate. We fear that the interests of rival educational institutions already too much influence speech and action; were a new source of discrepant opinion introduced, confusion could only become worse confounded. Members too frequently act as the guardians of the rights of certain institutions; they forget how they are placed—not delegated by a body which pays all expenses, but that the burden rests on the rank and file of the Profession, whose interests they are, therefore, bound to consult first of all. It is not fair that the funds of the Council should be wasted by an undue extension of what it is flattery to call debate.

A look at the reported proceedings of the Council tells extraordinary tales. It shows that three of the members occupy as much of the time of the meeting as nearly all the others put together. We find Sir Dominic Corrigan speaking ten, twelve, thirteen, and fourteen times in the course of a single day. Next after him comes Dr. Andrew Wood, who sometimes speaks six, eight, and nine times; whilst as it were to keep him in countenance, Dr. Alexander Wood follows, speaking from six to ten times a day. Such an amount of talk cannot be necessary for business purposes, else all would indulge in it; but, we repeat, it is not fair to the General Practitioner, on whom, after all, the burden must fall, that his money should be wasted in such an unprofitable manner. It would be far better were each member to receive a definite fee, say fifty guineas; any undue prolongation of discussion would not then immediately and directly affect the funds of the Council.

IS THERE, OR IS THERE NOT, SUCH A DISEASE AS SYPHILIS?

In another column will be found a note from Dr. Macloughlin, triumphantly summing up his conclusion that there is no such thing as syphilis. As Dr. Macloughlin informs us that he now retires from the controversy, and as many of our readers may have looked at the various notes from him on the subject which we have published from time to time, with wonder that any man can be found to deny what seems so indisputable as the existence of a "specific enthetic virus," a few words on our part may not be misplaced, with the view of seeing what justification Dr. Macloughlin has in maintaining what seems so paradoxical an opinion.

Since the opinions are peculiar to the man, we may, without trespassing on forbidden ground, say that Dr. David Macloughlin is no commonplace personage; verging on 83, with tall upright figure, firm step, and an eye whose fire is undimmed, he is just the man to form opinions of his own, and to hold them with indomitable tenacity. His career as a military Surgeon was arduous and distinguished; from 1811 to 1818 he served in the Peninsula and in the army of occupation of France, was present at seven general actions, under fire in four, and hit in one, but saved by his pocket-handkerchief, which turned the ball. On his return to England in 1818, he was refused promotion; and as he remonstrated with the Horse Guards with a spirit undismayed by authority and incapable of submission, he soon found himself deprived of half-pay and commission. He next settled in Paris, where he practised for nearly thirty years. On his return he again began to besiege the Horse Guards for redress, and made himself famous by his dogmatic rule that diarrhœa invariably precedes Asiatic cholera—a rule of great practical value in an epidemic, though not believed to be so free from exception as its author maintains.

But to come to his opinions on syphilis. Let us remember what were the orthodox doctrines sixty years ago—that syphilis was a progressive disease, invading one order of parts after another, and that *the* specific was mercury; and let us not forget the orthodox practice when all cases, including gonorrhœa, were treated by mercury, and the Surgeon's inquiry was, "How much do you spit?" Dr. Macloughlin's faith was first shaken by observing that the Portuguese treated syphilis without mercury. Whilst in charge of a Hospital ward in 1814 two men came in for syphilis, alleged to have been contracted the day before from the same woman. One was treated without mercury, and soon got well; the other was treated with mercury, and went on from bad to worse: the superior Medical officers called in in consultation said that more mercury was needful, and it was given, and the man died. Occurrences like these made him sceptical, and during his residence in Paris he determined to make syphilis a study. Indefatigably attending the various lectures on the subject, he could hear nothing consistent or coherent. Making inquiries and experiments, he found that the facts did not agree with the doctrine. He established the fact to his own conviction that *men might get syphilis from women who had it not*; for he caused examination to be made of the women from whom men alleged that they got their illness, and very few of the women were found diseased. At Valenciennes, where there were 10,000 men in garrison in 1816-18, the examination of women was rigorously carried out, and though 150 or 200 men might be in Hospital for syphilis, yet perhaps not five or six women could be found who were diseased, and it was proved that these were not the women who infected the sick men. This, then, was Dr. Macloughlin's first datum—"syphilis" contracted by intercourse is not of necessity caused by any disease in the woman.

The second datum was, that primary syphilitic sores, so called, are the effects of common injury—*i.e*, abrasion, fissure, excoriation, etc., produced when the health was out of order. To support this, he believed he found out that any sore, however produced, on the genitals was called syphilis, and treated as such. He quotes the case of a general officer who got an abrasion during a hard ride, which was pronounced to be syphilis; but Dr. Macloughlin treated it very simply—the man got well, continued well, and begot children, none of whom have shown a trace of syphilis to this day. From cases of this class he was also led to believe that there were no means by which a primary syphilitic sore (suppose there were such a thing) could be distinguished from one produced by common irritation.

Thirdly, with regard to so-called secondary symptoms, Dr. Macloughlin saw such cases as the following:—A very young gentleman got an excoriation, which was declared to be a syphilitic sore. A few days afterwards he committed a debauch, had vomiting, diarrhœa, and nettle-rash; was put into a warm bath and well rubbed; next day was mottled all over, and declared by the same authorities to have copper-coloured secondary symptoms. Dr. Macloughlin stoutly denied the specific nature of the case, and the celebrated Biett, who was appealed to, declared that no man could positively point out any symptom pathognomonic of a *primary* syphilitic sore, but that every one could diagnose a *secondary* eruption, which he affirmed to exist in the case before him. In this case, Dr. Macloughlin believes that he demonstrated, from official sources, that the women whom the patient frequented had no disease; that his primary sore was not specific, nor the so-called secondary; hence that what passed for secondary and primary syphilis might be mere common abrasion and eruption.

Dr. Macloughlin further collected cases in which symptoms declared to be secondary syphilitic were produced by fatigue and exhaustion, without the precedence of any primary. He further analyses secondary symptoms, and declares that there is not one pathognomonic; that sore throat, debility, loss of hair, cutaneous eruptions, enlarged glands round the occiput, nodes, iritis, or rupia, singly or together, may be results of debility and cachexia, without any specific enthetic virus, which, for the reasons further adduced in his letter of to-day, he believes not to exist.

Now we must grant that syphilis is not the brightest spot in the history of Medicine; that many cases were formerly called syphilitic and treated by mercury which would not be so now; that diagnosis was imperfect, and treatment coarse. Still it needs more than Dr. Macloughlin's facts to set aside the experience of nearly four hundred years, and his logic is of the sort that proves too much. The lawyers have a maxim that "hard cases make bad law;" and we may say that extraordinary cases make bad pathology. With modern views, the notion of deciding the non-existence of syphilis in women from inspection of the vagina would not be entertained. If difficulty of identification be a proof of non-existence, then there is no such man as Barrett the Fenian. That some symptoms most suspiciously like those of syphilis occur from time to time in the innocent and untainted, is true enough, and ought to be a perpetual motive for care and circumspection. But the observation of mankind has shown beyond doubt that there is a set of outward and inward changes sufficiently constant in their appearance and behaviour to be designated by one name, which name is constitutional syphilis; that these symptoms, instead of being scattered broadcast amongst society, are almost exclusively present in persons who can trace their origin to infection—that certain phenomena can be pretty accurately predicted of persons so infected—as, for instance, abortion and infection of the fœtus—and since mankind cannot do without names, we are entitled to give the name syphilis to the whole series of pathological phenomena, and to assert the existence of a something which we call a virus as the starting-point. As to the nature of the virus we know nothing, but we assert its existence from its effects.

We have been thus long in dealing with the doctrines of our indomitable veteran, partly because they seem to us to exhibit an example of a too severe logic, savouring of the ancient schoolmen rather than of modern physical science, and partly because they are constantly brought under the notice of the Government and House of Commons, where even more paradoxical doctrines sometimes find supporters.

THE WEEK.

TOPICS OF THE DAY.

The recent debate in the House of Lords on the present working of the Poor-law system of relief may be taken, we believe, as an evidence of a turn in the tide. Speaker after speaker rose to reiterate the position we have always maintained in this journal, that Poor-law Medical relief is not a matter of charity, but of law and justice; that the burden of increased poor's-rates does not fall so heavily upon the rich as upon the industrial classes; and that a system of indiscriminate relief would be a prelude to universal pauperism. The debate arose upon a motion of the Earl of Carnarvon for a copy of some correspondence which had been carried on between the Poor-law Board and the Guildford Guardians. This correspondence had reference to the refusal of relief to professional vagrants by the Guildford assistant relieving officer, who, true to his instincts as an ex-policeman, had refused lodging to known tramps, whilst, however, he always admitted those who appeared to him honestly endeavouring to obtain work. Although much might be said for the principle on which the Guildford official acted, it was clearly illegal, and has been condemned by the Poor-law Board. But the discussion soon left the narrow limits of casual relief, and extended to the whole Poor-law system of the country. Lord Overstone and Earl Fortescue protested against enlarging the area of taxation beyond the area of administration. Relief of any class above the destitute necessarily involves injustice to every other class, and, unquestionably, the vigilance and caution fostered by local taxation is one of the few safeguards the public can have against turning legal provision for the absolutely destitute into indiscriminate charity for the lower classes *en masse*.

A new champion of reform in Medical education has entered the lists in the person of the Right Hon. H. A. Bruce, M.P., who, on distributing the prizes in the Faculty of Medicine at University College on Tuesday last, gave an address in which he showed himself well versed in the defects of the present system. In fact, as he frankly admitted, he had been studying Mr. Simon's late address on the subject, and reproduced the most telling of that gentleman's figures and facts. But Mr. Bruce called on the Medical Council to revise the whole system of Medical education and examination, and advised that body to apply to Parliament for the power which he acknowledged at present they do now not possess. This is significant, coming, as it does, from a past and future Minister.

Professor Roscoe's second lecture, delivered at Apothecaries' Hall on Saturday last, was a very great success. His experiments were eminently beautiful. The first subject explained and illustrated was the position of the chemically active rays in the solar spectrum, an admirable illustration of which was afforded by the experiment of photographing with the violet rays, whilst the same process attempted with the red rays entirely fails. The effect of increase of heat in developing the spectrum of an incandescent solid was shown by means of platinum wire, which heated to redness is invisible through a blue transparent medium, but heated to whiteness becomes perfectly visible. The continuous spectrum of incandescent solids was contrasted with the broken spectrum of glowing gases, and then the lecturer passed on to the application of spectrum analysis to chemistry. The spectra of elementary bodies and of compounds, the spectra of coloured flames and of the metals, of the alkalies and alkaline earths were examined and demonstrated. The wonderful delicacy of the spectrum analytical method, by which, for instance, the 180,000,000th part of a grain of sodium can be discovered, was illustrated in various ways. Sodium is present almost universally; it is almost impossible to exclude it; it exists in every particle of dust, in every mote in the sunbeam. The yellow colour it gives to flame shows its presence when any article of dress, for instance, is shaken near a colourless flame. Lithium, again, known by its red line, is shown, by spectrum analysis, to be much more universally present than was heretofore believed. It exists in the ashes of marine plants, in the grape, in blood, in muscular tissue, in tobacco. Bunsen, whose cigar is constantly in his mouth, is always ready to demonstrate lithium in its ash. These were some of the points of this most interesting lecture. A darkened room does not admit of note-taking, so we must apologise if our report affords but a very imperfect notion of the original. The crowded audience, which included a large number of Medical and scientific celebrities, frequently testified by hearty applause their appreciation of the beautiful experiments shown them.

The benefits which must accrue to the community from the extension of the operation of the Contagious Diseases Act to the large towns of this country have been stated in the House of Commons by Mr. Liddell, and acknowledged by Mr. Bruce. We may therefore expect that before long a measure for effecting such extension will be introduced. We are glad to see that, at a recent meeting at Newcastle-on-Tyne, not only the Mayor and the chief members of the Medical Profession, but several of the leading clergy and

dissenting ministers, combined to form a local branch of the Association for extending the present Act to the civil population. The Archdeacon of Durham, the Vicar of Newcastle, and the Rev. Dr. Bruce, a nonconformist, addressed the meeting. Nowhere are venereal diseases so rife and so deadly as in English seaport towns, and, as Dr. Charlton stated at the Newcastle meeting, the worst forms of syphilis are exported to the Continent from England. If the clergy will co-operate with the Medical Profession to obtain State interference to limit the spread of this disease, we are certain that a large amount of human misery must be prevented. Were it only the guilty who suffered, a doubt might be felt as to the necessity for State interference; but the fact that it is not so removes the case from the region of debate.

Our Profession will be glad to learn that the Trustees of the British Museum have appointed Dr. Cobbold to the Swiney Professorship of Geology. A more able cultivator of natural science is hardly to be found in our ranks, and few who have rendered more practical service to Medicine than he has done by his study of the Entozoa. Dr. Cobbold will, we believe, give his first course of lectures on Palæontology at Edinburgh.

The trial of one Henry Harman, an attendant in the Lambeth Workhouse Infirmary, for manslaughter, at the Central Criminal Court last week, offers an almost incredible instance of the careless way in which medicines are dealt with. The prisoner was acquitted, but the facts remain that he gave *proprio motu* to a patient suffering from cerebral disease an unknown quantity of a solution of morphia and opium, and that the man was found dead in his bed a few hours afterwards. It appears not to have been the attendant's, but the nurse's duty, to administer the medicines. There were, nevertheless, about twenty-five bottles of different medicines in the ward, one of which contained ten grains of acetate of morphia and two drachms and a half of Battley's solution of opium. These, as far as we can see from the evidence, were kept on shelves to which anybody had access. The report we have seen states that the prisoner "seemed a weak-minded creature and offered no defence." Comment is superfluous.

At a Congregation of the University of Cambridge, held on May 7, the report of the Board of Medical Studies as to the requirements for the M.D. degree was confirmed.

Earl Granville, in his speech at the meeting for the admission to degrees of the University of London on Wednesday, adopted an apologetic tone on the subject of the examination of women, which we should have thought hardly necessary in addressing so advanced an audience. The fact that they were only excluded from the degrees of the University by the noble Earl's casting vote appears to us equally a proof of the excessively liberal cast of that body and of the good sense of their President. There can be no possible objection to giving young women the same education as young men if they are to perform the same duties; but as this has hitherto not been held to be the intention of their creation, we look upon the present movement as the most crucial attempt to solve the mystery of the origin of species by development under a new phase of existence which the world has yet seen. We commend it to Mr. Darwin's special attention.

Two Medical dinners took place on Wednesday evening—the Bartholomew's "view" dinner, presided over by His Royal Highness the Prince of Wales; and the Medical Benevolent dinner, presided over by Earl Granville. In the course of one of his speeches, the Prince of Wales paid a deserved compliment to Mr. Holden for his care of the sufferers from the Clerkenwell explosion. He referred to the want of a convalescent Hospital in connexion with St. Bartholomew's, and promised his aid in establishing it. Mr. Foster White, the treasurer, announced that the governors of the Hospital and the Merchant Taylors' Company were in communication on the subject of erecting conjointly a convalescent Hospital at an outlay of £45,000 by each corporation. The amount of subscriptions announced at the Medical Benevolent College dinner was about £800.

The fact that Mrs. Isabel Thorne has passed the Arts Examination at Apothecaries' Hall, together with the intelligence that that lady is in practice as an accoucheuse, and her place of residence, have been widely circulated in the daily papers. There was, however, no mention of another fact, that the having passed the Arts Examination at the Hall gives the lady no right to present herself for any Professional examinations until she has complied with the requirements of the Court of Examiners.

We have received a Teignmouth paper containing an account of the activity in sanitary matters of the local board. Drainage, deodorisation, and water supply seem to be well attended to, and the board are evidently determined that their town shall lose nothing as a health resort from any supineness on their part.

KING'S COLLEGE.—THE JELF TESTIMONIAL.

At the last meeting of the Committee of the Jelf Testimonial Fund, held at King's College on the 7th inst., the treasurer reported that the sum of £521 14s. 6d. had been already received. It was resolved that the subscription-list shall be closed at the next committee meeting, which will take place on Thursday, June 4, and that, if practicable, the public presentation of the testimonial to Dr. Jelf shall take place on Friday, July 3 next, the day appointed for the general distribution of prizes, this being the last day of the present term and of Dr. Jelf's presidency over King's College. In accordance with a resolution proposed by Dr. Fowler, seconded by Dr. Sansom, and adopted by the Committee at a previous meeting, one-half of the total sum raised will be applied to the purchase of a piece of plate, to be presented as a personal testimonial to the retiring Principal, and the remaining moiety will be devoted to the foundation of prizes in the College and School, to be called the Jelf Prizes, and which will serve to perpetuate Dr. Jelf's memory in connexion with the institution over which he has, for the past twenty-four years, so ably presided. In furtherance of these objects, two subcommittees were appointed, one to select a suitable present as a personal testimonial, and the other to report to the Committee, at their next meeting, as to the best method of carrying into effect the second part of Dr. Fowler's resolution. We beg to remind those who desire to subscribe to this fund, and have not yet done so, that they should forward their subscriptions to either of the treasurers or secretaries before the 4th of next month, when the subscription-list will be closed. The treasurers are J. W. Cuningham, Esq., and Henry Worms, Esq.; the hon. secs., Professor Plumptre, Professor Bentley, and the Rev. B. W. Gibsone.

THE BOTANICAL PROFESSORSHIP AT OXFORD.

The delay which has taken place in the appointment of Dr. Daubeny's successor to the Sherardian Professorship of Botany at Oxford is, we understand, about to come to an end at last. The delay has arisen from some difficulty in comprehending the statute of the University which fixed the qualification of the candidates for the chair. The founder of the professorship placed such restrictions on the qualification of those who were to be considered eligible for the appointment, that some five or six years ago the University, in accordance with the wish of the College of Physicians, obtained parliamentary powers "to vary and define the qualification," so as to extend the field from whence the Professor might be chosen. It was then also arranged that the election should be made by the President and Council of the College of Physicians, *vice* the whole College, and the University statute determined that those only were eligible who had been admitted *ad incipiendum in artibus*. A restriction imposed by the founder, that every-

men in holy orders were not admissible, was retained. It seems that it was necessary to take legal opinions as to the real meaning of the statute, which has now been interpreted to imply that no one was eligible as a candidate for the Sherardian Professorship of Botany except he was a Master of Arts of Oxford, and that if he were a clergyman he was ineligible. It is said that a Master of Arts of Cambridge, if incorporated at Oxford, was also eligible, but on this point there is some obscurity. It is thus seen that, however great as a botanist or distinguished as a teacher a man may be, his claims fall to the ground before the doubtful qualification of a Master of Arts, even though he were a Doctor of Medicine of this same University. The College of Physicians will thus find themselves compelled to reject the application of some of the most eminent living botanists who do not happen to possess a degree of M.A. The statute is so eminently unjust, and so injurious to the character and interests of the University, that it is evident it must have been framed without due consideration. Oxford, under a wise and generous rule, is seeking to widen its portals and to extend its influence. We see this effort especially in its Medical department, and surely it is unwise to inflict the injustice on its Medical graduates of repudiating altogether their qualification for a Professorship which is so eminently Medical in its relations. To issue a new statute, before candidates are called, for extending and defining more clearly the qualification for this Sherardian Professorship, is a duty incumbent on the University, and one so easily performed that we look with confidence to its accomplishment.

THE IRISH POOR-LAW MEDICAL SERVICE.

An article in the *Journal of the Irish Medical Association* reiterates the appeal we made last week in behalf of the Irish Poor-law Medical officers, and it goes beyond what we said, inasmuch as it calls upon these gentlemen to help themselves. The example of the Birmingham Medical men is cited as an example of what can and should be done. Hitherto, it is said, competition has kept the salaries at the low rate they are now, and it is desired to stop this. It is also affirmed that the competition for the most part depended on young and newly qualified men coming forward, simply because they did not know what to be about, and were desirous of earning some money whilst they looked about them. This, we fear, is too true, and is, probably, further one of the most important reasons why Medical men have not before this time taken the position which is by rights their due. Most young men after passing are naturally anxious to gain some money. They have pressed long enough on their parents' resources, and they wish to be independent. Hence they are tempted to take the first thing that offers, however poor it may be, trusting to their industry to improve their position. Against the spirit which thus actuates them we have nothing to say; indeed, it is highly laudable that men should be thus anxious to be on a level with their fellows, but the results have been disastrous. We are cognisant of more than one instance in which an appointment, at one time tolerably well paid, has sunk into the condition of a purely honorary one, the patrons being too wide-awake to pay for what they could get for nothing. The question of unremunerated or insufficiently paid labour is, in our Profession, daily assuming a more and more important aspect. Men are beginning to find that being attached to a Dispensary or minor Hospital is no royal road to practice, and they begin to seek a *quid pro quo* for their labours. Indeed, one of our most important Dispensaries is without one of its chief officers at this moment for the reason we have given. Men are getting tired of working for nothing. Now, what is to be done under such circumstances? We are entirely hostile to anything like trade-unionism in our Profession; but the evil is a crying one, and demands a remedy. The Irish Medical Association have in this matter assumed as their motto, *Fortior unitate*, but the grand difficulty is to secure at once this unanimity and the dignity of the Profession to which we belong. Anything like a trade-union would sink it to the level of a disgusting trade. It is a case, we think, in which the strong ought to fight for the weak, and particularly is it the duty of our teachers to impress upon the youths under their charge the necessity of acting uprightly and as honourable men in such a juncture. Unfortunately for them, the necessities of many members of our Profession compel them to submit to indignities unworthy of their position in life. If to these a helping hand was extended by men in a better position than they are, many of the present difficulties might have been obviated.

LORD BROUGHAM.

The longevity of lawyers, as compared with the members of most other professions, except the Church, has frequently been remarked upon. Lord Brougham has just died, within five months of the completion of his ninetieth year. He was born on September 19, 1778. Two-thirds of his life was passed amid the turmoil and wear and tear of intense mental and moral excitement, and his death at last was merely the peaceful cessation of life as the natural result of extreme old age. He had been in his usual state of health during the day, had taken his usual carriage airing, and retired to rest at his usual early hour, and shortly afterwards it was discovered by his valet that he had died in his sleep.

He was a universal genius. His first and last scientific production was a treatise on optics and the laws of light. It is stated that on one occasion he contributed all except two of the articles in a number of the *Edinburgh Review*, and that one of his papers was on lithotomy!

A MAGNIFICENT HOSPITAL!

Mr. Leigh, the newly appointed Medical Officer of Health for Manchester, proposes to take active measures for reducing the mortality from infectious and zymotic disease. In ten years it is said that 10,945 persons died in Manchester from five infectious diseases. We do not know the rate of mortality in those diseases, but, supposing it to be 1 in 10, the 10,000 deaths represent 100,000 cases, each of which was attended with suffering, expense, loss of working time on the part of parents obliged to nurse children, loss of schooltime on the part of sick children, permanent weakness, scrofula, consumption, and imperfection of eyes and ears and lungs, consequent on small-pox, scarlet fever, and hooping-cough. To arrest this devastation, Mr. Leigh proposes the isolation of the first cases by removing them to a Hospital; and it is calculated that the cost of the fatal cases alone would suffice to erect a "magnificent Hospital." We hope that the promoters of this scheme will take counsel as to the history and operation of Hospitals, and they will probably find that an inexpensive range of cottages or sheds which could be pulled down would be better for their purpose than any "magnificent" and therefore permanent and expensive building, about which the poison of scarlet fever could hang indefinitely.

STATHAM DEFENCE FUND.

In compliance with a resolution passed at the last meeting of the general committee of the Statham Fund, the deputation then appointed called on Mr. Statham, on Friday, the 8th inst., to present him with the sum subscribed. In the unavoidable absence of Dr. Richardson, and at the request of his other colleagues, Messrs. Saunders and Ibbetson, Dr. Cholmeley placed in Mr. Statham's hands a cheque for £320 15s. 6d., observing that he had the honour and pleasure of presenting it to him in the name of a large number of his brethren of the Medical and Dental Professions, as a substantial mark of their sympathy, and their undiminished confidence in his unble-

mished honour, integrity, and Professional skill; and remarking that, as the list of subscribers to the fund included many of the most eminent and honoured members in the two Professions, and coming as it had from his brethren not only in England, but also in Edinburgh and Dublin, he would venture to say it constituted such a testimonial to integrity and worth as any man might feel some pride in receiving. Mr. Statham replied in a few words expressive of his warm thanks for the generous sympathy and support he had all along received, and declaring that so long as memory and thought remained to him he never could forget the kindness he had experienced.

THE SLAVE TRADE.

The naval squadron on the West Coast of Africa is being gradually reduced, and from the statement of the results of its maintenance during the last ten years, put forward by Colonel Sykes in the House of Commons on Monday night, its total recall ought no longer to be deferred. In ten years, from 1858 to 1867, 88 officers and 360 men died; the average ratio of cases placed on the sick list was 2002 per 1000, and the average of deaths was 27·9 and of invalids 53·5 per 1000, giving a total annual loss of 81 per 1000. During the same time 8330 slaves were liberated; but in the years 1865 and 1867 none, and in 1866 only three were released. It would be just as effectual, and much easier as a preventive measure, to watch the several ports of Cuba and the other Spanish West Indian Islands, which are the only places now into which slaves are imported. A smaller squadron would probably suffice, and although such service can never be expected to become agreeable, it would be attended by a much less expenditure of health and life.

OUR INDIAN SOLDIERS' BEER.

On Monday last Mr. Bass drew attention to the practice adopted in India for restoring unsound malt liquor. Sir S. Northcote confessed that the practice had existed, but that he ordered it to be discontinued, in consequence of the opinion of "high chemical authorities" that it was inconsistent with the health of the troops. Mr. Green also asked if Government took the lowest tender for beer for India, which he thought was not calculated to give the troops a sound wholesome beverage, inasmuch as beer could not be produced, at the price accepted for last season's supply, that would travel eight thousand miles by sea and a thousand or two thousand by land, and be fit for the soldier to drink. To this Sir S. Northcote replied that the brewing takes place under the inspection of qualified officers, and the lowest tender is only accepted subject to compliance with the specifications. This may be all very well as a reply, but it is far from satisfactory, for we well know that during last summer there were many hundreds of hogsheads of beer intended for India, shipped from London, which had turned off and become unfit for drinking before they had passed the Margate sands. Our heavy Saxon beverage is hardly adapted for residents in the tropics, even "in the refined form of pale ale," but in the form in which the soldier obtains it—thick, sour, and flat—we cannot wonder at its requiring something to keep it down, or at its producing diarrhœa and other affections of the bowels and liver, to which the climate has already predisposed him. In a communication which we published in April, 1866, cider was proposed as a substitute for beer. Sir James R. Martin and many other eminent Medical men concur in believing that if it could be procured for the men it would be the means of improving their health and of reducing the mortality greatly. It is well known that beer and rum kill more in India than the sword. There are many regions in that country in which the apple may be cultivated, and in many districts the soil is well calculated to grow cider crops. The experiment, at all events, is worth trying. The evils of the present system are patent enough, and now that the subject has obtained attention, we hope that those who have initiated the inquiry will follow it up.

FROM ABROAD.—AFFECTIONS OF THE TENDONS IN LEAD POISONING—CHLOROFORM IN OPERATIONS UPON CHILDREN—PRECOCIOUS DENTITION.

At the Paris Hospital Medical Society M. Gubler recently read a paper on an affection which is new to him, but of which he has lately met with three examples—viz., a lesion of the tendons of the extensor muscles of the wrist and fingers in subjects suffering from saturnine paralysis of these muscles. In these cases, shortly after the occurrence of the paralysis, a circumscribed swelling of the extensor tendons was observed, extending from the wrist to the middle or two-thirds of the metacarpus. The swelling was hard and nodose, but was formed without pain, although this was produced in a slight degree by pressure. The sheath of the tendons participated in the tumefaction, and on the back of the hand a series of three or four rounded and cylindrical digitations were observable which caused a projection of the skin to the extent of two or three millimètres. In one of these patients M. Gubler found that as the paralysis of the muscles gradually disappeared in the course of two months, so did this deformity of the tendons. The patient died of some intercurrent affection, and no trace of a changed condition was found either in the tendons or in their sheath. An interesting point in another of the cases was that, although the patient had never before presented any sign of gout, there arose, at the same time as the tendinous tumefaction, an articular swelling of the great toe, with redness, heat, and severe pain, giving it very much the appearance of an attack of gout. M. Gubler, however, is not of opinion that gout was the cause of any of these appearances, which were, in fact, due to simple arthritis; for being desirous of searching for the presence of uric acid in the serosity, and having applied a blister to the back of the head, a phlegmonous inflammation of the skin resulted, proving the patient to be under a strong disposition to phlegmasia. However this may be, he thinks that these changes in the tendons are due to disturbance of the nutrition of the muscles during their paralysed state, a process of hyperplasia being set up. In relation to this subject he called attention to Dr. Garrod's views as to lead poisoning being a predisposing cause of gout, and to the frequency with which this disease is observed among plumbers in London. He believes, however, that we must be very scrupulous in not mistaking a mere coincidence for cause and effect. M. Bucquoy stated that he had observed decided gout in a patient suffering from lead poisoning, the analysis of the concretions exhibiting the urates. This patient, 35 years of age, had never been in the habit of committing excesses, and had never had an attack of gout before. M. Potain also stated that he had recently had at the Necker a house-painter under his care, admitted for lead colic, and who in his antecedents had exhibited no disposition to gout, and who had a painful swelling of the great toe, having every resemblance to gout. Every one knows how rare gout is in the working classes, and it is very unlikely that this was a mere coincidence.

M. Giraldès, on presenting the second number of his *Maladies Chirurgicales des Enfants* to the Société de Médecine de Paris, drew the attention of his colleagues to the chapter which relates to the employment of anæsthetics in operations upon children. He especially wished to protest against the discredit thrown upon them by M. Bouvier in an article contained in the seventy-third volume of the *Bulletin de Thérapeutique*, in which he gives an account of the three fatal cases of death under chloroform which have occurred in Germany, and one from the use of chloroform and ether in combination in the United States. If his views were to be adopted, it would be a

calamity. He is, indeed, not an operator, and is not competent to speak on the question. Anæsthesia is, in fact, extremely rarely fatal in childhood, and of these four cases in two its agency is very questionable. Chloroform has wholly changed the face of the Surgery of childhood, and were its employment banished from the use of Surgery in general it would still be desirable to retain it for that of childhood. In diseases of the eyes, in injuries of the elbow, for the purpose of ascertaining whether fracture exists, in phlegmonous erysipelas, etc., in order to make the examination necessary for an accurate diagnosis, we must administer anæsthetics; for the child, being excessively sensitive, struggles and resists so as otherwise to render this impossible.

One statement made by M. Giraldès we could have wished to have been more explicit. He says: "It is only at Paris that chloroform is employed. In certain provincial towns the use of this anæsthetic is unknown. Thus at the Hôtel-Dieu of Amiens chloroformisation is not practised." What does he mean? Are there towns in France at the present day where operations are still performed without resorting to anæsthetic agents? Or do the Surgeons merely refuse to employ chloroform, resorting, as at Lyons for example, to the use of ether or other agent? The first supposition is simply incredible!

M. Guéniot related to the Société de Chirurgie the case of an infant which, when nine days old, exhibited a spontaneous expulsion of the two middle upper incisor teeth, together with the destruction and expulsion of the dental bulb. There was some gingival stomatitis, but no abscess of any kind. The teeth resembled two solid shells, covered with a thin layer of enamel. These cases are rare. In connexion with this subject, M. Guéniot enumerated several celebrated persons who are said to have been born with teeth, such as Mirabeau, Mazarin, Louis XIV., to which he would have added that of M. Broca had not this gentleman disclaimed any right to such a distinction. Believing the fact generally admitted, that infants are occasionally born with teeth ready cut, we are greatly surprised to find so experienced an accoucheur as M. Blot utterly denying its accuracy. He says he has never met with an instance of its occurrence in 30,000 infants that have come under his observation, and the experience of his colleagues is just as negative. However, that unfailing repertory of information, M. Giraldès, was enabled to refer to numbers of cases of children born with one or more teeth; and he has met with similar cases in his own practice. M. Besnier observes also that such cases are familiar enough to matrons, who are in the habit of at once extracting the teeth. We suspect that this operation must have been already performed in cases that otherwise would have attracted M. Blot's attention.

PARLIAMENTARY.—CAPITAL PUNISHMENT WITHIN PRISONS BILL—THE MEDICAL PRACTITIONERS (COLONIES) BILL—FEVER AT THE MAURITIUS—INFECTIOUS DISEASES—ARTISANS AND LABOURERS' DWELLINGS BILL—BEER FOR INDIA—POOR-LAW RELIEF—THE METRIC SYSTEM.

On Thursday, May 7, in the House of Lords, the Duke of Richmond moved the second reading of the Capital Punishment within Prisons Bill.

Lords Cranworth and Houghton expressed their approval of the Bill, which was read a second time.

The Medical Practitioners (Colonies) Bill was read a third time and passed.

Colonel North asked the Secretary of State for War whether it was [illegible] to the military stationed at the Mauritius, that there was now an ample supply of quinine and other drugs, which there had not been [illegible] the attacks of fever now prevalent in that island.

Sir J. Pakington was happy to say that there was not, and [illegible] that [illegible] upon a [illegible].

On Friday, May 8, Sir J. C. Jervoise, after a somewhat discursive introduction, in which he touched on leprosy, small-pox, the failures of vaccination, and the "absurdity and cruelty of quarantine," moved—

"That an humble address be presented to her Majesty, praying that she will be graciously pleased to cause such inquiry to be instituted into the spread of disease by infection (distinguished from contagion) as may tend to check legislation and action in cases unsupported by the evidence which in [illegible] people from the commission of great crimes or great follies."

Mr. Liddell, in seconding the motion, said that his object was to extend the inquiry to a class of diseases unfortunately too prevalent, and to see whether the provisions of the Contagious Diseases Act might not be applied to all the great towns of the kingdom. Many Members of the House were aware that there existed an important association whose object was to have that Act extended to the great towns, and further, almost every great town in the country was prepared to ask for the same boon. Within the last few days the great town with which he was connected had held a very important meeting upon the subject, and was prepared to ask the House to extend the Act to them, and he desired to add his voice to theirs.

Lord R. Montagu, in reply, stated that the object of the motion was already being carried out by the Medical Department of the Privy Council, whose reports were year by year laid before Parliament. This year, he informed the House, a special inquiry was being made regarding the communicability of typhus and other diseases by inoculation.

Mr. Bruce defended vaccination from Sir J. C. Jervoise's attack by referring to the benefit vaccination had lately conferred on Ireland. He stated that in 1864, according to the report of the Commissioners, 854 persons had died in Ireland of small-pox, in 1865 the number was reduced to 347, in 1866 to 187, and in 1867 only 20 had died. He agreed with Mr. Liddell on the question of the extension of the Contagious Diseases Act, and recommended that gentleman to bring forward a special motion on the subject.

The motion was then by leave withdrawn.

The Artisans and Labourers' Dwellings Bill was read a third time.

On Monday, in the House of Lords, the Capital Punishments within Prisons Bill was read a third time and passed.

In the House of Commons questions were asked by Mr. Bass and Mr. Greene in reference to the beer supplied to the troops in India. Sir S. Northcote, in reply, said that in one or two instances means had been resorted to for restoring unsound beer in India, but that, on advice obtained from high authorities, the practice had been discontinued. It was not the case that the lowest tender for beer was taken as a matter of course. Specified particulars were sent to the brewers, the brewing was effected under the inspection of officers, and chemical tests were subsequently applied. More than that, the brewers were bound to furnish the Inland Revenue with certificates in respect of the brewing. This system had hitherto worked very satisfactorily, no complaints having been made of the quality of the beer supplied to the troops.

On Tuesday, in the House of Lords,

Lord Carnarvon moved for a copy of the correspondence which had recently passed between the Poor-law Board and the Guildford Board of Guardians, in reference to the relief of vagrants in that borough, in reply to which Lord Devon said he had no objection whatever to the production of all the papers, and he hoped their lordships would give their attention to the statement which would be laid before them. Lord Overstone and Lord Redesdale both thought the question of vagrancy was growing so serious that it would soon be necessary to institute a most searching and comprehensive examination into the whole Poor-law system of the country; while Lord Carnarvon thought the area of taxation was too narrow, a doctrine against which Lord Fortescue strongly protested. Lord Kimberley thought, as a matter of humanity, it was right to make a distinction between the manner of treating the sick and the aged poor and the manner of treating the able-bodied poor; but, as regarded the principles on which relief should be given under the Poor-law, he maintained those principles ought to be applied to all classes of the poor, without distinction. He

contended that one of the duties of boards of guardians was to see that the interest of the industrious and deserving poor was properly cared for. He meant that they should not be put in a position in which they could justly complain of the relief that was given. The burden of the Poor-law did not fall only on the rich, but also on the poor, and he had frequently met with poor persons who constantly remonstrated against the relief given to persons who, they said, were perfectly able to maintain themselves. The poorer ratepayers were as jealous as any class of the community about relief being granted where it was not really deserved. These were feelings which it was desirable to encourage, and he trusted that in considering any alteration in the administration of the Poor-law they would be carefully borne in mind.

After a few words from the Duke of Cleveland, the motion was agreed to.

On Wednesday the second reading of Mr. Ewart's Bill for introducing the metric system of weights and measures into this country was carried by a majority of 217 to 65.

CEREMONY OF LAYING THE FIRST STONE OF THE NEW ST. THOMAS'S HOSPITAL.

In our last week's impression we gave a succinct account of the plans for the new Hospital, and the arrangements for laying the foundation-stone by her Majesty the Queen. Our readers are already acquainted with the precise details of the ceremony, as given by the daily press. It only remains for us to summarise these details for the benefit of old St. Thomas's men who may not see the London papers.

The pavilion, which was erected to seat 3000 people, was handsomely decorated with crimson and white drapery, flags, and banners. On the dais chairs were arranged to accommodate the Queen, the Royal Family, and the ladies and gentlemen in waiting. A canopy of blue velvet fringed with gold was suspended over the dais. The space in front was decorated with flowers, and in the centre of this foreground was the stone. In the spacious entrance hall the arms of the Hospital were suspended, surrounded with the following inscription — "Floreat Hospitium Sancti Thomæ." The company, which comprised her Majesty's Ministers, members of both Houses of Parliament, the Lord Mayor and Corporation of the City of London, the Governors and the staff of the Hospital, had mostly arrived before eleven o'clock. The arrival of the Queen and the Royal Family was announced by the firing of guns, the ringing of bells, and the National Anthem played by the band of the Grenadier Guards outside the pavilion. Her Majesty was met at the entrance to the pavilion by the President and Treasurer and a deputation of Governors of the Hospital. A procession was formed, consisting of the contractors, the architect, representatives of the Medical staff, and a deputation of the Governors. Immediately preceding the Queen were the President and Treasurer, who escorted her Majesty to the chair of state. The band then struck up the National Anthem, which was sung by a choir of boys from St. Paul's and the Chapel Royal, and in which the company joined. A short address was read by the President and presented to her Majesty. The Queen then advancing to the stone proceeded to deposit beneath it copies of the charters of the Hospital and current coins of the realm. The trowel, an elegant piece of workmanship, the handle of gold ornamented with jewels, was handed to the Queen, who spread the mortar. The stone was then lowered. A prayer having been offered by the Archbishop of Canterbury, and the 100th Psalm sung, his Grace pronounced the benediction, which concluded the ceremony.

Besides the staff of the Hospital, we noticed many distinguished members of our Profession, amongst whom were the President of the Royal College of Physicians and Mrs. Alderson, Sir Thomas Watson, Sir Henry Holland, Sir Charles Locock, Dr. and Mrs. Frederick Farre, Dr. and Mrs. Chambers, Dr. and Mrs. Acland, Dr. and Mrs. Sieveking, Sir William and Lady Jenner, Dr. Gream, Dr. and Mrs. Pitman, the President of the Royal College of Surgeons and Mrs. Hilton, Mr. Quain and Lady Midleton, Mr. and Mrs. Edward Cock, Sir William and Lady Fergusson, Mr. and Mrs. James Paget, Professor and Mrs. Huxley, Mr. and Mrs. Cæsar H. Hawkins, Mr. and Mrs. Spencer Wells, Mr. and Mrs. George Pollock, Mr. and Mrs. Charles Hawkins, Sir James and Lady Ranald Martin, Dr. George F. Paget (of Cambridge), Dr. and Mrs. Storrar, Dr. and Mrs. Francis Hawkins, the Master of the Apothecaries' Society and Miss Cooper.

GRESHAM LECTURES ON MEDICINE.

DELIVERED BY

E. SYMES THOMPSON, M.D., etc.

CONCLUSION OF THE EASTER COURSE.

Pain may be due to excess of blood or intensity of nerve-currents, for the violent excitement of any sensation is painful, the moderate excitement being pleasurable. Congestion or intense currents in the organs of special sense do not give rise to pain; but in the eye flashes of light, in the ear noises, in the tongue peculiar tastes evidence deviation from the normal state.

Pain arising from overwork is probably often due to the absence of force necessary for functional activity. This force, we have seen, is directly gained from the blood. It is not necessary, as formerly supposed, for food to be converted into tissue before it can be applied as work; all that is needed is that nutrient matter should gain entry into the blood. We may, therefore, look with greater confidence to food as a rapidly acting remedy for exhaustion, whether muscular or nervous.

Faulty removal of waste products is another common cause of pain. When the circulation is feeble or the blood poor, force is soon exhausted, and a sense of tiredness or pain occurs; whereas, when the circulation is active, food supply ample, and the excreting organs in good order, the amount of work that can be accomplished without pain or exhaustion is very great. The pain of gout, rheumatism, ague, etc., is due to the presence in the blood of a material which acts as an irritant to the sentient nerves, and the pain continues until, and often for a long time after, the removal of the poison. Pain of a throbbing pulsatile character depends on vascular turgescence, the pain varying in character with the firmness or yielding nature of the texture involved.

The disappearance of pain under excitement is no proof that the suffering is fanciful. A strong emotion or effort of mind may so modify the course of the circulation as to relieve local hyperæmia, and the full concentration of the mind in one channel leaves no opportunity for the withdrawal of the attention to another.

Instances were mentioned which had come under the eye of the lecturer, after railway accidents, etc., in which during great excitement no pain was felt from severe injury. Dr. Livingstone's sensations when under the paw of the lion were quoted as illustrating the same phenomena. Counter-irritants were alluded to as serving to withdraw the attention of the system from a real malady to an artificially developed one.

The long interval often observed between the occurrence of pain and the cause, as instanced by muscular stiffness, which often appears two or three days after the exertion that caused it, headache from brain exhaustion, dyspepsia after debauch—to say nothing of those disorders in which the poison undergoes in the body a process of maturation or incubation, and developes its effects after a long, but for the most part definite, interval—is apt to mislead us in our search for the cause of the morbid condition.

The position of a pain due to habitual impression, or to the reference of the sensation to the termination of a nerve when the trunk is injured (in the case of an amputated foot, or in the Talicotian operation) as in the often repeated instance of pain in the knee from hip disease—in the heart from indigestion—in the larynx from bronchial accumulation, is also often misleading.

Great advances have recently been made in the early detection of disease, and it is for the public to aid the Physician in this respect as well as in preventive and prophylactic treatment.

Pain is in itself so costly, and uses up so much force, that it is all-important to attend to its suggestions, not to teach the body to bear it, but take steps to remedy the disorder in the bodily machinery which its presence indicates. Pain, being dependent on deterioration of the vital processes, does not need to be attacked and killed by lowering remedies; but we

must stay and build up and restore the tissues to their healthy, natural, and painless state. The habit of constantly resorting to brandy for the relief of "spasms" and similar affections was reprobated, the employment of good soup being recommended in its stead.

The use and abuse of opiates, of theine, and its allies, quinine and strychnine, were pointed out—of anæsthetics, local and general; various forms of apparatus were exhibited. The lecture concluded with an allusion to the refining influence of pain—no nineteenth century refinement, but a change strikingly exemplified in the oldest book in the world—the history of the patriarch Job.

In the third and last lecture of the course it was shown that the so-called "functional" disorders of the nervous system are not (altogether) independent of actual change in the organs involved. There may not be, perhaps, marked alteration in structure, yet there is nevertheless present a deterioration, a state of lowered vitality, a tendency to speedy exhaustion, a diminished power of resistance and reaction, etc. Every one, when exhausted from want of food, worry, sleeplessness, or continued pain, is tottery and staggery in body, more mobile in mind than usual; an unexpected occurrence startles, the hand trembles, skin perspires, the bowels are relaxed, ability to control the emotions is lessened. The patient cannot stop laughing or crying, and soon, perhaps, begins to sob, scream, or fall into a fit of hysterics. Again, most people are occasionally gloomy, depressed, melancholy, inclined to exaggerate evil and see no good. This is but the delusion of an hour, and passes away after a meal, a lively conversation, or change of occupation. If this state continue, the individual becoming depressed, irritable, taciturn, inclined to consult Medical books and pester Medical friends, fancying his heart and a dozen vital organs are diseased, that he is made of glass, magnetised, or conspired against, we call this the "vapours," or hypochondriasis; or it may pass on into monomania, melancholia, or any intractable form of insanity. The frequency with which hypochondriasis occurs in those descended from insane parents shows the relation between the two states.

Great evil is often done by the extreme desire of the public after specialities. The tendency to separate mental from bodily disorders is fraught with danger. In mental affections early treatment is of paramount importance, and the mischievous effect of false shame in regard to the acknowledgment of mental disturbance, in the idea that such is an evidence of permanent injury of mind, is difficult to overestimate.

Classification and subdivision are important aids in Medical teaching, but in the desire for definiteness we must be careful not to draw marked lines between diseases really similar in nature, cause, and treatment.

It is well that the public should estimate the importance of comprehensive knowledge and of broad general principles as a basis without which no specialty can be safely built. The extremes of sanity and insanity are indeed widely separated, yet no line can be drawn between them. A condition exactly intermediate between hysteria and hypochondriasis is frequently met with among feeble youths who are closely confined in London offices and workshops, etc.; they have nothing to brace or invigorate them, and drift into a morbid condition of mind and body, and, gaining no sympathy or support from the regular Doctor, who pooh-poohs their long descriptions of *frightful* suffering, they fall by hundreds into the net of the advertising quacks.

Hysterical fits and hysterical affections—whether paralysis, aphonia, or any other manifestations of this Protæan malady—may not be difficult of cure, yet it is no easy thing to cure hysteria, for to do this a change of the nature of the individual is needed; and early discipline and careful education can alone eradicate the faulty condition.

Somnambulism, catalepsy, mesmeric trance, and the states produced by electro-biologists, clarvoyants, etc., were physiologically described, and extracts were read from Hecker's "Epidemics of the Middle Ages," about the dancing mania when 11,000 dancers were seen on St. John's Day, 1374, in the streets of Metz; of tarantulism and its more modern Abyssinian development, were also described, as well as the phenomena observed among the "Ranters," "Jumpers," "Barkers," etc., in which the eminently communicable disorder became the bond of union in certain religious sects. The lecturer mentioned instances of "revival" mania and convulsion which had occurred under his own observation, and exhibited diagrams and drawings of feigned disease.

REVIEWS.

On Vaccination: its Value and Alleged Dangers. A prize essay. By Edward Ballard, M.D. (Lond.), University Medical Scholar and Gold Medalist, Fellow of University College, M.R.C.P.L., and Medical Officer of Health for Islington. London: Longman, Green, and Co. 1868. 8vo. Pp. 391.

Small-pox and Vaccination. An essay. By T. Massey Harding, M.R.C.S.E., District Surgeon of St. Pancras Union, formerly House-Surgeon of Middlesex Hospital. Published by the Ladies' Sanitary Association, at their office, Pont-street, Belgrave-square. 1868. Pp. 66.

Vaccination: its True Use and Power. By Benjamin Godfrey, M.D., F.R.A.S., M.R.C.S.E., and L.S.A. Enfield: J. H. Meyers. 1868.

Vaccination: its Tested Effects on Health, Mortality, and Population. An essay. By C. T. Pearce, M.D., M.R.C.S.E., etc. London: H. Baillière. 1868. 8vo. Pp. 120.

Have you been Vaccinated, and what Protection is it against the Small-pox? An essay. By W. J. Collins, M.D., L.R.C.P.E., M.R.C.S.E., etc. Second edition. 1868. London: H. K. Lewis. Pp. 61.

A Handbook of Vaccination. By Ed. C. Seaton, M.D., Medical Inspector to the Privy Council. London: Macmillan and Co. 1868. Small 8vo. Pp. 488.

The public and the Profession have of late been greatly disturbed and "exercised" in mind—or, as a very eminent legal authority would politely put it, "in what they are pleased to call their minds"—on the subject of vaccination. While many unhesitatingly affirm that it is an invaluable blessing, undiminished in power, perfect in action, and a pure good, and demand that compulsory vaccination shall be more efficiently and stringently carried out, others, acknowledging its great value, denounce its compulsory enforcement as an interference with the rights of the subject; others, again, regard it as a doubtful good and a very possible evil, and declare that its protective power has greatly deteriorated; and some assert that, while its use has increased and is increasing, it ought to be put a stop to, affirm that it is the source of innumerable ills, and of ill only, that it is causing the deterioration of the whole human race and depopulating the world, and, of course, that its enforcement by law is a monstrous wickedness and injustice. And all this is not to be much wondered at, for, besides that "the spirit of the age" tends so generally to lead men to question, ridicule, or denounce whatever their forefathers have believed or respected, vaccination has been so largely neglected, or performed carelessly and imperfectly, that it has not had a chance of fully or fairly showing its power; while, on the other hand, small-pox has been comparatively so rare or so benign in character that people are really ignorant of the terrible powers of the scourge against which the protection of vaccination is offered. And, lastly, it cannot be denied that, on the Continent at least, vaccination has been made the means of infecting the system with the poison of syphilis, and some justification has thus been apparently given for the assertion that constitutional diseases may be, and frequently are, implanted in a healthy system through the medium of the vaccine lymph.

Under these circumstances, then, we say that no one can wonder that the value of vaccination has once more become a *quæstio vexata;* nor can any one deny that it is the duty of the Profession not to laugh at or pooh-pooh these doubts and fears, but to meet them by setting forth, in the clearest and most decided way possible, the merits and the possible dangers of the operation in question. The public are, therefore, much indebted to the distinguished member of the Ladies' Sanitary Association who, through that body, offered a prize of £100 for the best essay on vaccination, its value and alleged dangers. For this prize fifty-three essays, we believe, were sent in, and were referred for adjudication to a committee of three well-known and most competent members of the Profession, who unanimously decreed the first honours and the reward to Dr. Ballard. No one who reads his essay—and we most earnestly commend it to the study of every one of our brethren—will doubt the justice of the decision, for it is impossible to conceive of a more thorough, exhaustive, and impartial handling of the whole subject. And in saying this, we do not for a moment doubt that many others of the essays were very excellent, and well worthy of a prize. Of this, indeed, we have

conclusive proof in the essay of Mr. Massey Harding, which the judges placed fourth in merit, but which, we are informed in a short preface to the essay, "stood first in the opinion of the donor of the prize, as an impartial view" of the question. The Ladies' Sanitary Association has done well to publish it, for it is excellent — clear, short, and therefore almost of necessity rather dogmatic, but well calculated for popular use; while the very fulness and completeness which increase the value of Dr. Ballard's essay for Professional readers will, perhaps, rather deter the public. The donor of the prize has evidently had a preconceived and very fixed opinion on the subject of the essays, as she informs us that she "goes further perhaps than Mr. Harding or the Association in regarding the whole question of vaccination as an open one;" and Dr. Ballard has felt obliged to prefix to his work the notice "that though the judges have fairly and impartially decided in favour of this essay, neither the giver of the prize nor the Ladies' Sanitary Association are to be considered as accepting the principles advocated, or the conclusions arrived at by the author."

Though the two essays differ so greatly in size and fulness of handling, the ground-plan and manner of treating the subject are of necessity the same in both. First, we have an "introduction" giving some of the history of vaccination, and discussing the nature of small-pox and vaccinia, and the mutual relation of small-pox, cow-pox, and horse-pox; and here our two authors are somewhat at variance — Mr. Massey Harding considering that "the identity theory" is amply proved, while Dr. Ballard holds "that small-pox, cow-pox, and horse-pox are different diseases, each being natural to man, the bovine species, and the equine species respectively." But practically this difference of opinion does not matter, as "in either case it is cow-pox which is produced; but protection is equally afforded, whether the virus be taken from the cow or from the horse, both against cow-pox and against horse-pox" (Ballard); the virus of each disease, when inserted into the human system, finding there the material for maintaining its vitality and permitting of its generation, and exhausting that material.

The actual value of vaccination as a preventive of small-pox is next considered, together with the question whether the protective power of vaccination remains undiminished; and here again we meet with slight differences in the conclusions of the authors, but none of any real practical importance. Mr. Harding considers that "sufficient evidence has been brought to support the proposition that vaccination confers as much immunity from subsequent attacks of small-pox as small-pox itself," while Dr. Ballard thinks that, "on the whole, the chances of avoiding a second attack are in favour of those who have undergone small-pox, either by inoculation or naturally, rather than of those who have undergone the vaccine disease," but statistics show that secondary small-pox is more severe and fatal than post-vaccinal small-pox. As to the desirableness of re-vaccination, Mr. Harding holds that where "there is evidence of good, successful early vaccination —good cicatrices in sufficient number—it is unnecessary," even during seasons of epidemic small-pox, and he points out that it is sometimes attended with danger. Dr. Ballard has discussed this point with remarkable fulness and care, and he infers "that for the majority of persons vaccinated in infancy, and not unusually exposed to the contagion of small-pox, vaccination serves as a life-long protection against attacks of the disease," but that, "considering the progressive loss of protection imparted by infant vaccination in a proportion of vaccinated persons, and the impossibility of distinguishing between those in whom it has and those in whom it has not occurred, and also considering that a large number of persons are more or less endangered by the return of capability for developing the small-pox virus, and considering further the special liability to small-pox during the years immediately following the establishment of puberty, *re*-vaccination is to be strongly recommended for *all* persons at the age of about sixteen years. Such persons so vaccinated may be regarded as permanently protected, and there is no occasion for any further repetition of the process."

Both authors give ample proofs that vaccination is worthy of public confidence as a protection against attacks of small-pox, and that it is, when properly carried out, as complete a protection now as it was at the earlier part of the present century; of its immense value in lessening the frequency of the occurrence of small-pox, and its fatality when it does occur; and of the groundlessness of the belief that it has had the effect of promoting the occurrence of other fatal maladies. And they both consider that there is good ground for recommending from time to time a recurrence to the original source of vaccine lymph.

The Profession will, however, feel most interest in those portions of the essays that treat of the dangers of vaccination, and especially in the examination into the question of vaccino-syphilitic inoculation, and to this last subject we will confine what further remarks we have space for, only observing, by the way, that we think M. Villemin's experiments and conclusions as to the inoculability of pulmonary phthisis, quoted by Mr Massey Harding, are not at all applicable to vaccination. The vaccine lymph from a tuberculous subject cannot be classed with tubercle itself, and it has been proved by other observers that many other irritants besides tuberculous matter are capable of exciting tuberculous or cheesy deposits in the tissues.

There can be no doubt as to the occurrence of post-vaccinal syphilis—*i.e.*, that the operation of vaccination may rouse into activity congenital syphilis—but the question is as to the possibility of the inoculation of syphilis with the vaccine lymph, or of vaccino-syphilitic inoculation, as it is called. Our authors examine the various cases and series of cases which have been reported of such inoculation, applying to them the same rules and tests, which are thus expressed by Mr. Harding:—"The period of incubation of vaccine poison is comparatively short. We shall therefore be prepared to see the vaccine pock make its appearance as usual, run its regular course, and at the time of its decline, and after the fall of the crusts, the effects of the syphilitic virus should be proclaimed by the appearance of a chancre at the seat of puncture, followed after a time by symptoms of constitutional syphilis." That is, that whether the contagion be derived from a "primary" or from a "secondary" affection, the disease which appears upon the recipient is always the primary form of syphilis, always a *chancre;* that this appears at the place where the matter of contagion was applied; that the imparted disease never appears first in the form of a constitutional malady, though in due time secondary symptoms are manifested; there intervenes an incubation of about three weeks (Ballard). It is most important that these rules should be remembered; we have heard, even very lately, cases quoted as instances of vaccino-syphilitic inoculation which at once broke down when tested by them. But when all the recorded cases, English and foreign, are sifted and tested as rigorously as possible—which is done shortly by Mr. Harding, most fully and minutely by Dr. Ballard—it seems indisputable that the vaccine lymph has been the vehicle by which the healthy system has been infected with syphilis. It was supposed, after the experiments of Sigmund and Freidinger, that if the syphilitic virus and the vaccine virus were mixed together, the former destroyed the latter; but Sperino, of Turin, has proved that this is not the case, but that on inoculation with the mixed virus both diseases are imparted, vaccine vesicles, perfect and characteristic, appearing first, and, after a longer period of incubation, being succeeded by chancre. The one virus does not destroy the other, but each produces its specific result, and innumerable cases prove that a perfect vaccine vesicle may furnish both vaccine and syphilitic virus. But now a further question arises—the presence of the syphilitic virus may have been fortuitous; it may have been placed in the puncture of vaccination, as it was in the case of Manzone (Rivalta series of cases), and "as it was in every instance where syphilis was communicated from a vaccine vesicle before the constitution of the vaccinifer had been infected;" but in a constitutionally infected vaccinifer can the two viruses be *secreted* into the same pock without modifying its character, and may apparently *pure* lymph taken from such a truly syphilitic vaccinifer contain the two viruses mixed, and produce, on inoculation, vaccinia and syphilis? *Pure* lymph may be said to be lymph free from any admixture of blood, drawn in such moderate quantity as to be free from serosity, and so early that it is not mixed with the products of common inflammation.

Professor Palpizzari has proved that syphilitic blood will convey the disease by inoculation upon a healthy person; and though in his case a large quantity of blood was applied to a considerable surface, still quality, not quantity, must be held to be the efficient requirement in the operation of a virus. In a large number of the recorded cases of vaccino-syphilitic inoculation it is certain that the lymph used was mixed with blood, while it is not certain that it was in any case absolutely free from it; and in M. Sebastian's instance (Ballard, p. 348) it is clear that only the puncture made with blood-mixed

lymph produced a chancre. As to the dangers of admixture of serum and of the products of inflammation, we are so far without any evidence. But we may accept at present Dr. Ballard's conclusion on these points:—"There is reason to believe that the admixture of blood from the vessels of the syphilitic vaccinifer is a circumstance which increases very materially the chances of imparting syphilis to a child vaccinated with its lymph. I cannot go so far as to say that the admixture of such blood is the *only* condition under which infection can be imparted. I do not think that this is yet proved."

We may add that since these essays were written other cases of vaccino-syphilitic inoculation have been reported to the Académie de Médecine by M. Depaul, one series of which is very striking. M. X., an adult, "nephew of a well-known specialist Physician," some soldiers, and nine children were vaccinated from apparently perfect vesicles on a pale and rather miserable-looking infant, whose history, afterwards traced, left no doubt that it had constitutional syphilis. All the vaccinated were infected. M. X. "had not noticed whether the pustules of the vaccinifer bled or not, but the mother and the employé of the Académie who performed the operation declared that care was taken not to draw blood."(a)

It cannot be denied, then, that vaccino-syphilitic inoculation is not a possibility only—it is a fact, but, at the same time, it is a *very rare* fact; according to Dr. Ballard, "we may almost count upon our fingers the undoubted syphilitic vaccinifers who have, throughout all Europe, appeared at all probably to have communicated syphilis with their vaccine. Not one—not one has been *proved* to have existed in England." And the risk of such an occurrence would be reduced to a vanishing point by the observance of the perfectly practicable precautions suggested by Dr. Ballard and Mr. Harding. This may be said also of all the other alleged dangers of vaccination. Nearly all the doubts, fears, and detraction of which vaccination is the object owe their birth to its having been hastily, carelessly, thoughtlessly, or imperfectly performed, while it ought to be "undertaken deliberately, and performed seriously, carefully, neatly, and cleanly." As Dr. Ballard well insists, "Medical men and parents alike should drive from their minds the idea so prevalent, that vaccination is but a trivial operation at the most, which may be performed anyhow, at any time, with dry lymph or preserved lymph equally well as from arm to arm, from vesicles at any stage so long as fluid can be got from them, and from any person and any child that has a vesicle on his arm to furnish it. They should keep in mind that in the act of vaccination they are not merely imparting a protection, not merely performing a sort of magic rite, but that they are engaged, in very truth, *in implanting the seeds of a disease.* They should keep in mind the *object* of the act—namely, that the vaccinated individual shall undergo this disease fully, completely, and with the utmost perfection attainable."

(*To be continued.*)

FOREIGN CORRESPONDENCE.

FRANCE.

Election of M. Claude Bernard to the French Academy—New Methods of Administering Phosphorus.

PARIS, May 12.

THE French Academy has elected the well-known physiologist, M. Cl. Bernard, to fill the vacancy occasioned by the death of Flourens. The honour thus bestowed on M. Cl. Bernard falls upon the Profession at large, of which he is the acknowledged chief.

The literary competitor of M. Cl. Bernard was M. C. Roussel, the historian, who obtained only seven votes against twenty-one given to his illustrious opponent. It may perhaps appear strange that a purely scientific man should be called upon to fill a seat in the great tribunal of French literature; but one of the principal duties of the Academy is to prepare the official dictionary of the French language, and the presence of at least one *savant* in the celebrated assembly may often supply most valuable information for this purpose—if only to prevent the recurrence of such definitions as that given of the lobster, "a little red fish, which walks backwards" (*petit poisson rouge, qui marche à reculons*).

The death of Professor Longet has left another seat vacant,

(a) Vaccine et Syphilis. Mémoire lu à l'Académie de Médecine, 1867, Oct. 5 and 12, pp. 1161–1195.

both at the Academy of Medicine and at the Faculty. The competitors for this latter place are Drs. Trélat, Dolbeau, Richard, Demarquay, and Voillemier. It is generally supposed that Dr. Trélat will carry the day.

The medical properties of phosphorus have been attracting considerable notice of late in this country. Dr. Beaumetz has been employing a solution of phosphorus in chloroform, which he administers in the shape of capsules; and when the stomach is able to support this medicine, the effects obtained in paraplegia and locomotor ataxy seem to be exceptionally favourable. But in most cases the patient is obliged to discontinue the treatment, on account of the intense dyspepsia which is generally the consequence within a few weeks.

Dr. Guéneau de Mussy (the cousin of a well-known London Practitioner) proposes to substitute for the solution of phosphorus in chloroform a new pharmaceutical preparation, the *phosphuret of zinc*, which, in his hands, has operated favourably in a large number of cases. This substance appears to agree better with the stomach than any other preparation of phosphorus hitherto employed.

M. Vigier, a French chemist, states that the best method for preparing this substance is to project the vapour of phosphorus upon boiling zinc, in an atmosphere of perfectly dry hydrogen. The body thus produced may be obtained under the crystalline form; its formula is $PhZn_3$. When brought in contact with lactic acid, it is promptly decomposed, and gives rise to lactate of zinc and phosphuretted hydrogen. This reaction partially takes place in the stomach, and when a large dose of the substance is prescribed, the patient exhales a strong odour of garlic; but when the quantity taken within the twenty-four hours does not exceed one-fifth part of a grain, no inconvenience whatever is experienced by the patient.

One grain of phosphuret of zinc is the minimum dose which kills a rabbit weighing six pounds; consequuently in the human subject a dose of one-fifth of a grain may be prescribed without the slightest danger. It is generally given in the shape of pills. According to M. Vigier, its action is only half as energetic as that of phosphorus dissolved in oil.

A considerable degree of influenza prevails in Paris at the present moment, and not unfrequently terminates in inflammation of the lungs. In most cases, however, the patients speedily recover. In all other respects the public health is excellent.

GENERAL CORRESPONDENCE.

DR. MACLOUGHLIN ON SYPHILIS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Four years ago, when it was officially announced that the country was annually deprived for eleven days of the services of the whole army and navy in consequence of the so-called enthetic diseases, I addressed a pamphlet to the Secretary of State for War demonstrating that no Medical Practitioner in this country or France could, or can, point out one symptom on the reproductive organs, or on any other part of the body, pathognomonic of an enthetic virus. I took the liberty to suggest the appointment of a Medical Committee to inquire and to report if there is an enthetic virus. The War Office and the Admiralty accepted my suggestion. They appointed a Medical Committee to inquire if there is an enthetic virus. That Committee have made their report, and here is the result. They have stated that there is an enthetic virus; but on their own showings they have proved that no such enthetic virus exists! Consequently I owe it to myself to prove that I have not misled the War Office and the Admiralty, and I owe it to Medical science to prove that when correctly interrogated she vindicates her claim to the title of a positive science. And here are my proofs:—

The above Committee tell us, at page v., paragraph 1 of their report "that the evidence is conclusive of the existence of an enthetic virus." However, they inform us, at page viii., paragraph 4 of their report, that "the evidence is conclusive as to the impossibility to pronounce, with certainty, upon the character of a sore on its first appearance—*i.e.*, as to whether or not it will be followed by constitutional symptoms—or, in other words, whether it be or not an enthetic sore." Thus, they appeal to the constitutional symptoms to prove the existence of an enthetic virus. All diseases induced by a specific virus have a train of symptoms that cannot be induced by any other than

its specific virus – thus, small pox, rabies, etc., etc. Therefore, if there is an enthetic virus, it must have symptoms that cannot be induced by any other than its specific virus.

At page ix., paragraph 5, and at page x., paragraph 6, of their report, they have enumerated a long list of diseases which they tell us are proofs of the effect of an enthetic virus on the constitution. But all the diseases which they have enumerated as proofs of the effect of an enthetic virus on the constitution are induced by other causes than an enthetic virus. Consequently, on their own showing, they have not one symptom on the reproductive organs, or on any other part of the body, pathognomonic of an enthetic virus. Consequently, on their own showing, there is no such thing as an enthetic disease. Consequently I did not mislead the War Office and the Admiralty when I stated that no Medical Practitioner in this country or in France could, or can, point out one symptom on the reproductive organs, or on any other part of the body, pathognomonic of an enthetic virus. And, consequently, I have proved that, when correctly interrogated, Medical science vindicates her claim to the title of a positive science.

I am, &c.

David Macloughlin, M.D.,
Member of the Legion of Honour.

36, Bruton-street, Berkeley-square, W., April 25.

STAMPING OUT ZYMOTIC DISEASES.

[To the Editor of the Medical Times and Gazette.]

Sir,—The Profession no less than the public are infinitely indebted to Sir James Simpson for his admirable paper on the stamping-out of small-pox and other zymotic diseases. It may be doubted, as Dr. Alexander Wood has said (*Edin. Monthly Journal*, Feb. 1860, p. 718), whether small-pox can be ever effectually exterminated, but there can be no doubt that a properly directed system of isolation, coupled with other repressive measures, may unquestionably so limit the evil influence of any possible accidental cases as practically to exterminate this disease, and the measures to be adopted to this end were already suggested in a letter published in the *Lancet* of March, 1860, in regard to the proposed Vaccination Bill for Scotland, with the view of being adopted in that measure. But, Sir, it is not only in regard to small-pox, but also to all other diseases of the zymotic class, that this system of isolation and repression is most imperatively called for, and this is the direction which all future sanitary legislation must take—a direction which has been too much lost sight of in carrying out the no less necessary, but far less effectual, measures to which the term sanitary is, in these days, only too apt to be exclusively applied. And these remarks also unquestionably apply, if not to many other diseases outside of the zymotic class, at all events to one—tuberculosis—which, whether the recent theories of M. Villemin be true or not, is indubitably capable of being very much restricted in its spread by a system of wise sanitary legislation, for the nature and tendency of which allow me to refer to a review of Penoud on tuberculosis in the *British and Foreign Medico-Chirurgical Review* for April, 1867. And surely any means of limiting the mortality of a disease which is of itself the cause of one-fifth of the mortality from all causes, is well worthy of careful consideration, and, if possible, of practical utilisation. Sanitary science is of too recent and of too restricted a growth for the public to be aware of all the possible benefits that may yet be derived from its greater development —nay, the Profession themselves are as yet in almost total ignorance of the great power it is destined to exercise when no longer restricted to the mere mechanical superintending of drainage schemes and calculations of air space. And yet the Profession are deeply interested in this matter, for it is well known that its younger members are so decimated by zymotic diseases that insurance offices are now wisely refusing the lives of such of them as are likely to be much exposed to such diseases, unless, like dogs, they are warranted through the distemper. But these risks are entirely extra-Professional, and are cast upon us because society has neglected its duty, and I, for one, do not think it is right in us, year after year, to lead the forlorn hope in this terrible battle which we daily wage, without calling aloud to society that it is wholly its own fault that so much talent is yearly lost, that so much pauperism is yearly produced. Small-pox as it now exists, thanks to Jenner, entails not a tithe of the mortality, distress, and pauperism which it formerly did, and not a tithe of what is entailed by other and equally preventible zymotic diseases, only seven of which—and they number in all thirty-two, all equally preventible, or at least limitable—produce nearly one-fifth of our whole annual mortality. It is not therefore against small-pox alone that our crusade should be directed, as Sir James Simpson has wisely put it; all our zymotic diseases are equally obnoxious; all are equally limitable by judicious measures of repression, and the promulgation of the true principles of hygiene will not only strikingly check their devastations, but also those of many other diseases, not only putting a check upon much suffering and mortality, but also limiting the enormous expenditure annually caused by these diseases. And a wise legislation in this direction will not only benefit society in its pocket and add to the wealth and productiveness of our country, but will unquestionably elevate the average mean of life, and thus give every one a prospect of longer life than now. In the Faroe islands, situate between Iceland and Shetland, there is, from geographical position and commercial monopoly, an almost complete isolation from the rest of the world, and the consequence is that they enjoy an almost complete immunity from contagious disorders, the result being that the mean duration of life in these islands is remarkably high, the greatest mortality occurring between the ages of 80 and 90 (*Archiv f. physiol. Heilk.*, t. ii.). It is hardly possible, amid the many contingencies of civilisation, that an extinction of zymotic disorders, even if it were possible, would raise our average mean of life so high, but that even any considerable limitation of their mortality would materially affect it is unquestionable. Society has the matter in its own hands, but it is no less our duty, for their sakes as well as for their own, diligently to impress the matter upon them. Again, most people are satisfied that the present tendency of sanitary legislation is right, and only requires further development to produce even more remarkable effects than hitherto. I do not mean to say this view is altogether wrong, but that it is not altogether right is evident from the fact that bad drainage is only positively injurious when the developed gases are forced into houses by the drains being hermetically closed at one end, and only then exceptionally, as witness the many hundreds of country houses with closed cesspools in which enteric fever, or diphtheria, etc., only arise at rare intervals, while in respect of drinking water, in regard to which we are now so morbidly sensitive, Livingstone and his companions habitually drank of water highly charged with nitrates and nitrites without any well-marked injurious results, and in the beginning of this century, when London was free from cholera and many other zymotic diseases, and not more affected with others than it now is, the whole available drinking water was so charged with nitrates that flesh boiled in it became red. (Heberden, *Transactions of the Royal College of Physicians*, vol. i.). I suppose it will ever be impossible to prevent the occasional development, under more or less exceptional circumstances, of our zymotic diseases, but I, Sir, for one, see no reason to doubt the possibility of limiting their spread by judicious measures of isolation and disinfection, and my study and observation have forced upon me the conclusion that it is to these and other similar measures that we are to look for a restriction of most of our so-called epidemic diseases, and for a limitation of their mortality. Our mission is not, like vultures, to prey upon the dying and the dead: it is more godlike—we are the high-priests of Nature, to expound her laws for the benefit of our fellow-men—and Sir James Simpson's pamphlet has opened up one view of this subject which has been too much lost sight of hitherto. Bad drainage and foul water are the agencies by which zymotic diseases perhaps chiefly spread, but they only exceptionally give rise to them, and, if these exceptional cases be efficiently limited by properly directed measures, the drainage and water might be left to take care of themselves, and much expense undertaken under the name of sanitary science might be spared. I am far from saying that these expenses are useless, but the other measures to which Sir James and others have directed attention are unquestionably far more useful. Let us hope that his great name may set the ball rolling in the right direction, and that his endeavours may never be relaxed till it has safely reached the goal—the excitement of public opinion, which may then be left to do the rest.

I am, &c. X. B.

"APOPLEXY AND DRUNKENNESS."

Letter from Mr. G. B. Phillips.

[To the Editor of the Medical Times and Gazette.]

Sir,—Permit me to endeavour to correct an impression evi-

dently existing in the mind of the writer of an article on the above subject in your last week's impression, not only in connexion with case No. 2 there referred to, but also as to the management of the insensible, whether from "drink" or otherwise, in our police stations.

If I mistake not, case 2 alludes to one seen by me on admission to the "police station" and twice subsequently. If so, I have good reason for stating that the hæmorrhage took place in the case some hours after admission, and not long before it was sent to the Hospital; and this view, formed as it was at the time, has been strengthened by all I have heard since. At any rate, when the patient was brought to the station, I received a history and undeniable demonstration of deep potations, and there was not a symptom unexplainable by, or inconsistent with, "a state of intoxication."

No one is admitted insensible or seemingly ill from any cause at a police station, but is seen at once by a Surgeon; if not a "divisional Surgeon," it is the duty of "the inspector on duty" to seek his advice if the insensibility or illness is protracted. *Ergo*, "our laments on the mistakes the police make" in reality refer to the police Surgeon, and he, and he only, is responsible for aught that occurs amiss. The writer of your article, therefore, cannot be aware of this, or he surely would not have written—"Now it may safely be said that, had the patient been found in the streets by the police, he would have been locked up for drunkenness, though he died from severe injury to the brain." For, a little further on, he writes—"We willingly admit that those who have had large experience—*e.g.*, Surgeons to the police—become able to arrive at a correct conclusion in most cases."

Relating to the non-Medical coroner, the article says, "to the best of our knowledge," etc. I feel bound to state that a non-Medical coroner has on two occasions refused to receive a vote of censure without an explanation of the case being asked from the "Doctor" involved; in both cases the censure was more than arrested, once owing to the coroner's explanation, once by my own. Not to lengthen this letter, let me ask that if I am taken to a station insensible and the diagnosis is "apoplexy," let me lie there, at any rate for a time, even in "a cell" if necessary, rather than expose me to the risk, and that not a remote one, of a removal to an Hospital or my home. Upon this risk, and other matters connected with this subject, I hope shortly again to address you, which statistics and observations upon many hundreds of cases may justify my doing, my only object now being to correct erroneous and unintentionally unjust remarks upon a public service.

I am, &c. G. B. Phillips.

2, Spital-square, May 13.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 21, 1868.

J. Simon, Esq., F.R.S., President, in the Chair.

(Continued from page 513.)

Mr. Holthouse next showed an

ACUTELY NECROSED TIBIA

removed from the body of a schoolboy who fell on a Wednesday, was very ill on Friday, and pulseless on Sunday, dying the same night. Originally there was merely a simple bruise of the part. The joints were healthy, the thoracic viscera alone being affected. There was no pus below the periosteum.

Mr. Eastes said the case greatly resembled one in Guy's Hospital last spring, the conditions of parts being exactly the same.

Mr. Birkett exhibited a growth from the lower part of the sigmoid flexure of the colon, with cancer of the liver. The woman, aged 47, had suffered from constipation seventeen days; for seven days with symptoms of dyspepsia only, after these with vomiting also. When seen she was moribund; the colon appeared distended on the back, but not in front. The obstruction was reached by a long tube, and tubera in the liver were felt through the abdominal parietes. The colon was much distended with fluid fæces.

Dr. Tilbury Fox exhibited a luxuriant fungus from a case of tænia circinata, consisting of trichophyton and other so-called species.

Dr. Sanderson showed a specimen of

VALVULAR DISEASE.

The posterior aortic valve and the one over the mitral were attached to the aorta by little nodules. There was complete incompetence, and water rolled over them, there being no sinus behind them. The heart's impulse was doubled. The patient died by a sort of secondary regurgitation.

Dr. Bristowe exhibited an

ANEURISM FROM THE BASE OF THE BRAIN

at the junction of the anterior and middle cerebral arteries. There was paralysis of the right side, and the patient could not speak. There was hæmorrhage at the base of the brain, but not from the aneurism.

II. MALIGNANT DISEASE OF THE SUPRA-RENAL CAPSULES

removed from a man aged 62. The liver was also affected. There were cerebral symptoms, but no signs of Addison's disease. The urine was slightly albuminous.

III. A SPECIMEN OF ADDISON'S DISEASE

from a boy, aged 16, who had been in pretty good health up to last Christmas twelvemonth. Nausea and dark colouring of the skin came on, the bronzing being nearly uniform. There was weakness, but not much emaciation. He could walk about, and had a good appetite. Sometimes he had headache and vomiting. He was sent to Walton, and remained five days, but was sent back much worse. Nothing except great atrophy of the supra-renal capsules was discovered.

Mr. H. Arnott showed the

DISEASED SUPRA-RENAL CAPSULES

of a boy aged 13, who had been under the care of Mr. Shaw for angular curvature. There was no bronzing and no tubercle; only the right supra-renal was rather larger than it should be, and nodulated on the surface.

II. EPITHELIOMA OF THE TONGUE.

Here, also, there was no bronzing of the skin, although the right supra-renal contained deposits.

Dr. Murchison also exhibited a specimen of

SUPRA-RENAL CANCER WITH NO BRONZING OF SKIN.

There was cancer of the vertebræ, liver, and lung. The capsules might be entirely destroyed by cancer, yet no bronzing follow, which must therefore depend upon a specific form of disease.

II. GALLSTONES PASSED THROUGH THE PARIETES OF THE ABDOMEN.

A supposed abscess of the liver having opened, much pus and several of these stones continued to pass away.

III. GALLSTONES FROM A DILATED CYSTIC DUCT,

from a patient who died of peritonitis produced by rupture of the gall-bladder. There was fatty degeneration of nearly every organ of the body.

Dr. Moxon exhibited a specimen from a case of

ACUTE INFLAMMATION OF THE BRONCHIAL GLANDS, WITH DOUBLE HYDROTHORAX, ETC.

The specimen consisted of the lungs and their roots. The patient, a man aged 40, was admitted into Guy's Hospital suffering from extreme and distressing dyspnœa, and pain about the heart, with feeble flickering pulse. He lived only a few hours after his admission, and his condition during that time was such that his case was viewed as one of angina pectoris in an aggravated form. He was a carman, described as temperate, and the history given said that he had been liable to cough since Christmas, but that he had not been so ill as to leave his work until the day before his coming into Guy's, on which day he was taken suddenly worse when at his work, being seized with pain in the left side and shortness of breath, such that he was quite disabled. When inspected twenty-two hours after death, the body was without any outward sign of dropsy. The man was rather tall, of bony frame, with strong aquiline features and greyish dark hair. There was some straw-coloured liquid in all the cavities of the trunk, but the distribution of this liquid was such as at once to excite inquiry; for while there was but a pint in the abdomen, there were two pints and a half in the left and one pint in the right pleura, also four ounces in the pericardium. In each case the surface of the serous membrane was free from any sign of inflammatory action. Thus, though the condition of dropsy was general in the cavities of the body, yet the ordinary rules of proportion in the relative amounts of liquid in the several cavities in general dropsy were notably set aside. Upon

examining the heart and kidneys as the usual causes of dropsy, there was no fault to be found in either; the anatomy of the heart was perfect, and the kidneys were healthy, the few ounces of urine which the bladder contained being further free from albumen. A search for the cause of the hydrothorax showed the bronchial glands greatly enlarged, being of sizes from that of large walnuts down to cherries. The substance of the glands was deep red, and blood was effused in the tissue of them, while around them the subpleural tissue of the roots of the lung was charged with white plastic lymph, the pleura over this lymph not having any fibrinous coating. The glands within the lung were affected equally with those without, and about one of these, as if from it, there was pneumonic hepatisation for a small space. Microscopic examination showed the gland tissue with its elements proliferating, but no appearance of organised tumour. The only other diseased condition which was found in the body was one that was equally peculiar. In the jejunum were several ulcers of small size; or, rather, they were suppurating patches, of the size of peas and horsebeans, generally in the valvulæ conniventes. The microscope here also showed the conditions of early inflammatory change. I have called this a case of acute inflammation of the bronchial glands, but only because these are the parts that he could show the Society. The real nature of the case he could only conjecture. Analogy with cases of cancer of the bronchial glands where hydrothorax is commonly present would seem to throw light on the case, but in these cases of cancer hydrothorax is caused by a growth of the cancer into the bronchial veins, and no such condition existed in the case before the Society. Indeed, any view which was limited to the bronchial glands would not explain the state of the pericardium, jejunum, etc. It may be that the effusions in the cavities were of an inflammatory origin, and the condition would then correspond to a term used by Dr. Gull—namely, "catarrh of the serous membranes." If so, the excessive inflammation of the glands, and the curious fact of the presence of lymph close under a serous membrane without that most inflammable membrane lighting up into inflammation, remain very curious, and require the supposition of some specific quality of the inflammation itself setting limits to its tendency to spread.

Dr. Moxon next exhibited a specimen of

ABSCESS IN THE LARYNX.

This specimen of larynx was taken from a man who died in Guy's Hospital, having been admitted for chronic bronchitis. His condition was serious when he entered; there was some œdema of the feet, and the breathing was difficult—the usual noises being heard on auscultation, with a preponderance of râles. However, his death was considered sudden; he had not shown signs of sinking, but he had for three days made complaint of pain in the throat, increased during swallowing. One night dyspnœa became quickly extreme, and he died. His death in this rather unexpected way created suspicions that a deep-seated aneurism might exist, but inspection disproved this surmise. The bronchial membrane in the lower tubes was in a granular state, and the right heart and pulmonary artery were hypertrophied and dilated. The right ventricle wall was $\frac{5}{16}$ inch thick and very hard, the cavity of twice the usual capacity. The apices of the lungs were scarred with deep furrows, at the bottom of which were the blackened relics of former phthisis. There was some compensatory emphysema in the neighbourhood of this. The kidneys and other organs were healthy, except that an ulcer was found in the stomach in its lesser curvature. This ulcer had penetrated the muscular coat, but the erosion was kept from the peritoneal surface by an adventitious layer of $\frac{1}{8}$ inch thickness. No sign of the ulcer was visible externally, and by transmitted light it was found that the coat was actually thicker at the ulcerated spot. The larynx showed a condition of extreme œdema, and on closer examination there was found a collection of pus of the size of a horsebean; it had not a well-defined abscess wall; it was situated at the hinder end of the left arytenoepiglottidean fold. The point at the hinder end of the vocal cords was slightly eroded, and there was a flake of thick epithelium along the cords themselves. This case was brought before the notice of the Society because Dr. Moxon believed that acute suppuration of the larynx in adults is rare, unless it be part of the process of syphilitic disease. There were no signs of syphilis in this man. As for the other causes of acute laryngitis, he could not learn that the man had been using strong inhalations, and he had no kidney disease. His pulmonary phthisis was long bygone, but there were some suspicious spots in the larynx, as of tubercular ulceration, and this may have had to do with the abscess; but, if so, it is a very rare occurrence. Dr. Wilks pointed out to the author a case which occurred to him in the year 1863, when a man died off very quickly with laryngeal symptoms, and he found most severe inflammation of the larynx, with formation of pus amongst its muscles.

Mr. Carr Jackson showed the sequel of a case of encephaloma ending in amputation of the leg. The woman subsequently suffered from neuralgic pains and hemiplegia. Diseased masses were found in the brain. Referred to Committee.

Mr. Spencer Watson exhibited a cystic tumour of the breast having a cancerous core removed from an unmarried lady aged 48. Referred to Committee.

Mr. Laurence showed a living specimen having pediculi in the eyelashes.

THE MEDICAL OFFICERS OF MILE-END.

(*From a Correspondent.*)

The Mile-end Old Town Board of Guardians, at the instigation of Dr. Markham, have at length determined, by a not very large majority, to do something like justice to their Medical officers. The committee appointed to consider the subject recommended that the two Medical officers, Messrs. Stephenson and Lydall, should have an increase of £50 per annum. The proposal met with great opposition from certain of the members, on the ground that Dr. Lydall had only lately been elected, and a third Medical officer had been appointed within the last month or two in order to lighten the duties of the other two. Another member thought that Dr. Lydall ought to rise from his present salary of £150 up to £200 gradually, in the same manner as Mr. Stephenson had risen from £130 a year to his present £200. Men of enlightened views, on the other hand, asked how it was possible that a gentleman could live on £150 a year, for this parish strictly prohibited private practice, whereas in other parishes the Medical officers had higher salaries and were not restricted. The clerk reminded them that the salaries came out of the Metropolitan Common Fund, towards which they contributed equally with the parishes which paid higher salaries to their Medical officers. After an amendment proposing an increase of only £25 per annum had been lost by eight votes to four, the recommendation of the committee was at length carried.

BRITISH MEDICAL ASSOCIATION.

REPORT OF MEETING OF COMMITTEE OF COUNCIL HELD AT BIRMINGHAM, APRIL 23, 1868.

ARRANGEMENTS FOR THE ANNUAL MEETING AT OXFORD, 1868.

The following resolutions were passed at the last meeting:—

1. That the following gentlemen be appointed officers of Sections:—

Medicine.—*President*, Sir W. Jenner, Bart., M.D., F.R.S., London. *Secretaries*, E. L. Fox, M.D.Oxon., Clifton, Bristol; William Roberts, M.D., Manchester.

Physiology.—*President*, Professor Rolleston, M.D., F.R.S., Oxford. *Secretaries*, W. L. Church, M.D.Oxon., London; Professor Beale, M.B., F.R.S., London.

Surgery.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B.Oxon., Leeds; W. Stokes, jun., M.D., Dublin.

Midwifery.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, J. D. Wilson, M.D., Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

State Medicine.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D.Oxon, Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

2. That a Sub-Committee be appointed to consider and to report as to the proper subdivision and organisation of the various sections, and the best mode of appointing their officers; and that the Sub-Committee be requested to observe and report upon the working of the different sectional meetings at Oxford.

The Sub-Committee to consist of the following gentlemen, with power to add to their numbers:—The President, the President-elect, the President of the Council, the Treasurer, the General Secretary, the Officers of Sections, Mr. Cordy Burrows, Dr. Paget, Dr. Edward Waters, and Dr. Wilkinson.

3. That the report now read from the Committee for considering the Representation of the Profession in the General Council of Medical Education be adopted; and that the members of the Sub-Committee, with the President of the Council, be appointed a deputation to wait upon the Medical Council.

REPORT OF THE SUB-COMMITTEE APPOINTED TO CONSIDER THE REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL.

The Sub-Committee, in accordance with their original recommendation, supported by the almost unanimous vote of the Association, agreed to at the anniversary held in Dublin in 1867, are of opinion that the Profession will not be adequately represented in the General Medical Council, as at present constituted, by less than eight representatives, to be elected by the registered Members of the Profession resident in the United Kingdom of Great Britain and Ireland, with the exception of those on active service in the army and navy.

The Sub-Committee are of opinion that the addition of eight members to the General Medical Council, as representatives of the Profession generally, far from embarrassing the proceedings or militating against the influence of the Council, will, on the contrary, have the opposite effect.

The Sub-Committee entertain no doubt that the Profession, on which the payment of the representatives of the various Medical and Surgical corporations and of the nominees of the Government at present rests, will willingly pay the additional cost of their own representatives. At the same time, the Committee think the propriety of paying their own representatives by the various Universities, Colleges, and Corporations, is an object for the consideration of the Council.

The Sub-Committee are of opinion that, if the Council, in consequence of the addition of the members to be elected by the Profession, should deem it advisable to recommend a diminution of the number of the representatives of the corporations, a corresponding reduction may then be made in the representatives of the Profession.

EDWARD WATERS, Chairman.

NEW INVENTIONS.

CHLOROFORM INHALER OF DR. JOHN MURRAY.

THE framework is of strong and thick wire and made to fold up. The cover, which is removable, is made of flannel or fine and close cotton cloth, several plaits thick in the centre to absorb from half a drachm to one drachm of chloroform, and at the same time admit of as equable and proper an evaporation as possible. There is an aperture in the cover for the admission of air, which, however, may, if necessary, be also allowed to

enter at the sides. The inhaler is shaped so as to suit any one by applying the lower end above or below the chin, as may be found desirable. A flat and graduated bottle, capable of containing an ounce and a half of chloroform, and made to fit the vest pocket, accompanies the inhaler. The whole fits into a small case (as seen in the second figure) which can be carried without inconvenience in the breast-pocket. This inhaler is not believed by Dr. Murray to admit of the almost equable and known evaporation of Mr. Clover's admirable apparatus, but he brings it before the Profession to supply the want of a simple, clean, and cheap apparatus, portable and convenient. He has employed it successfully in a large number of operations at the Middlesex Hospital and elsewhere, giving to the patient first half a drachm cautiously, and following up by quantities varying from 40 to 60 minims. It is supplied at a moderate price by Meyer and Meltzer, of Great Portland-street.

NEW BOOKS, WITH SHORT CRITIQUES.

A School Manual of Health. By Edwin Lankester, M.D., F.R.S., Medical Officer of Health St. James's, Westminster, etc., etc. London: Groombridge and Sons. Pp. 150.

"A compact and scholarly elementary physiology, as supplying the basis of sanitary science, and of the most important rules arising therefrom likely to be of use in house."

Pacific Medical and Surgical Journal. March, 1868. Editors, H. Gibbons, M.D., and H. Gladwin, M.D. San Francisco: Bancroft and Co.

"Contains an extraordinary account of a visit to the Texas State Lunatic Asylum, which would appear to be in a most wretched condition, unclean, badly furnished, without any means of recreation for the inmates, and with a dark cell for punishment, unpadded and unventilated. There were also a number of horrid contrivances termed case-beds, being boxes with barred lids, which so close on the unfortunate inmate as to prevent his turning or even raising his head.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first Professional examinations during the April and May sittings of the Examiners:—

Anderson, William O., county Derry.
Baker, Oswald, Middlesex.
Brown, William, Dumfries.
Campbell, Archibald, Perthshire.
Cox, D. C., Annan.
Evans, William Watkin, Wales.
Fardelough, Thos. B., St. Asaph.
Garland, T. H., Norfolk.
Gibson, James, Forfar.
Henderson, Robert R., Tipperary.
Hutchison, John, Beauly.
Jones, James A., Aberayron.
Jones, Lewis, North Wales.
Langley, Aaron, Surrey.
Lennan, John Lukin Irwin, Dromore.
M'Gregor, John, Perthshire.
Moon, David Steele, Perthshire.
Otterhead, Thomas James, Denbighshire.
Rae, Thomas, Caithness.
Schuster, Edwin, Ulverston.
Somerville, Jocelyn, Moffat.
Sutherland, John A., Wick.
Tracy, Dalton, Hull.
Walker, John, Preston.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh:—

Anderson, John, Forfarshire.
Brown, David Blair, Glasgow.
Cowan, John Hutchison, Sanquhar.
Buchanan, Joseph Stallworthy.
Gowans, William, Prestonkirk.
Greene, Richard, Boston, U.S.
Hackett, John Byrne, county Cork.
Hardyside, Arthur, East Lothian.
Hunter, John Gilland, Madras.
Hutchison, George, Glasgow.
Hutchinson, Lewis Alsopp, Cumberland.
Jeffreys, Walter Robert Spence, Dalkeith.
Lyne, Daniel John, county Cork.
Macphail, Donald, Caithnessshire.
Morrison, William French, Aberdeen.
Norman, John William, Cumberland.
Nolan, John, Cork.
Park, David Scott, Hawick.
Thomson, Thos. Smith, Edinburgh.
Tyrrell, Samuel Mathias, India.
Ward, William John Cuthbert, Durham.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners on the 11th inst., and when eligible will be admitted to the pass examination:—

Elias, W. H., of the Dublin School.
Gardiner, T. S., of the Manchester School.
Hislop, C. S., of the Belfast School.
Jamieson, R. A., of Cork.
Roberts, William, of St. Bartholomew's Hospital.
Slater, T. J. W., of St. Bartholomew's Hospital.
Williams, William, of the Dublin School.

It is stated that five candidates out of the twelve examined failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for a period of three months.

The following gentlemen passed on the 12th inst., viz.:—

Baillie, Cornelius, of Charing-cross Hospital.
Brown, David, of the Dublin School.
Collins, William, of the Westminster Hospital.
Ekens, J. W., of Guy's Hospital.
Griffith, R. P., of the Dublin School.
Hebran, R. C., of Guy's Hospital.
Hewett, H. L., of Guy's Hospital.
Hunt, Charles, of St. Bartholomew's Hospital.
Jones, William, of Guy's Hospital.
Kennedy, A. F., of the London Hospital.
Mossop, W., of the Manchester School.
Newington, H. H. H., of University College.
Nicholson, Wright, of Guy's Hospital.
Norman, Bullard, of Guy's Hospital.
Oliver, Thomas, of the Carmarthen Hospital.
Price, Francis, of the Dublin School.
Russell, William, of Guy's Hospital.
Sturge, Richard, of Guy's Hospital.
Sutton, Henry, of University College.
Tuson, P. W., of the Dublin School.
Wild, George, of St. Bartholomew's Hospital.

Eleven candidates out of the thirty-two examined failed to acquit themselves to the satisfaction of the Court. It therefore appears that of the forty-four examined no fewer than sixteen failed to reach the Collegiate standard. An examination for the Membership will take place this day (Saturday).

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentleman passed his first Professional Examination on April 1:—

Smith, William Woodrill, of Middlesex.

The following gentlemen passed their final examinations during the April and May sittings of the Examiners, and were admitted Licentiates of the College:—

Armstrong, James, Dumfriesshire.
Arthur, John, Stranraer.
Bell, Robert, Alnwick.
Bigger, David, Glasgow.
Burman, Jas. Wilkie, Southampton.
Byass, Edgar Sury, Sussex.
Chambers, Robert, Tyrone.
Craig, William, Avondale.
Cumming, James, Edinburgh.
Dick, Robert, Dundee.
Evans, David, Wrexham, N.W.
Fulton, William West, county Down.
Hall, James, Lancashire.
Macmillan, Angus, Canterbury.
M'Lean, Allan, Melbourne.
Porteous, Robt. Burnet, Lanarkshire.
Ridolfati, Andrea Carlo Francisco, Edinburgh.
Robertson, Robert Thin Craig, Lancashire.
Shives, John, Aberdeenshire.
Taylor, Richard, Oxfordshire.
Troutbeck, James, Cumberland.
Wilson, George, Renfrewshire.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursdays, April 30, and May 7, 1868:—

Field, Albert Frederick, Canterbury.
Gill, William, Anstey's Lea, Torquay.
Harris, William, Redruth, Cornwall.
Lee, Barnard John, Wheatcroft, Crick, Derby.
Lubbock, Richard Girdlestone, Burton-crescent, W.C.
Marshall, Andrew, Preston.
McMahon, John James, Carrickmacross.
Nicholls, William Howard, Kennington.

As an Assistant, April 30:—

Ford, Robert Giles, Cannon-street-road, E.

The following gentlemen also, on the same days, passed their First Examination:—

Beardshaw, Charles Henry, Leeds School of Medicine.
Wilkinson, William H., Whiteway, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BANNING, ROBERT J., M.D.—Honorary Medical Officer to the Gateshead Dispensary.

MADDEN, THOMAS MORE, M.R.I.A., L.K. and Q.C.P.I., M.R.C.S. Eng.—Assistant-Physician to the Rotunda Lying-in Hospital, Dublin.

NEWCOMBE, FRED. W., M.R.C.S.E. and M.S. Durham.—Resident Medical Officer to the Gateshead Dispensary.

REES, LLEWELLYN, M.R.C.S. Eng.—Clinical Assistant to the Assistant-Physicians at the London Hospital, *vice* J. R. B. Dove, M.B. and B.Sc. London, resigned.

WILLSHIRE, ALFRED, M.D., M.R.C.P. Lond.—Medical Inspector to the Privy Council.

NAVAL AND MILITARY APPOINTMENTS.

CLARKE, JOHN G.—Assistant-Surgeon to the *Philomel*.

PARR, JAMES J.—Assistant Surgeon Additional to the *Impregnable* for the *Squirrel*.

PATERSON, Dr. J.—Surgeon Additional to the *Celedonia*.

PENBERTHY, Dr. J. H.—Acting Assistant Surgeon to the *Jaco*.

WILSON, DAVID.—Surgeon to the *Jaco*.

BIRTHS.

BARLOW.—On May 6, at Norfolk-house, Albion-road, Dalston, the wife of R. Barlow, M.R.C.S.E., of a daughter.

BELL.—On May 8, the wife of James V. Bell, M.D., of a daughter.

COATES.—On May 3, at H.M.'s Dockyard, Devonport, the wife of M. Coates, Assistant-Surgeon R.N., of a son.

DOWN.—On May 6, at Normansfield, Hampton Wick, the wife of J. L. H. Down, M.D. Lond. of a son.

EVANS.—On May 13, at Cheshunt, Herts, the wife of Nicholl Evans, M.D., of a son.

HARLEY.—On May 7, at 25, Harley-street, W., the wife of George Harley, M.D., F.R.S., Professor in University College, London, of a son.

HENRY.—On May 9, at the residence of her father, 38, Duncan-terrace, Islington, N., the wife of James Henry, Esq., M.D., Surgeon in the Royal Navy, of a daughter.

HIME.—On May 9, at Dresden-villa, Broom-hall-park, Sheffield, the wife of Thomas Whiteside Hime, M.B.T.C.D., of a daughter.

LYNES.—On May 7, at 9, Priory-row, Coventry, the wife of Edward Lynes, M.D., of a daughter.

STEGGALL.—On May 7, at 3, Queen-square, Bloomsbury, W.C., the wife of John Billing Steggall, Surgeon, of a son (seventh).

WILLIAMS.—On May 10, at Wickham-lodge, Aylesford, Kent, the wife of Dr. Hutchins Williams, of a son, stillborn.

MARRIAGES.

CARMAN—DAILEY.—On April 30, at the church of St. Mary and Joseph, Poplar, by the Rev. James McQuoin, assisted by the Rev. Daniel Lewis, Cornelius Edward Carman, Surgeon, of Bow-road, Middlesex, to Charlotte, youngest daughter of John Dancy, of Manchester. No cards.

RYE—LIDDELL.—On May 5, at the parish church, Leckhampton, Cheltenham, A. B. Rye, F.R.C.S., of Banbury, to Mary Catherine N. Liddell, only survivor of R. Liddell, Esq., of the Grotto, Leckhampton.

DEATHS.

BARRETT, S., M.B., of Ewell, Surrey, on May 2, aged 57.

BUNNETT, HENRY BOWERS, Esq., M.R.C.S., on May 9, at 33, Carlton-hill, St. John's Wood, after a long and protracted illness.

DAVIS, ISABELLE, elder daughter of Henry Davis, M.D., on May 8, at Putney, after a long illness.

DENTON, WALTER JAMES, fourth son of S. B. Denton, M.D., and late of the ship *Agincourt*, Queen's service, on April 29, at Hornsea, Yorkshire.

GERVIS, MARY, wife of Frederick H. Gervis, Esq., Surgeon, on May 10, at 33, Adelaide-road, Haverstock-hill.

HOLME, WILLIAM, M.R.C.S., L.S.A. London, on May 8, at Cleator-lodge, Windermere, aged 53 years.

LUCE, LOUISA MARIA, the beloved wife of J. J. Luce, M.D., on May 7, at Wincanton, Somerset, after a few hours' illness.

MCNICOLL, DAVID HUDSON, M.D., on May 10, at his residence, South Lawn, Southport, Lancashire, in his 55th year. Friends will please accept this intimation.

PAUL, Miss, the only daughter of Dr. Paul, on May 9, at 26, Burton-crescent, aged 2 years.

SKAIFE, Mr. EDWARD, stuff merchant, of Bradford, fourth son of Robert T. Skaife, Esq., Surgeon, Easingwold, Yorks, on May 6, very suddenly, at Hay, Brecon, in the 31st year of his age. Friends will kindly accept this intimation.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Stowbridge Union.—Mr. DAVID CROFT has resigned the Kingswinford Second District; population 12,762; salary £40 per annum.

APPOINTMENTS.

Alnwick Union.—Thomas Currie, M.R.C.S. Edin., L.R.C.P. Edin., to the Warkworth District.

Battle Union.—Charles Ashenden, M.R.C.S.E., L.S.A., to the Hollington District.

Ledsham Union.—Charles Hedley, M.R.C.S.E., L.S.A., to the Fifth District.

Rotherham Union.—Charles McCaskie, L.R.C.P. Edin., L.R.C.S. Edin., to the Laughton District.

St. Pancras Union.—Edward R. Woolford, M.R.C.S.E., L.S.A., M.B., M.C., to the East Budleigh, Colaton Raleigh, and Otterton Districts. Edward B. Stephens, L.F.P. and S., L.S.A., to the Tedburn St. Mary District. Philip C. Hayman, M.R.C.S.E., L.S.A., to the Woodbury District.

Wigan Union.—Richard S. Hall, M.R.C.S.E., L.S.A., to the Ince District.

Wrexham Union.—Llewellyn J. Summers, L.R.C.S. Edin., L.S.A., to the Third District.

ACADÉMIE DE MÉDECINE.—M. Chassaignac has just been elected into the section of Surgical Pathology by the suffrages of fifty-six of the seventy-six voters present.

SIR WILLIAM JENNER has entirely recovered from his indisposition, and returned to town. It has been arranged that on her Majesty's visit to Scotland she will be attended by Dr. Hoffmeister, of Cowes.

THE Presidents and Vice-Presidents of the Pharmaceutical Society of Great Britain have issued cards for a *conversazione* on May 19.

THE Right Hon. Robert Lowe, M.P., will preside at the distribution of prizes to the students of St. Mary's Hospital on Wednesday next, May 20, at 2.30 p.m. As candidate for the representation of the University of London, in which the Medical Faculty forms so important an element, and as a great authority on the subjects of general and scientific education, Mr. Lowe's address will probably present features of interest, and attract many hearers.

TESTIMONIAL TO DR. RICHARDSON, F.R.S.—A meeting is announced for Wednesday, the 20th, at Willis's Rooms, at half-past two o'clock, for the purpose of presenting a testimonial to the above-named Physician and physiologist, subscribed to by over six hundred Medical men and men of science in all parts of the world, and amounting to the value of more than a thousand guineas. This recognition is looked on in Medical circles as one of which there is no similar history. Jenner, it is true, received two grants of larger value, but they were from the State, and were given only after great contention; in the present case, although the

award is pecuniarily less, the actual value of it is even greater, as it emanates solely from men every one of whom is, so to speak, a professional judge of true scientific worth. Mr Paget, F.R.S., Surgeon to her Majesty, will preside on the occasion of the presentation.

UNIVERSITY OF LONDON.—Degrees were conferred on Wednesday last, at Burlington House, by the Chancellor, Earl Granville, in the presence of a distinguished company of ladies and gentlemen. Dr. Carpenter read out the list of those gentlemen who were entitled to degrees, and called up to the chair those to whom prizes had been awarded. Earl Granville, in addressing the company, claimed for the University of London the credit of having been the first to recognise the importance and value of degrees in science. He then dwelt at some length upon the proposal to admit ladies to their examinations, and in a very humorous speech he stated that it was their intention to open their doors to every one, of whatever sex or creed, who, having received a liberal education, was deemed worthy of competing for an entrance to their University. It is not contemplated at present to admit them to degrees, but an examination equivalent to the Matriculation Examination, specially arranged to suit the requirements of the case, will be instituted, at which women will be permitted to compete for a membership of the University.

UNIVERSITY OF EDINBURGH.—At a meeting of the Curators of the University of Edinburgh, held on Thursday, it was resolved to proceed with the election of a Principal, in room of the late Sir David Brewster, on June 18, the day on which the election of Professor of Moral Philosophy is appointed to be held.

FROM the fifty-three candidates for the honour of the Fellowship, the Council of the Royal Society has selected the following as the fifteen whom they recommend the Society to elect on June 4—viz., J. Ball, H. C. Bastian, M.D.; Lieutenant-Colonel J. Cameron, R.E.; Prof. R. B. Clifton; M. W. Crofton; J. B. Davis, M.D.; P. M. Duncan, M.D.; P. Griess; A. G. V. Harcourt; Rear-Admiral A. C. Key; Rear-Admiral E. Ommaney; J. P. Pettigrew, M.D.; E. J. Stone; Rev. H. B. Tristram; and W. S. W. Vaux.

TERLING.—From our latest reports of the health of Terling we find that no fresh cases of fever have lately occurred; in fact, the epidemic has been at an end for the last six weeks. There have been in all between 400 and 500 cases and 50 deaths in a population of barely 900 souls from this one cause alone—a mortality that in its annual rate, if continued, would exceed 200 to 1000 living. And all these preventible deaths!

HÔTEL-DIEU, MONTPELLIER.—Madame Lallemand, the widow of the late celebrated Professor of Clinical Surgery in the Montpellier Faculty, has just presented a sum of 20,000 francs on the sole condition that the name of Lallemand should be for ever inscribed on the door of one of the wards of the Surgical division of the Hôtel-Dieu, St. Eloi. In consequence, a plate bearing the words "Salle Lallemand" has been affixed to the door of the ward for wounded soldiers, formerly called "Salle St Côme."

PROFESSORS BÉHIER AND BROCA.—We understand that these two distinguished Professors of the Faculty of Medicine of Paris will shortly visit this country for the purpose of attending the meetings of the British Association for the Advancement of Science which will be held in Norwich next August. Dr. Béhier will read a paper on the "Administration of Alcohol in Acute Disease," illustrated by sphygmographic and thermometric observations. Dr. Broca will have an opportunity of defending his theory as to the localisation of speech, as the subject will be introduced for discussion by Dr. Hughlings Jackson, who will read a paper on the "Physiology of Language." The easy access to Norwich from London and from the Continent, the peculiar geological and archæological features of the district, and a variety of other circumstances are likely to combine to render the Norwich meeting one of the most brilliant and successful in the annals of the British Association.

WHAT BECOMES OF THE BODIES THROWN INTO THE GANGES?—Dr. Ewart's catalogue of the Pathological Museum at Calcutta helps to give an answer. Amongst the dismal treasures of the place are three bezoars, or balls of hair, each about fourteen inches in circumference, taken from the stomachs of alligators. The hair of which these balls are composed is described as *brown black and thick*, and of Hindoo origin.

PREVENTION OF CONTAGIOUS DISEASES AT HONGKONG.—The Governor of Hongkong, Sir Richard Graves McDonnell, C.B., has forwarded to the Association for extending the Contagious Diseases Act to the civil population very interesting official information of the effect of sanitary regulations in Hongkong. Preventive measures were set in force in that colony in 1857, but, through the imperfect working of the ordinance and the insufficiency of the staff employed in carrying out the provisions, the success in diminishing the disease was for a long time very small. Nay, even the percentage of the disease among the troops in the first years after the ordinance was passed was greater than it had been in the ordinary quiet times which preceded the last China war, when no regulations of any kind were in force. In 1862 the ordinance was more stringently carried out, with a corresponding reduction in the percentage of disease to one-half of its previous amount. This reduction continued during the years 1863 64-65-66; in 1866 the regulations were again improved, and the total percentage for the year 1867 was eleven. Thus Hongkong compares very favourably with the present state of the British forces in Japan, where there are no sanitary regulations. During the last six months of 1867 there were 292 admissions from an average strength of 684 men. Not satisfied with this improvement, the Colonial Legislature have enacted an ordinance, No. 10, July 23, 1866, which is exceedingly stringent in its application. It directs that all brothels shall be licensed; that no prostitute shall be allowed to live elsewhere than in a licensed brothel. Outdoor prostitution or solicitation is strictly prohibited. If any person is infected with any contagious disease in a licensed brothel, the keeper becomes liable to a fine, and the prostitute who has communicated the disease to six months' imprisonment. The sick woman is to be conveyed to Hospital, and the cost of her maintenance while there is to be defrayed by the brothel-keeper. On the other hand, if any man communicate disease to any prostitute in a licensed brothel, he is also liable to fine and imprisonment. There are also penalties against brothel-keepers for harbouring persons infected with contagious disease, and against sick seamen who may decline or delay to go to Hospital, or leave Hospital before they are cured.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN APRIL, 1868.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Loss by Ignition (a)	Oxidisable Organic Matter (b)	Hardness.		Organic and other Ammonia.
				Before Boiling.	After Boiling.	
Thames Water Companies.	Grains.	Grains.	Grains.	Degs.	Degs.	Grains.
Grand Junction	29·33	1·00	0·55	14·5	4·5	0·014
West Middlesex	22·07	0·53	0·48	14·5	4·5	0·007
Southwark & Vauxhall	20·30	1·00	0·64	14·5	4·5	0·014
Chelsea	20·53	1·25	0·63	14·5	4·5	0·014
Lambeth	20·17	1·00	0·49	14·0	4·0	0·014
Other Companies.						
Kent	28·83	1·00	0·15	20·0	7·0	0·004
New River	19·51	1·00	0·37	14·5	3·5	0·007
East London	20·18	0·95	0·52	14·0	4·5	0·007

(a) The loss by ignition represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matters as 1 to 8; and the results are controlled by the examination of the colour of the water when seen through a glass tube two feet in length and two inches in diameter.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

To Leave.—The person must be elected a Fellow of the London College.

Ulna.—A pamphlet by Mr. Napper, published by Lewis, Gower street; another by Dr. Waring, published by Messrs. John Churchill and Sons.

Thoracotomy.—There will be an examination for the Fellowship next week. You can take the anatomical and physiological on the present occasion, and in November next the Surgical and pathological.

W. L. G.—Consult a Surgeon in good practice, and do what he bids. The word "weakness" has not a definite meaning, and is, per se, no guide to treatment in such a case.

Curious.—Consult the President of the Royal College of Surgeons or one of the Vice-Presidents. It is against our rules to recommend Practitioners.

The Intrusive Conduct of some Public Vaccinators.

The Editor is requested to answer the following:—

1. Has a public vaccinator, in the discharge of his duty, a right "to see that all children are properly vaccinated," in such a manner as to interfere with the private practice of another Medical man?

Case A.—The Surgeon to the Coast Guards finds that the public vaccinator has been endeavouring to induce one of that body to allow him to vaccinate his child *after* he has been informed that the child is under the care of the Surgeon, who does not consider that the child is fit for the operation to be performed.

2. Has a private Medical man a *right*, or has he not, to vaccinate *all* children whose parents wish him to perform that operation? Or are there "some children strictly belonging to the parish," whom he has no right to vaccinate?

Case B.—The public vaccinator endeavours to induce people to believe that he *alone* is the person to perform that operation.

*** We are not aware of any law which makes it the duty of the public vaccinator "to see that all children are properly vaccinated," in such a manner as to interfere with the practice of another Medical man. The public vaccinator contracts "that he will vaccinate every person resident in the district *who shall apply or be brought to* him for the purpose of being vaccinated." This form of contract, and the fact that "the Vaccination Act of 1867" recognises vaccination by private Practitioners (sections 12, 16, etc., *passim*), render it obvious that a public vaccinator steps out of the exact line of duty who acts and asserts what is alleged in the cases supposed by our correspondent. The duty of the public vaccinator is to vaccinate all children brought to him, whether by their parents or by a public officer acting *in loco parentis*, as, *e.g.*, the relieving officer (see sect. 9).

But whilst the duties of the public vaccinator, as such, are so defined, there is another line of duty imposed by the Act on the guardians, and that is once in six months (sect. 27), to "inquire into the circumstances" of every case in which a child born in their district has been neglected to be vaccinated, of which cases it is the duty of the *Registrar* to make a list—*i.e.*, of cases in which certificates of vaccination have not been received by him. The guardians, further, are to cause proceedings to be taken against persons in default; and for this purpose they may "pay any officer appointed by them to prosecute persons charged with offences against this Act, *or otherwise to enforce its provisions.*" The person contemplated as the officer to do this duty is the *Registrar*; and if he or "*any officer* appointed by the guardians to enforce the provisions of this Act" has reason to believe that any child under 14 within his union or district has not been successfully vaccinated, he is bound to give notice to the parent, etc., of the child to procure its being vaccinated, and, if such notice be not attended to, to take legal proceedings (section 31). Now the public vaccinator may be, and often is, Registrar, or may be appointed by the guardians their officer to enforce the provisions of the Act; and in that capacity it cannot be supposed that he is to shut his eyes to the existence of unvaccinated children, whose vaccination it is his duty to secure, as well as to secure the fees to himself for vaccination and for the registration thereof. Moreover, human nature, and especially Medical human nature, is keen enough in matters of competition, and the proverb of the "early bird" and the worm is in full force as regards vaccination. Hence, a public vaccinator is quite justified, we think (as a sharp man of business), in snapping up any case he can hear of where vaccination is neglected or unreasonably delayed. But there is nothing in the Act which entitles him to ignore the rights of the private Practitioner; to intrude into cases which are already in qualified hands; to set afloat the notion that he is *the* only or special vaccinator, or that there are any children, whose parents wish it, whom the private Practitioner has no right to vaccinate. Should the public vaccinator, through mistaken notions of duty, be guilty of such pretensions or interference as are here supposed, any Practitioner offended against would do right to call the attention of the clerk of the guardians thereto. On the other hand, the Practitioner will do well to be early and punctual in arranging for the vaccination of the children of his patients, and to comply with the strict letter of the law, by giving a *certificate* of unfitness for vaccination, in such a case as that quoted as case A. See further "Bauke's Vaccination Act 1867," published by Shaw and Co., Fetter-lane.

From the *Grantham Journal*, Saturday, May 9.

COLSTERWORTH.—Dr. Sandford, M.D., Exam. Licentiate of the Royal College of Physicians, London, Surgeon, &c., &c., begs to inform the Gentry and Inhabitants of this district, that in consequence of rumours having been spread about by sundry *greatly interested* and *evil* disposed parties that he purposes leaving this district, he now takes this opportunity of *flatly denying* such statement, and to assure his numerous patients and friends that until he can obtain the services of a Gentleman as partner equal to himself in skill and experience, he has not the most remote idea of doing so; and *when* such partner is obtained, he further begs to say *he is not* going to *leave the district*, but merely remove to a larger house a few miles from his present residence in consequence of the want of room and education for a very large family. He also embraces this opportunity to intimate that when such removal does take place he will still be found every morning by 9 a.m. at his surgery at Colsterworth, and *visit and prescribe* at the same rate of charges as hitherto.

Twyford Cottage, May 7, 1868.

[A CARD.]

DR. and DR. CHARLES ROBBS have made arrangements for Establishing a Branch Practice at Colsterworth.—May 1st, 1868.

Cure for Bothriocephalus Latus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to "W. H.'s" to the kind of pumpkin seed, I beg to state that Wood, in his "Materia Medica," refers to it as the seed of the common pumpkin (Cucurbita Pepo); and he says nothing to exclude the use of any cultivated variety. "W. H." must bear in mind that the preceding *fast* is an essential part of the treatment. I am, &c.

May 11. H. R. M.

The Ceremony at St. Thomas's Hospital.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the list of officials present at the laying of the foundation-stone of the new St. Thomas's Hospital yesterday, I did not observe the names of the Directors-General of the Army and Navy Medical Departments. Neither of these branches of the public service deserves to hold such a low position in the estimation of the Profession at large that their immediate heads should not have received invitations from the Medical or lay authorities of St. Thomas's Hospital. Such favours, I may be told, were distributed at the discretion of the Governors of the Hospital; but surely the Medical staff must have had it in their power to intimate that, at such an important and interesting national ceremony, the representatives of the public services ought to have had places.

As I occupy such a subordinate position in the Army Medical Department that it is extremely improbable that such omission on any future occasion can ever affect me individually, I can, without any fear of having personal feeling imputed to me, undertake to express what I feel assured will be the general feeling of disappointment among the members of my department, that their brethren in civil life should have so little sympathy with them. It is certainly no wonder that our position in social and public life should be *as it is*, when influential members of our own Profession through want of thought—I do not accuse them of want of heart—should by omission of courtesy show that we are so unimportant a body that we can be omitted from public ceremonials, and never be missed except by

May 11. One of Ourselves.

Propert Memorial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We have delayed addressing a note to you in answer to one or two communications which have appeared in the Medical journals in reference to the above fund in the expectation that the movement which was got up by Mr. Champion, the late organist, would not be proceeded with, and, in the interests of our old school, we are glad to be able to state that Mr. Champion has now retired. As this matter concerns a large body of the Medical element of the country, we crave your permission to make it known, through the medium of your valuable journal, the objects we have in view. The Epsom College being yet in its infancy, a number of old boys are anxious to assist, as far as they can, in forwarding its interests, and rendering it more valuable as an educational institution to those who may come within its walls, and whatever may tend to sustain or improve its character as a school of thorough liberal education will have their hearty support and assistance. At the first meeting, held March 20, 1868, those who were present, comprising some of the oldest and most influential Epsomians, thought that in the then state of affairs—without a clue as to the amount likely to be raised, and having the advantage of the opinions of only a limited number—it would be better to test the feelings of the old and present boys generally before committing themselves to any definite scheme; they therefore issued circulars with that object. Meanwhile, the sanction of the Council was obtained, and some of the individual members of that body were consulted as to the most appropriate form of the memorial. A favourable answer was obtained from many of the old boys, but a large number have hitherto hung back in consequence of an apparent division. Now, however, that we are seen to be working solely and steadily upon what, we venture to think, is the most reasonable method, we trust all will join us heartily. The Committee already appointed have taken into consideration several proposals, and at a general meeting which will be called at a date to be shortly fixed, the following will probably be brought forward and discussed:—1. The foundation of a library. 2. The establishment of one or more scholarships of the value of from £10 to £20, for boys in the highest forms, tenable on condition of their remaining at the College one or more years after obtaining it. 3. A scholarship or scholarships value from £20 to £40, not necessitating the holder to proceed to any university. 4. A gymnasium. It is not intended that the scholarship funds should be closed, but that they should form a nucleus, to which additions may be made as time advances.

We are, &c.

George Browning, }
Frederick Taylor, } Hon. Secs.

Φθειρ—Pediculus Louse.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—This parasite is one of the most fragile of insects, taken individually, and yet, collectively, one of the most difficult, in our present state of civilisation, to destroy. Its production would seem coeval with that of man himself, since each animal has its own parasite, carefully figured by Redi, while man himself has three, if not four. If once they obtain a footing, their multiplication is rapid in the extreme. A louse, it is said, will lay in six days fifty eggs or nits, and in four-and-twenty days the young are able to assume the maternal office. Loewenhoeck encouraged them for a time on his own person, in order to determine these points. The nit or egg of the louse is furnished with a very singular operculum, or lid, most probably with the view of facilitating the exit of the young insect. Exclusive of life on the human person, I saw them between the eyelashes, a circumstance also recorded by Paulus Ægineta. A case is described in Hufeland's *Journal* in which they were alleged to have gained admission into the vagina.(a) The wildest notions have been current about lice. Heberden cites, from Wilmot, an instance in which small cutaneous tumours, *tumores exigui*, on being pricked were found to give issue to lice. I confess I do not believe the statement—at least, I know of no parallel one. Home avers that lice are generated by dirt, *a spurcitie orta*. Dr. Balmanno Squire states that prurigo is capable of generating lice(b). Not only is prurigo incapable of generating lice, seeing that they spring from other lice only, but lice, though abundantly productive of pruritus, are quite incapable of inducing prurigo, a disease which every Practitioner of any experience must have witnessed in persons of scrupulous cleanliness and quite

(a) MacCormac, *Methodus Medendi*, p. 425.

(b) *Medical Times and Gazette*, May 2, pp. 467 8.

exempt from pediculi. These insects are only too prevalent in certain classes of the community, whereas prurigo is a comparatively rare disease. Van Hasselt speaks of the frequent combination of lice with plica, *dubiæ sanitatis*, but he does not therefore go so far as to assert that plica causes lice, or that lice causes plica.

Not long since I read in the report of a scientific meeting that lice (naming the individuals) were heirlooms or companions of certain families. Equally absurd is the statement that the lice disease, phthiriasis, morbus pediculoris, the "swarm," had destroyed, and did still occasionally destroy, certain persons, and that this fate actually befel Plato, Herod, Philip II., the Dictator Sylla or Sulla, and others. These stories may be dismissed to the limbo of all lies. Lice never caused the death of any one. Indeed, they are held beneficial by the ignorant poor of some countries, and Parr even mentions their Medical employment for certain purposes. If they could kill any one, it should have been the wounded sufferers after the battles in the Crimea, the Northern prisoners confined in the Southern States' prisons, among both of whom, as in like disastrous conditions—for example, the survivors after shipwreck—lice swarmed indeed. Soap and water is the perfect specific for lice, and when the daily tub, with clean linen, and flannel over it, becomes an institution among the community at large, as it has already become among the few, lice will be only known from the plates of naturalists or on the persons of savages.

I am, &c.

Belfast, May 4. HENRY MACCORMAC, M.D.

COMMUNICATIONS have been received from—

Dr. S. W. D. WILLIAMS; A SUBSCRIBER; DR. H. A. EBDEN; Dr. WHITMORE; Mr. W. F. TEEVAN, CHEMNITZ; Dr. STEWART; Dr. F. W. P. JAGO; Dr. DRYSDALE; Dr. JOHN MURRAY; H. R. M.; Dr. BARNING; Dr. LAKE; Mr. J. ROBERTSON; Miss H. BROMLEY; Mr. T. M. EVANS; Mr. POOLE; Dr. BATEMAN; Mr. HENRY SARGENT, Dr. WILTSHIRE, Mr. HAVILAND; Dr. 'HITCHMAN; REES LLEWELLYN; DR. LETHEBY; Mr. G. LUCAS; Dr. J. B. WEIGHT; Messrs. CLERY and Co.; Dr. DOUGLI; Mr. C. G. CARTTAR; Dr. CLIFFORD ALBUTT; Dr. HUGHLINGS JACKSON; Mr. J. CHATTO; Mr. STONE; Dr. BARNES; Dr. CHOLMELEY; Dr. ANDREW CLARK.

BOOKS RECEIVED—

Report of the North Riding of Yorkshire Lunatic Asylum—Journal of Anatomy and Physiology, May—Billing's First Principles of Medicine, 6th edition—Nouveau Dictionnaire de Médecine et de Chirurgie pratiques, Tome huitième—De Labordette de l'Emploi du Spéculum Laryngien—Proceedings of the Royal Society—Historical Account of the Middlesex Hospital—Army Marriages, by Brown Bess—Pacific Medical and Surgical Journal, April—Garrod's Materia Medica—Parkes's Scheme of Medical Tuition—The Great Architect—Royle's Materia Medica, 5th ed.

NEWSPAPERS RECEIVED—

Gardener's Chronicle—London Medical—Medical Press and Circular—Teignmouth Times.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 9, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending May 9.	Deaths. Corrected Average Weekly Number	Deaths. Registered during the week ending May 9.	Temperature of Air (Fahr.). Highest during the Week	Temperature of Air (Fahr.). Lowest during the Week	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126987	40·1	2256	1441	1340	82	38·0	59·2	0·03	3
Bristol (City)	167487	35·7	117	75	85	..	..	..	..	..
Birmingham (Boro')	337300	47·0	230	171	198	74	36·0	52·3	0·10	0
Liverpool (Borough)	527980	42·0	360	240	240	..	37·7	53·2	0·16	16
Manchester (City)	356953	51·8	240	158	174	..	37·0	53·3	0·00	0
Salford (Borough)	117162	22·7	87	75	75	71	32·0	50·8	0·01	0
Sheffield (Borough)	232362	10·2	145	152	164	74	37·4	56·8	0·24	24
Bradford (Borough)	106610	16·4	90	70	65	..	..	..	..	..
Leeds (Borough)	269749	11·0	247	129	101	75·0	32·5	51·0	0·23	23
Hull (Borough)	108200	30·4	97	46	47	72	31·0	47·3	0·04	4
Newcastle-on-Tyne, do	127701	20·9	100	68	48	..	..	..	..	..
Edinburgh (City)	177000	41·0	155	85	74	64·7	32·2	47·9	0·02	20
Glasgow (City)	443808	88·0	376	262	295	66·1	36·6	48·6	0·17	17
Dublin (City and some suburbs)	319987	32·8	191	157	158	70·1	32·7	51·7	0·62	2
Total of 14 large Towns	..	..	4784	3163	2306	82·3	31·0	50·7	0·10	10
					Week ending May 2.			Week ending May 2.		
Vienna (City)	(1863) 560000	..	..	..	337	..	..	38·4	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·816 in. The barometer was reading decreased from 29·888 in. at the beginning of the week to 29·8 p.m. on Sunday, May 3, increased to 29·97 in. by 9 a.m. on Wednesday, May 6, decreased to 29·61 in. by 9 p.m. on Saturday, May 9, and was 29·61 in. at the end of the week.

The general direction of the wind was E.N.E.

Note.—The population of Counties and Boroughs in Italics is estimated on the assumption that the increase since 1861 is the same as in the next annual district between the increase in 1861 and 1861, as this is the period, however, the estimate is probably the estimate may in some

The deaths in Manchester and Bristol include those of persons

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 9, 1868.

BIRTHS.

Births of Boys, 1154; Girls, 1102; Total, 2256
Average of 10 corresponding weeks, 1858-67, 1909·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	705	635	1340
Average of the ten years 1858-67	631·4	620·8	1252·2
Average corrected to increased population..	..	..	1377
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	2	7	6	2	7	4	3	..
North ..	618,210	3	6	6	1	17	14	6	..
Central	378,068	3	5	4	..	11	5	1	..
East ..	571,158	2	25	7	..	17	4	4	..
South ..	773,175	7	12	5	2	17	11	5	..
Total ..	2,803,989	17	55	28	5	69	38	19	..

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·816 in.
Mean temperature	50·1
Highest point of thermometer	82·3
Lowest point of thermometer	34·9
Mean dew-point temperature	44·7
General direction of wind	E.N.E.
Whole amount of rain in the week	0·05

APPOINTMENTS FOR THE WEEK.

May 16. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Bain, "On Popular Errors."

18. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. Peacock, "On an Endoscope." Dr. Oppert, "A Case of Visceral Syphilis." Dr. Thorowgood, "On Biliary Calculus." Dr. Sedgwick, "On Laryngeal Colic." Dr. Day, "On the Spinal Origin of Rheumatism."

19. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 9 a.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."

20. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 8 p.m. Meeting.

21. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

HAHNEMANN SOCIETY OF LONDON, 8 p.m. Dr. Sissen, "On the Employment of Emetics and Purgatives."

ROYAL INSTITUTION, 3 p.m. Prof. Grant, "On Astronomy."

22. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

(Continued from page 495.)

Causes of Apoplexy.—According to the old definition, these might be numerous, the simplest that of a ligature around the neck, producing temporary congestion of the brain; but restricting ourselves to the definition of effusion of blood arising from the rupture of an artery, the main cause would be disease of blood-vessels, and thus the reason of increasing liability to apoplexy with advancing age. In younger persons a cause may sometimes be found in aneurism of the cerebral vessels, in all probability much more frequently than is now done if carefully looked for. I remember, twenty-five years ago, seeing the late Mr. Wilkinson King carefully washing a brain so as to expose the blood-vessels, as he expected an aneurism, at the same time informing me that he had discovered a ruptured sac on three several occasions in the midst of an apoplectic clot. Since in older persons there is disease of the blood-vessels, you might suspect that they were often the subjects of Bright's disease. You are constantly being told of the various degenerations which occur in the tissues in morbus Brightii, and more especially in the blood-vessels, one evidence of which is witnessed in the amaurosis and effusion in the choroid, which is a frequent concomitant of Bright's disease. In most cases you will find the cerebral vessels evidently diseased, as seen by the naked eye; in other cases you find the smaller arteries thickened, and the more minute ones, when placed under the microscope, are seen to have undergone a fatty degeneration. You know also how frequently hypertrophy of the heart is found in chronic morbus Brightii, and in connexion with this circumstance is the interesting fact that this state of heart had long been observed in fatal cases of apoplexy, and a theory was held that the effusion of blood was due to the increased pressure on the vessels in consequence. The fact shows that these were really cases of Bright's disease in which apoplexy occurred, although, most remarkably, the kidneys were never examined. It is important to remember that connexion, because the discovery of albumen in the urine of a person lying in a lethargic condition might suggest uræmia, and lead us away from the idea of apoplexy, whereas it would only be another evidence in favour of diseased blood-vessels. This hypertrophy of the heart led to the notion that increased pressure on the blood-vessels had much to do with their rupture. Now, as a matter of fact, I believe they must be actually diseased before they can give way. But supposing the moment has all but arrived when the catastrophe is to happen, you may imagine that a very little increased force acting on the vessel will cause it to rupture. I suppose with you that this may be the case, but I have very little positive information to give you about it, and I am cautious in teaching more than I actually know.

It is said that increased action in the arterial system may cause rupture of a vessel, or delay in the venous system do the same, but in a healthy person strangulation does not produce apoplexy, and in those frightful cases of congestion of the head seen in bronchitis apoplexy is not an ordinary result. The fact is, the character of the circulation of the blood in the head is not yet quite understood; it appears that it can never contain more than a certain amount of the fluid Then, again, the anastomoses are so remarkable that we may have such a state as I one day met with in a case of ligature of the carotid, which certainly would never have been anticipated. The common carotid had been tied, and when the patient died a few days afterwards the whole of the cerebral vessels, as well as those of the pia mater, were filled with solid coagulum. It is said that the immediate causes of apoplexy are over-exertion, straining at stool, or any undue excitement. I cannot say from my own experience that such causes are effectual. It appears to me that it has been too readily assumed that during exertion or movements of the body there is greater stress thrown upon the blood-vessels, and that they are then more liable to rupture. The presumption has been taken from the fact of hæmorrhage on the surface of the body being arrested by pressure and quietude; but no inference can be drawn from this as to the amount of force exerted on the blood-vessels during rest or movement. You know Mr. Durham has made experiments whereby he has shown that the circulation of the blood through the brain appears less active in sleep than waking. However this may be, I cannot disregard our experience as to the occasions on which hæmorrhage is likely to occur from the bursting of a diseased vessel. In the case of a diseased cerebral artery, I am not at all sure that the pressure is greatest upon it when the circulation is active, for how can we account for the very frequent occurrence of apoplectic seizures in the night when the patient is asleep?

Take, again, the case of hæmoptysis in connexion with tuberculous disease of the lung. I believe it is rather the rule than the exception, when this occurs, for the patient to wake in the night with blood in the mouth; in the daytime there had been no sign of its occurrence when the patient was actively engaged. In spite of this fact, when we are treating a case of hæmoptysis, we insist on the patient being absolutely quiet, to lie in bed, to make not the slightest movement of the arms, such as putting on a coat, which we suggest might seal his fate. Believing that such practice has been determined entirely on *à priori* considerations, I have for some time ceased to adopt it, and certainly with no ill consequences to the patient. I am inclined to believe, although I must not teach you this as a proven fact, that the pressure exerted on the blood-vessels is greater during sleep, and is lessened by exercise. The case of sudden rupture of the heart will also bear out my statement. In several cases which I have seen where the patients were found dead in bed, a fatty heart had suddenly ruptured, and this in persons who had been at work, or at least walking about, all day. I believe there are cases of heart disease where a little gentle exercise will promote a more active circulation through the system, and thus quiet the palpitating and irritable organ. These remarks arise out of the question as to the exciting causes of apoplexy, and my exceeding great suspicion that those usually given have been concocted by writers in their study, and not adopted as the result of experience.

Diagnosis of Apoplexy.—According to the old definition this is easy. If we go back to Cullen, it is simply synonymous with insensibility, and would be applicable to cases of poisoning or drunkenness as well as to cases of disease.

If, however, we mean by apoplexy effusion of blood into the brain, how do we then frame our diagnosis? If the attack be of the more ordinary kind mentioned, this is easy. If there be the sudden seizure of pain in the head, giddiness, etc., followed by thickness of speech and weakness of limbs, the case is clear.

If, however, you are called to see a patient at a still later period, when he is quite insensible, you will have to inquire into the history. You may find him in the ordinary condition which is known as apoplectic, with stertor, coma; but you may clearly make out from the face and movement of one side that a paralysis exists, and, therefore, you may diagnose apoplexy. If the coma is profound, the chance of his ever coming out of it again is most remote.

If you see a patient immediately he has fallen, and you find him in a state of deep coma, you may be pretty sure the case is not one of apoplexy. If you hear that he has struggled, it is in all probability epilepsy, and the fact of his having apparently some hemiplegia is no argument against it.

When a Medical man is called to see a person who is lying insensible with apparent paralysis of one side, the case presents considerable difficulty. I have seen an epileptic patient under these circumstances regarded as apoplectic; and, on the other hand, I have, on several occasions, seen the case of fatal apoplexy looked upon as epilepsy. This was no doubt owing to convulsive movements.

The most difficult case which the House-Surgeon of an Hospital can meet with is that of a man brought from the streets in a perfectly insensible condition. He may have fallen and have a wound on the head. The question the Surgeon asks himself is—Is there an injury? Is the case one of apoplexy? Is the patient poisoned or drunk?

In complete insensibility there may be effusion of blood in large quantities in the ventricles, at the base of the brain, or in the pons Varolii. In these cases the pupils may be contracted, and thus the resemblance to poisoning by opium. The probabilities would be in favour of the latter if the breathing were very slow. You have heard Mr. Stocker express an opinion in favour of apoplexy if, on undressing the man, there is found a fæcal discharge in his trousers.

If the patient be in a semi-conscious state, there are three conditions which are much alike—concussion, drunkenness, and uræmic poisoning. In none of these are there any very characteristic symptoms; the patients move their limbs, and perform automaton-like movements, and the pupils are of the ordinary size. The so-called serous apoplexy of older writers was probably Bright's disease. Two cases which much resemble one another are those of ingravescent apoplexy and effusion of blood from rupture of the middle meningeal artery. In both there is the shock and the collapse, with the reaction, coma, and paralysis. The latter, however, is only partial in the case of compression. About two years ago we had two cases, admitted to the Hospital in the same week, in which the diagnosis was most difficult, owing to the erroneous history. A man was found lying insensible in his workshop, and brought to the Hospital, his friends saying that he had previously had fits. His head was shaved, and most carefully examined, and not the slightest trace of injury could be discovered; consequently, the case was regarded as one of disease; yet, when examined after death, a crack was found through the temporal bone, and blood effused on the dura mater. The other case was that of a man who, after reaching home, said he had received a blow on the head, complained of pain, and gradually sank into a state of insensibility. He was brought to the Hospital with apparent paralysis of one side. The House-Surgeon was about to trephine, but deferring the operation for consultation, it was not performed. There was found after death a clot of blood in the thalamus opticus, and not the slightest trace of injury.

Time will not permit me to endeavour to unravel every possible case of the kind, and indeed I could not, for I believe when you are called in to see a patient lying insensible, it is often perfectly impossible to form a diagnosis, although you may make a good guess. I ought to have said that the suddenness of the paralytic attack does not preclude the possibility of the case being one of softening. This process may go on gradually, and then suddenly some connecting fibres will be severed, and the consequent paralysis ensue.

(*To be continued.*)

ABSTRACT OF A LECTURE

ON THE

ARTIFICIAL PRODUCTION OF TUBERCLE.

DELIVERED AT

The Royal College of Physicians,

May 15, 1868,

By WILSON FOX, M.D.,

Holme Professor of Clinical Medicine, University College, London.

Dr. Fox commenced his lecture with a sketch of the different attempts which have been made at the artificial production of tubercle. Baron, he remarked, had asserted that he and Dr. Jenner had produced tubercle in rabbits by a particular kind of diet, but from Carswell's plates of these "tubercles" it was quite certain that they were entozoa. Cruveilhier thought he obtained tubercles in the lungs by the injection of mercury into the trachea, but in reality, as subsequent experiments have proved, he only obtained lobular pneumonia. One of the first attempts at inoculation was made by Professor Erdt. In his experiments, undertaken for the purpose of ascertaining the identity of scrofulosis and farcy in the horse, appearances were produced much akin to tubercle. But attention was chiefly called to the subject by the researches of M. Villemin, laid before the French Academy in 1865 and 1866. He succeeded in making rabbits tuberculous by the introduction of small pieces of tubercle under the skin. With other materials he failed. Villemin's experiments were repeated, and his conclusions to a great extent confirmed, on the Continent by MM. Hérard and Cornil and M. Lebert, and in England by M. Simon. It was stated last year, however, by Dr. Andrew Clark, that the inoculation of other materials than tubercle would render animals tuberculous. It was on account of the discrepancy which existed between Dr. Andrew Clark's conclusions and those of other observers, and to endeavour to clear away the uncertainty which attended this important question, that the lecturer's experiments were undertaken. Dr. Sanderson had, at the same time, been carrying on similar experiments, the results of which were lately laid before the Pathological Society; and Dr. Fox stated that, working quite independently, they both had arrived simultaneously at the same conclusion, that many morbid materials besides tubercle, and even inert matters, introduced beneath the skin of the Rodentia, will render them undoubtedly tubercular.

In the lecturer's experiments 117 guinea-pigs and 12 rabbits were inoculated with various materials. Of the 117 guinea-pigs 58 had proved tubercular, 6 were doubtful, and 53 had failed. Those cases only were reckoned successful in which three of the following internal organs were affected—lungs, bronchial glands, liver, spleen, peritoneum, intestines, lymphatic glands. Where less than three were affected the case was classed as "doubtful." Extensive tables were exhibited showing the particulars of each case of inoculation. The animals had all been placed under conditions as healthy as possible, and were well fed and attended to. Inoculation of solids was performed with a long trocar (fitted with a piston), that of liquids with a hypodermic syringe. Of solids no larger piece than the size of a canary-seed was ever used.

The various morbid appearances met with in the successful cases after death were then described at considerable length. Of these, the following is a summary:—Two effects of inoculation were very rare—sloughing near the injury and local suppuration. But although circumscribed abscess and true pus were almost unknown in the guinea-pig, collections of foul cheesy matter under the skin formed one of the commonest local changes. It was commonly encapsuled, the capsule being firm and almost lardaceous in consistence, and passing insensibly into the surrounding tissue. In many cases extending round the local injury for a variable distance, small semi-transparent granulations were found, in size from that of a poppy-seed to that of a hemp-seed. Sometimes they were arranged in lines or scattered circles, and reached as far as the neighbouring lymphatic glands, round which they were grouped more closely. In addition to these, cords of induration, often cheesy in their centre, were occasionally met with, especially connected with the lymphatic glands. The granulations were often imbedded in the cellular tissue, and required careful searching for, which might account for the slight notice they had received from other observers. Under the microscope they were seen to consist, in the centre of a mass of nuclei, probably belonging to cells which were not visible, and at the margins of round and fusiform cells, about $\frac{1}{5000}$ inch in diameter, together with larger ones $\frac{1}{1000}$ inch in diameter, and strongly resembling epithelial cells. Within these granulations peculiar strings of cells and nuclei were also seen, apparently enclosed within some limitary membrane, and looking as if the result of the altered growth of a lymphatic. The nearest lymphatic glands were enlarged and indurated; their section semi-transparent and cartilaginous-looking, with streaks and masses of cheesy material. The loculi of the cortical substance were densely packed with cells like ordinary lymphatic cells. At some parts the cells were undergoing fatty degeneration; other parts had undergone a fibroid change.

The *lungs* were permeated, more or less equally, with small scattered granulations, in size from that of a hemp-seed to a minute point, occasionally grouped, and then often showing a network of fibres running between the component granules—an appearance often seen in the human lung. Large tracts of the lung had sometimes undergone a fibroid change. The granulations had a semi-transparent cartilaginous margin, and a cheesy centre, which, in the larger ones, was sometimes breaking down. Minutely examined, some were situated around bronchi, some on vessels, some apart from either. In the sheath of the bronchi they appeared to grow from little masses of lymphatic tissue normally found there. They consisted of masses of cells, about $\frac{1}{5000}$ inch in diameter, of which often only the nuclei were visible. Another position was the perivascular canal, in which they appeared to grow from the epithelium lining the canal. From both they extend rapidly into the surrounding pulmonary tissue. In the neighbouring capillaries a remarkable change occurred. The nuclei enlarged, and the capillaries ceased to contain blood, their position being only marked by a line of nuclei traversing the wall of the air vesicle. This took place in an area around the granulation, round which a thickening of the walls of the air vesicles also occurred—an appearance likewise seen in the human lung. No appearance of pneumonia was ever noticed. The bronchial glands were affected like the axillary.

The *liver* was larger and denser than natural. A glistening semi-transparent tissue replaced the normal structure in

specks, in lines between the acini, or in larger masses. The organ did not stain with iodine, and was brittle. Cheesy spots were frequent. The microscope showed the semi-transparent tissue to consist of cells embedded in a network of fibres.

The *spleen* was several times larger than natural. Sometimes rounded specks were seen, apparently enlarged Malpighian bodies; sometimes these were collected into groups and racemose masses. Large tracts were sometimes converted into a glistening transparent tissue like that in the liver. Cheesy spots were found, very different from pyæmic spots. Fibroid changes also occurred.

In the *intestines*, milky-white spots were scattered through the mucous membrane. Peyer's patches were enlarged and prominent both in the small intestine and the cæcum. Sometimes they were ulcerated, slightly in the former, often considerably in the latter, where the ulcers presented the granular uneven floor of the typical tubercular ulcer. The solitary glands were often enlarged and cheesy. The mesenteric glands were very uniformly affected. Dropsy in the peritoneum was common. Scattered through the omentum were granulations precisely like those found in tuberculous peritonitis in man, but without any sign of inflammation.

Out of the 117 cases, internal organs were affected in 64, and of these the local lymphatics were affected in 54, the lungs in 59, the bronchial glands in 55, the liver in about the same number, the omentum in about half, and the intestine in a quarter of the cases. Rabbits exhibited effects less frequently than guinea-pigs.

In all the cases the growth was one resembling lymphatic structure, and one of the safest definitions we can give of tubercle is that it is "a growth resembling lymphatic structure"—*i.e.*, it consists of round cells or nuclei embedded in a fibrous network. This structure occurs in masses like the acini of a lymphatic gland. The connective tissue in which they appear to grow changes its type of structure, and gives rise to one resembling lymphatic structure. The mutual pressure and the occlusion of the blood-vessels cause this to pass into an early decay. In the lung there is certainly nothing of the character of pneumonia, lobular or catarrhal. The alveoli are affected by thickening from without, not by infiltration from within. The point of departure is not the blood-vessels, but something external to them, and their constant occlusion is the result of pressure or the implication of the wall of the capillary in the growth. The obstruction to the vessels is not from embolism, but from a growth from without, irritative rather than inflammatory, chiefly in the lymphatic system.

The affection of all these organs is manifestly tubercular. The only one which admits of doubt is the liver, and the affection there is, in its essential character and mode of growth, the same as tubercle in man. Any one who doubts whether these growths are tubercular is bound to show that a new disease exists, affecting only the *Rodentia*, excited by specific agencies, occurring in all the organs in the chosen seats of tubercle in man, growing with the same histological characters, and yet that it is not tubercle. The only disease the effects of which resemble it is leucocythemia. But neither tubercle nor the affection of the guinea-pigs is attended with an increase in the white corpuscles of the blood. The use of the word is being so restricted by different pathologists that it becomes a matter of difficulty to identify a disease with tubercle. Virchow's careful observation that all cheesy matter is not tubercle is being pushed to an extreme, and some pathologists doubt the tubercular character of any cheesy matter. Were all the limitations adhered to, "tubercle" would certainly cease to have a place in our nosologies. The microscopic characters are, perhaps, less valuable for identification of these growths than the naked-eye characters. Tubercle is a growth that undergoes many transformations, and at different stages it presents different appearances (especially in the lung), depending on the rapidity of its growth and the degree to which the epithelium is involved in it.

How are these growths produced? If these experiments are satisfactory, Villemin's statement that tubercle is a specific growth producible by itself alone becomes untenable. A thread saturated with vaccine lymph, a piece of putrid muscle, and even a simple seton, will give rise to a growth not distinguishable from tubercle. The experiments prove clearly that some substances are far more potent in producing it than others, and of all true tubercle and the so-called tubercular pneumonias are the most powerful.

[Of the 117 experiments, 51 had succeeded, 6 ranked as doubtful, 53 failed.

The following is a summary of these:—Tubercle from man inoculated eight times succeeded six times. Tubercle reinoculated from guinea-pig to guinea-pig twelve times, succeeded twelve times. The origin of this primary tubercle made no difference in the secondary result. Various doubtful reinoculations, and reinoculations of inflammatory products, fifteen in number, gave only one success and one doubtful case. Sputa from chronic bronchitis and acute pneumonia, four inoculations; no result. Sputa from phthisis, two inoculations; one result. Pus from various sources: non-tubercular, seventeen inoculations; seven times tubercle produced, one doubtful, nine failures. Various forms of "scrofulous," "tubercular," or "cheesy" "pneumonia," eleven inoculations, eleven success. Acute sthenic pneumonia, two inoculations; no effect. Solid portions of other acutely inflamed tissues, eleven inoculations; four times tubercle, seven failure; among these, three of false membrane of diphtheria failed. Portions of chronic inflamed or degenerated tissues, gelatinous inflammation of knee, cirrhosis of liver and kidney, and lardaceous liver, nine inoculations; six success, one doubtful, two failure. Peyer's patch in typhoid, two inoculations; no result. Pieces of thread charged with vaccine lymph, four inoculations; all produced tubercle. Pieces of thread charged from true infecting syphilitic sores, six inoculations; all failed. Portions of cancer, two inoculations; both failed. Putrid muscle, fourteen days old, from dissecting room, five inoculations; four produced intense tubercle, one died emaciated and dropsical without any discoverable tubercle. Simple pieces of clean cotton thread introduced under the skin, three inoculations; one success. Setons under the skin, four cases; one tubercle, three failed. In a few cases of failure the animals died after short periods from the effects of the injury and local suppuration. A few died from cold, but the majority were killed at intervals of from 40 to 130 days, and presented no change in the internal organs. The average period in which the tubercular animals died was from 40 to 75 days. Some proved, however, tubercular in shorter periods. One died intensely tubercular in six days.]

The analogy between the substances used for inoculation and those which, under certain circumstances, exist already in the system is very important. It shows how, as Niemeyer believed, tubercle in the lung may be often secondary to pneumonia, and tubercle elsewhere secondary to that of the lung. It also shows how the presence of an irritant, such as diseased bone, may give rise to the formation of tubercle, while (as Mr. Holmes has shown), if the bone is removed, the danger is averted.

In conclusion, Dr. Fox remarked that the field is a very wide one, and will well repay careful investigation. We may hope that, as the conditions under which tubercle is produced are better understood, we may be able to prevent, if not to cure, the disease.

ANOTHER MEDICAL MAGISTRATE.—Dr. George B. Owens, of Kildare-street, Dublin, has been appointed by his Excellency the Lord Lieutenant of Ireland to the Commission of the Peace for the county of the City of Dublin. No one has better deserved such a recognition of eminent public services than Dr. Owens. Though extensively engaged, during nearly a quarter of a century's residence in the Irish metropolis, in private practice, he has found time for the zealous and benevolent discharge of the duties of Guardian of the Poor, an office which he has filled for the last twenty years. He has for nearly as long a period been a member of the Court of Examiners of Apothecaries' Hall, and was on two several occasions elected Governor of the Hall. A marked characteristic of Dr. Owens has always been his anxiety to maintain the dignity of his Profession, and to secure for his brethren holding public appointments adequate remuneration for their services. Whenever the question of Medical salaries has been before the Board of Guardians to which he belongs, or the Corporation of Dublin, of which also he has for the last few years been a member, his ready and influential voice has invariably been heard on the right side. It is, therefore, with pleasure that we record the distinction which the Viceroy has been pleased to confer upon him—a distinction the more marked, as the magistracy of the county of the City of Dublin includes the names of only two other Medical men.

THE personal property under the will of Dr. John Davy, F.R.S., brother to the celebrated Sir Humphry Davy, has been proved under £14,000.

ORIGINAL COMMUNICATIONS.

A CASE OF

BASIC COMPLEX LUNG DISEASE.

By ANDREW CLARK, M.D., F.R.C.P.,
Physician to the London Hospital; and
PETER MARSHALL, Esq.

One can no longer doubt that the symptoms of disease roughly grouped under the term pulmonary phthisis arise from conditions of lung very different from one another. The anatomical proof of the accuracy of this conclusion is complete. Out of it springs this question of pressing importance: Are those diverse conditions of lung capable of recognition during life? The answer, in some instances doubtful, is for all others difficult and incomplete; and if complete it is ever to be made, it can only be through the careful observation and faithful record of numerous cases of exceptional forms of pulmonary disease. We offer this case to the Society(a) as a small contribution to the elucidation of this interesting and important subject.

For a long period the case was under the sole charge of Mr. Peter Marshall, who ultimately associated Dr. Clark with him in its management. The written notes date from November, 1867, when the patient was admitted into the London Hospital

J. E., 26 years of age, single, a clerk, residing at Newcross, complains of paroxysmal cough, ending in vomiting, fœtid muco-purulent expectoration, shortness of breath, pains in the chest, night sweats, occasional diarrhœa, evening fever, and steady loss of flesh, colour, and strength. Patient is tall and well formed, but spare; hair dark; eyes grey, pupils large, under eyelids dark and puffy; face full, and, with the exception of a slight red about the cheeks, pallid; chest of good size; abdomen small; manner quick and intelligent.

Here is the summary of his history:—Enjoyed good health till 1863. In the early part of that year he had gonorrhœa, followed by orchitis, which kept him under treatment for three months. At the close of the same year he contracted chancre, for which he took medicine during four months, and, as it seems, got salivated. The sore was never followed by any of the ordinary symptoms of constitutional syphilis. Before recovering from the chancre his present illness began, not, as he believed, abruptly by rigors or pain in the side, but insidiously by slight cough and occasional expectoration. From this date patient got sometimes better and sometimes worse, but never well. By-and-by he began to get short-breathed on mounting a stair, and to have pain in the right side. In the early part of 1864, he experienced occasionally, after exposure to cold, a sensation "as of knives running into his right side," and he noticed for the first time that, at intervals, his expectoration was offensive, and that he was unable to lie on either side. For the next eighteen months the disease made little progress one way or the other; his general health was not much affected, and he continued his occupation in tolerable comfort. About the end of 1865, he became an out-patient at the Brompton Hospital, and continued attendance for a year without any marked alteration or improvement. In the beginning of 1867, patient's tonsils became affected, and continued to discharge for some time an offensive curdy pus streaked with blood. About this time he was seen by Dr. Andrew Clark, who did not detect any definite lung disease. Patient now became worse, and in March Dr. Clark found unmistakable evidence of the existence of disease in the base of the right lung. From this time patient became steadily worse; the cough grew urgent and paroxysmal, the expectoration abundant and terribly offensive, and the breath short. When, reclining in bed, he sat up and leant forward, violent coughing arose, and his mouth, as he said, filled with a matter tasting, smelling, and looking like rotten eggs. In September, 1867, patient was suddenly seized with severe pain in the left side, aggravated by breathing and coughing, and followed in a day or two by a more or less constant sensation of rubbing or grating in the side and back. This disappeared in about three weeks, but all his other symptoms became aggravated.

In November, 1867, patient was received into the London Hospital, and here is the report of his condition made at that time:—The chest is thirty-six inches in circumference just beneath the arms, and thirty-four beneath the nipples. It is well formed. Breathing chiefly abdominal, and twenty-eight per minute. The right side moves less freely on inspiration than left. Just above the nipple it measures an inch more, and at the base an inch less, than in the same situations on the opposite side. Tactile vocal fremitus is everywhere less marked on the right than on the left side. Dulness slight over the summit, extreme from nipple to base in front, moderate in the lower part of axillary region, great behind on a level with the sixth dorsal vertebra, whence it goes on increasing to the hepatic region. Auscultation: Above clavicle breath-sounds harsh, expiration prolonged, resonance normal. From clavicle to nipple breath sounds feeble, resonance increased, heart-sounds audible. Below this breath-sounds feeble, with an occasional bronchial expiratory puff; vocal resonance annulled. No projection of intercostal spaces, and no variation of dulness from position. Behind, respiration is tolerably normal down to level of sixth dorsal vertebra. From sixth to eighth dorsal vertebra, and for a distance of over two inches external to the spine, the breathing is markedly tubular, and at one spot, where a sort of gurgling is produced on coughing, cavernous. Here inspiration is accompanied sometimes by a creaking-leather sound, sometimes by an intermitting purring rhonchus; expiration is greatly prolonged, and the voice is loudly bronchophonic. More external to this, the breathing is of the blowing bronchial variety, and accompanied occasionally by a coarse moist crepitation. Still more externally, at the posterior border of the axillary region, and below this, the breath-sounds are all but inaudible; but resonance, though impaired, is not annulled. A few sub-crepitant sibilous râles are heard at intervals throughout this region. Left lung: Except at the base posteriorly, where there is slight dulness, percussion all over this lung is normal. Above, breath-sounds are normal. In lower part of axillary region inspiration is accompanied by an occasional creaking-leather sound. Behind, from level of sixth dorsal vertebra downwards, breath-sounds are very feeble, and accompanied at intervals by puffs of moist crepitation. Inspiration, too, is accompanied by an interrupted grating sound, like that produced by the movement of arrowroot grains upon each other. Tactile fremitus and vocal resonance nowhere materially affected. Cough troublesome and paroxysmal. The paroxysms end sometimes in vomiting, sometimes in expectoration. The sputum, nearly always got up with difficulty, consists of a very fœtid, frothy, muco-purulent matter, streaked with blood, and contains minute fragments of elastic tissue in the form of bands and areolæ. In repose the respirations are about 28 in the minute; but on coughing, attempting to lie on one side, or upon any exertion, they become irregular and much more rapid. The elements of bile were sought for in the expectoration without success. Heart small; sounds feeble; pulse 88. Tongue furred in centre, red at tip and edges. Appetite capricious; flatulent; bowels open; stools unhealthy; liver and spleen of normal size. Urine abundant and normal; on occasions it becomes turbid on standing. Sleeps moderately well. Occasional numbness in the extremities. Skin pallid and dry; fingers clubbed; nails incurved. Temperature previous day—morning, 99·2°; evening, 100·2°.

The diagnosis recorded at the time of examination was as follows:—*Right Lung: Chronic pneumonia of base, with gangrenous abscesses and bronchial dilatation. Fibrinous pleurisy; lymph invading the lung. Left Lung: Congestion of base, with fibrinous pleurisy. No evidence of liver disease.*

Patient was put upon full diet, with eight ounces of wine. After clearing out the bowels, he was ordered to have bark, iodide of potassium, bicarbonate of potash, and ammonia, three times a day, and to take every third or fourth night a dose of colocynth and blue pill. In order not to interfere with expectoration, no sedative was given for the alleviation of cough. Tepid sponging was ordered with sufficient frequency to keep the skin in full action. Patient improved in every way till January 6. The appetite and digestion were good; the cough, expectoration, and dyspnœa were less; the average temperature, respiration, and pulse had fallen. On the 7th patient began to fail; the evening temperature, pulse, and respiration rose, and much oppression began to be experienced in the chest. The bowels were then thoroughly cleared; hot poultices were applied round the base of the chest, and a saline diaphoretic took the place of the alkaline mixture. Patient, however, did not improve, and on the 11th he was seized with acute pain in the right side, aggravated by breathing, cough, and all movement. On listening with the

(a) Read before the Medical Society of London, May 11, 1868.

stethoscope, a superficial (pleural) crackling, unaffected by coughing, was heard throughout the lower part of the axillary region, and over the whole base of lung posteriorly as high as the angle of the scapula.

Patient was ordered a grain of opium, and had a large blister applied below the level of the fresh pleuritic inflammation. Next day he was quite relieved, but the pulse had risen to 112, the respiration to 40, and the temperature to 101°. On the evening of the 14th there was a recurrence of the pain, which extended through the base of the chest to the left side, and became so agonising as to excite the cries of the patient. Every movement gave him pain, and he was intolerant of the slightest pressure on the upper part of his belly. The respirations, costal and convulsive, were about 56 per minute, the pulse 136, and the temperature 101·2°.

A bandage was firmly applied over the whole abdomen and base of the chest, and large doses of opium were administered every two hours. By these means complete relief was obtained, and on the 19th the temperature had fallen to 98·8°, the pulse to 100, and the respirations to 32.

This attack was considered to be one of diaphragmatic pleurisy, and Dr. Clark feared that the disease in the base of the right lung would extend downwards into the liver.

Patient was now ordered to take fifteen drops of the solution of pernitrate of iron in water four times daily, to inhale twice a day a spray of a solution of the same drug of the strength of ten minims to the ounce, and to have daily four ounces of brandy in addition to his wine.

From the 19th to the 29th patient upon this plan improved much in various ways. The cough became less frequent, paroxysmal and exhausting; the expectoration less abundant and offensive; and the breathing, as he thought, deeper and easier. The respirations had fallen sometimes as low as 27, the pulse to 88, and the temperature to 98°.

About January 30, 1868, patient again became worse. The pulse, respiration, and temperature rose. The cough grew harassing, the breathing difficult, and the expectoration profuse and fœtid. The right hypochondrium was full and tender, the tongue red, appetite had failed, the nights were sleepless. Patient complained that the inhalation contracted his chest and increased his difficulty of breathing. The whole aspect of the patient suggested the idea of blood poisoning from absorption of septic matters into the blood. The feet had begun to swell.

The iron and the inhalations were omitted, and the amount of stimulus was increased. Patient was ordered to take chlorate of potash lemonade, to have two grains of sulphate of quinine every six hours, and to keep the cough in check by the occasional use of the glycerine linctus.

On the 6th, there having been several attacks of slight hæmoptysis, fifteen drops of the tincture of perchloride of iron were added to each dose of the quinine, which was doubled.

From February 6 to 29 patient continued not only to hold his ground, but likewise to appear at intervals considerably better. On the 16th the quinine was omitted, and from that date the only drugs employed were the chlorate of potash lemonade, perchloride of iron, and nux vomica, the glycerine linctus, and an occasional sedative at night.

On March 1 patient became rather suddenly worse. His face grew pallid and ghastly; purpuric spots made their appearance in various parts of the body, and the œdema of the left foot extended to the groin, making the whole limb tense, white, and cold. The tongue was red and aphthous; there were frequent retchings and flatulence; the bowels became irritable and the urine scanty and albuminous; the cough was hacking and frequent; the expectoration less in quantity, but more offensive; fits of palpitation, attacks of breathlessness, and sensations of faintness succeeded each other irregularly at short intervals; pains were complained of in all parts of the body, and the joints became tender; there was great restlessness, and expressions of irritability and impatience broke from time to time into wandering delirium. These symptoms continued, with considerable variations, to March 9, when the patient became much weaker. From this date he continued to sink, and died on the 12th, apparently without further suffering.

Post-mortem Examination.—Depending parts of body extremely livid; purpuric spots scattered over both extremities; left inferior extremity enormously swollen and tense. Brain and cord not examined. Thorax: Heart and pericardium healthy. Right lung: Viewed *in situ*, the upper third was free and apparently healthy, the lower two-thirds diminished in bulk, everywhere adherent, darkened in colour and altered in structure. On removing the lung from the chest, which was done with difficulty, a quantity of very fœtid pus escaped from an abscess, about the size of a bantam's egg, lying in the base, and having a part of its wall formed by the diaphragm, which was at this point of a greenish-yellow colour, and so soft as to permit the finger, with a little force, to pass through it to the liver. When the lung was laid open from apex to base, it was seen that the upper third was healthy. The middle lobe was at parts solidified, smooth, and of a yellowish-grey colour; and at parts it was studded by greyish bodies distantly resembling "grey granulations," and varying from the size of a pin's head to that of a pea or bean. From grey granulations, however, they differed in their varying size, and in their being granular, friable, and opaque. Most of these bodies occupied centres of lobules, and all of them looked like patches of partially reabsorbed vesicular or lobular pneumonia. The bronchi traversing this part of the lung were dilated, and the mucous membrane lining them was thick, soft, vascular, and coated with a yellowish friable deposit. From the thickened pleura bands of lymph passed inwards, uniting themselves with the interlobular and peribronchial areolar tissue. The lower third of the lung, invested by a greatly thickened pleura, was of a dark slate colour, dense, traversed by dilated bronchi, and studded with small cavities of apparently recent formation. Some of the dilated bronchi appeared to terminate abruptly in an ampullar dilatation in the middle of the lung; others continued uniformly dilated to the pleural surface, beneath which they ceased in a thickened extremity. The mucous membrane of these terminal dilated bronchi was thick, rugous, and studded with villi. Its free surface was coated with a yellowish material composed of pus-cells, molecular *débris*, vibriones, and a minute confervoid growth with its sporules. The cavities contained a fœtid grumous blood-stained pus. Some of the dilated bronchi were so closely set together that there was not a quarter of an inch of lung-tissue between them. The dense slate-coloured lung-tissue lying between the bronchial dilatations and cavities contained much pigment, disintegrating cells resembling the white corpuscles of the blood, and fibroid tissue which could be followed on the one hand to the bronchi and blood-vessels, and on the other to the thick false membrane coating the pleura. All the cavities lay immediately beneath the pleura. The one at the base, which had eaten through the pleura, and was eating through the diaphragm, was the largest. Left lung around its lower third adhered intimately to the costal pleura and the diaphragm. Upper two-thirds healthy, but infiltrated with serum; lower third loaded with blood, and rather dense. It contained several blackish-grey spheroidal deposits, some of which were soft, some hard, and not unlike grey tubercles. It contained also a few solidified patches, some of which were red, some yellowish, some grey, and all granular and opaque. Interlobular areolar tissue thickened. Bronchial glands enlarged, but not cheesy. Abdomen: The liver weighed four pounds. At a point corresponding to the abscess on the base of the lung it was adherent to the diaphragm, of a blackish-green colour, and quite soft. Cut into, the liver at this point looked as if it had been partially infiltrated with blood. Everywhere else the liver substance, though congested, was healthy. Spleen, kidneys, and pancreas free from obvious disease. There were small superficial ulcerations in the lower part of the ileum and the commencement of the ascending colon. The left iliac vein was quite blocked by a partially decolorised clot rather better than an inch in length. Blood taken from the vena cava and examined microscopically exhibited much granular *débris*, amorphous flakes, many of the red discs in a state of disintegration, and a great excess of colourless corpuscles.

Remarks.—On comparing the results of the post-mortem examination with the diagnosis, it will be seen that, though the latter was substantially right, it erred in ascribing too little to dilated bronchi and too much to cavities. But it is difficult to see how, in circumstances resembling those of the case detailed, this error could with certainty be avoided. For it is plain that several dilated bronchi containing fluid, and lying close together, could readily, during respiration, give rise to the phenomena supposed to be characteristic of cavities. And if, furthermore, one assumes, what was here the fact, that lung tissue was present in the sputum, any reasonable doubt as to their existence would seem impossible. And it was so. Nevertheless, if, in any case with evidence of disease at the base of the lung and none at the apex, the expectoration resembled in quantity and character that just described, one

might confidently refer it rather to dilatations of the bronchi than to cavities in the lung. Of course, it must not be forgotten that the discrete cottony lumps of expectoration, opaque at the centre and flocculent at the circumference, supposed to be characteristic of cavities, do occasionally come from globular bronchial dilatations. But in the latter case, though the sputum may contain shreds and fragments of elastic tissue, it never contains the elastic areolæ of the pulmonary alveoli: sputum coming from a cavity always does. And now arise the very interesting and important questions: What were the origin and nature of our patient's malady? What the order of events that occurred in its progress? To the first question it seems to us there are but two tenable answers: one, that the local lung disease was the result of an ordinary inflammation; the other, that it was set agoing by the transference of morbid matters from the diseased testicle to the lung.(b) It is admitted that a pleuro-pneumonia of the right lung would account for all the phenomena of the case. The exudation resulting from such an attack, remaining unabsorbed, would contract and give rise to dilatation and chronic inflammation of the bronchi. The bronchial secretion, incapable, from the circumstances of the case, of being discharged as soon as produced, would, sooner or later, undergo putrefactive changes. *Portions of septic matter long retained in contact with a living surface would become absorbed, and would soon, as we see from experiments in animals, give rise to secondary deposits in the other lung, to ulcerations in the bowels, to clottings in vessels, and to poisoning of the blood.* All this is admitted as likely to have followed an attack of pleuro-pneumonia, or even of bronchitis; but then there was no evidence of the occurrence of either the one or the other. The patient was not subject to colds; his disease was not preceded or accompanied at its commencement by rigors; its beginning was not sudden, but insidious. If you still say that the origin was inflammatory, but that the inflammation was latent, or from the beginning chronic, we reply that by itself that is an unmeaning explanation. On the other hand, it might be answered that our patient's lung disease was set agoing by the transference of diseased matters from the testicle, and subsequently from the tonsil, to the lung. One can readily conceive—for experiment has demonstrated the truth of the conception—that septic or other matters may have passed from the testicle and tonsil to the lung, and there produced deposits and, either coincidently or consecutively, pleural inflammation. One may further conceive that, our patient being in ill-health from long confinement and the abuse of mercury, neither these deposits nor the products of the accompanying inflammation were absorbed, and that, persisting, they contracted and gave rise to dilatation of the bronchi and all the other phenomena already described. Now this view of the case is supported by the results of experiments upon animals, by a right interpretation of certain reciprocal relations of diseased states in man, and by the history of the patient whose case is being discussed. It is supported by the results of experiments upon animals. In May, 1866, one of us (Dr. Andrew Clark) (c) proved that certain dead or dying animal products inserted beneath the skin of a rabbit produced deposits in the lung, and afterwards in other parts of the body; that when the animal was healthy these deposits were reabsorbed; and that when it was unhealthy, or, being healthy, kept in conditions unfavourable to health, these deposits were not reabsorbed, but excited secondary deposits and disintegrations. It is supported by a right interpretation of the known reciprocal relations of diseased states in man. Of these relations bearing upon pulmonary disease there are numerous illustrations, but we shall for the present content ourselves with two. The first is the relation of fistula in ano to phthisis. Some observers consider the former a consequence of the latter, and others consider the two affections either as mere coincidences, or as different expressions of the same constitutional state. We, however, differ from both, and believe that in the majority of cases the perirectal abscess is the direct cause of the pulmonary malady which so commonly accompanies it. This belief, suggested by the results of experiments upon animals, receives confirmation from clinical inquiry. In the greater number of cases in which pulmonary disease and fistula concur, it will be found that the latter precedes the former, *and it is probable that the aggravation of chest symptoms sometimes following operation is due to fresh absorption from cut surfaces.* The second illustration may be drawn from the history of acute inflammation of the lung. Sometimes, even in a healthy man, the exudation is not wholly absorbed. Lumps remain scattered in various parts of the lung, and at last undergo degeneration, and this degenerative process no sooner sets in than the blood becomes secondarily affected, and fresh deposits are formed, first in the opposite lung and then in other parts of the body. It is supported by the history of the case under discussion. The patient enjoyed good health till he had an orchitis following gonorrhœa. The testicle had not recovered when he caught a chancre, and was treated with mercury. Then it was that his testicle became re-enlarged, and he slipped insidiously into bad health; then it was that, without exposure to cold, the occurrence of rigor, or the intervention of any other condition but that of suppurating tonsils, he contracted a cough, and by-and-by began to expectorate, and at last showed signs of acute pleuritic inflammation, without any evidence of the presence of tubercular disease. From these and other considerations we are of opinion that our patient's malady took its start from deposits and secondary inflammation excited in the lung by the presence of septic or other matters carried in the first instance from the diseased testicle, and afterwards from the cheesy tonsils. Upon this theory of the case, the order of events in its progress seems to be as follows:—Cheesy deposits in testicle and tonsils; transference of matters to lung, giving rise to deposits therein; secondary pleuritic inflammation and spreading of fibroid tissue into pulmonary parenchyma; contraction of lung; consequent dilatation of bronchial tubes; disintegration of deposits and decomposition of bronchial contents; absorption of septic matter into the blood, secondary infection, blood-clotting, and death. The case recorded affords another proof of the assertion elsewhere made by Dr. Andrew Clark, that neither hæmoptysis nor diarrhœa occurring together or separately in a case of pulmonary disease is conclusive as to its tubercular character. Cases of basic lung disease resembling the one above described, and arising from bronchitis, pneumonia, pleurisy, hepatic disease, or embolism, are not uncommon; but whatever their origin, the characters which, if not arrested, they ultimately assume are much the same. So also is their clinical history and its issue. Slow in their natural progress, which, by the judicious assistance of art, may be made slower still, they almost all, however, end at last in death. This is a sad conclusion, but it is one which experience compels us to believe, and truth will not permit us to conceal.

(b) Frequently reinforced by a like transference from the tonsils to the lung.

(c) Lectures delivered at the Royal College of Physicians.

A CASE OF SUBCLAVICULAR DISLOCATION OF THE HUMERUS.

REDUCTION AFTER EIGHT YEARS AND THREE MONTHS BY MANIPULATION—RECOVERY OF WHOLE USE OF ARM.

By A. S. BOSTOCK, M.R.C.S.

Robert B., aged 36, applied to me for advice about a cold he had, accompanied by a cough, which he said he had caught after getting wet through fourteen days previously. I told him to strip his clothes off, that I might have an opportunity of ausculting him, which I did, and then noticed he had an abnormal appearance of his left shoulder-joint. I then examined the joint, and found the head of the humerus in the subclavicular space, lying on the second and third ribs, the clavicle raised, and the scapula depressed by the deltoid muscle (which worked round the back of the shoulder, and made the humerus and scapula act simultaneously); so when at work he could not do any over-hand work with that hand, and when at rest in bed he was obliged to extend his arm at a right angle to his body before he could place his scapula flat in order to lie on that side. There was a difference of half an inch in the length of the two arms, and the muscular development of the left upper arm was equal to the right, and that of the left fore-arm greater than that of the right.

History.—Is a brickmaker, and bellringer in his parish church, and it was at the latter occupation he met with his accident (which he said had come on from the rheumatics); but on inquiry I found that eight years ago last Christmas-day he was bellringing, and his bell being out of order, instead of going quite up, it went half-way up, then came down, and went up with a sharp jerk, taking his left hand, which was entwined in the rope, up with it; after which he

fell on his knees on the floor of the belfry and almost fainted. After this, as was natural, his shoulder was stiff, and he had pain down his arm and up his neck. He could neither put his arm on his head nor clasp his hands behind his back. A year after the accident, he sought advice, and was unrelieved. Two years ago he had rheumatic fever, and has been quite well since that till I saw him with his cold.

Operation.—Every Surgeon knows the difficulty he has, when examining a patient for injury to the extremities, to persuade the patient to allow him to have the command of the injured limb in order that he may rotate, supinate, flex, or extend at his own discretion. Now, the chief cause which prompted me to try something for this man was his allowing me the free use of his arm for my examination. After examining him, I told him what was the matter with his arm, and that I would do all in my power for him, when he said "You may do what you like; the pain has been most excruciating this last fortnight." He refused chloroform, so I laid him flat on his back on the floor, and with one hand I held the scapula steady, and rotated the arm with the other. This I continued for about fifteen minutes, at which time I found that I could rotate the humerus without moving the scapula. Next I got a jack or round towel, and passed it twice round the shoulder-joint, which was held for me whilst I made extension firmly and gently upwards, relaxing my hold when most extended, and bringing the forearm across the chest; this I did three successive times, and then I removed the towel and had the shoulder grasped firmly by the hand, with the palm of the hand on the outside of the shoulder pressing on the scapula, with the fingers on the head of the humerus. Then I made extension and brought the arm across the chest, and the head of the bone slipped into its place with a characteristic snap. The patient has free use of the arm, and can work as well as ever.

Horsham, Sussex.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SYPHILITIC AFFECTIONS OF THE NERVOUS SYSTEM.

Several years ago we published a series of cases illustrating the effects of syphilis on the nervous system, and from time to time we have recorded important cases of a similar kind. The subject is now (thanks especially to Reade, of Belfast, Todd, Russell, of Birmingham, Wilks, Bristowe, Hutchinson, and others in this country) an old one, and our present object is to speak of the question as it stands from a clinical point of view. We can only do this briefly, but we trust clearly. It is scarcely necessary to report many cases. We add a few, and refer to others, and especially to the series published in these pages in 1861. A most valuable paper on visceral syphilis, by Dr. Moxon, will be found in the last volume of *Guy's Reports*.

When a young healthily built patient suffering from local palsy or convulsion has a node on his head or his shin, a well marked coppery rash, or a hole in his palate, the diagnosis is, with rare exceptions, ready-made, so far as the *nature* of the internal lesion causing the palsy or spasm is concerned. These easy cases furnish us with hints as to the sort of nervous symptoms which syphilis *affects* to produce, and from the style of the paralytic symptoms a patient who presents no ordinary evidence of syphilis has, our diagnosis as to the nature as well as to the seat of the disease is much helped.

This kind of knowledge is most important, as some patients —*e.g.*, soldiers looking out for a pension—will deny having had syphilis. Then it is very necessary, when we are consulted by a married woman, to be able to find out to what her nervous ailments are due without putting questions which may lead her to suspect her husband's fidelity. Of course, such evidence as we have mentioned is the best, and we learn a great deal from investigations into the family history of those who are married. But when information from these sources is not forthcoming, we have another kind of investigation to make.

Without denying that syphilis may produce any kind or any series of nervous symptoms, we think the symptoms it most generally produces are:—

(1) Palsies of cranial nerves.
(2) Convulsions, beginning unilaterally.
(3) Hemiplegia.
(4) Paraplegia.

(1) In a young adult, palsy of a cranial nerve should always lead us to investigate for syphilis, and even where the history is denied, it demands treatment by iodide of potassium. With regard to palsies of the cranial nerves, our impression is that the suspicion is greatest when the fifth is involved next the portio dura nerve—especially if there be also complete deafness without discharge from the ear—next the third, then the sixth, and lastly eighth and ninth. If several of the nerves are involved, one after another or at the same time, the suspicion is greater still, and all the more if the palsies be limited to one side. Paralysis of the fifth nerve is rarely seen in Physicians' practice—more frequently at ophthalmic Hospitals. Of course palsy of any nerve-trunk might be due to syphilis—*e.g.*, of the ulnar or median—but, to the best of our knowledge, the spinal nerves are rarely affected.

[Optic neuritis, occurring alone, is not usually the result of syphilis. Amaurosis from optic neuritis (the indirect result, as it usually is, of some adventitious product within the cranium), and amaurosis from disease actually involving the optic nerves, are two very different things.]

There are cases—especially of palsy of the third or sixth nerve—in which we cannot come to any diagnosis as to the nature of the lesion, for the simple reason that there is not enough collateral evidence. In a person past thirty we should think of locomotor ataxy when any one of the ocular nerves is paralysed. But not unfrequently paralysis of one or more of the nerves exists in a patient whose history and condition present no evidence of actual ill-health.

(2) Convulsions of any sort may be due to syphilitic disease of the brain. But syphilis is most frequently associated with fits which begin by spasm in one hand, one foot, or one side of the face, and which are often followed by hemiplegia for a varying time. It is not implied that this kind of seizure is at all characteristic of syphilis. It follows blows on one side of the head, and occurs after complete or partial recovery from hemiplegia, frequently due to embolism, and is met with in young people—children or adults—who seem to be otherwise very healthy indeed. It is, however, to be earnestly insisted on that in such cases the possibility of syphilis should be very carefully considered. It is important that the eyes of the patient should be carefully examined for optic neuritis, as it is an occasional complication. The kind of seizure alone, or optic neuritis alone, has little value in diagnosis of the nature of the intracranial disease, but together they are very suspicious —we do not say characteristic—of syphilitic disease of the brain. If, we repeat, a young person has this kind of convulsion after or along with severe continued pain in the head, above all with optic neuritis, syphilis is probable, and iodides ought to be given as well as the bromide.

(3) Hemiplegia may be due "to anything." There are three ways in which syphilis produces it:—(*a*) When the palsy follows a convulsion, it is, as already said, frequently due to syphilitic disease of the brain. (*b*) Sometimes a syphilitic artery(a) becomes blocked (Bristowe and Wilks), and when this is the middle cerebral, hemiplegia results. There need be no convulsion and no loss of consciousness. (*c*) A nodule may grow in the motor tract, and then hemiplegia may come on slowly. Or putting the above clinically—*i.e.*, as we see the cases—(*a*) there is hemiplegia after a convulsion—the epileptic hemiplegia of Dr. Todd; (*b*) hemiplegia coming on without convulsion and without loss of consciousness; (*c*) very gradual hemiplegia, say at its worst in a week or a fortnight.

Now, we cannot tell by the mode of onset, nor by the paralytic condition, nor by the progress of the symptom, whether syphilis is to blame or not in any one of these three cases. (*a*) might be due to many kinds of disease of the cerebral hemisphere; (*b*) might be due to simple softening, or to a small clot, or to plugging of the middle cerebral artery from heart disease; (*c*) might be owing to a tumour of the hemisphere or in the higher part of the motor tract, or the patient might be pretending. The reader will bear in mind that we

(a) For some account of syphilitic disease of the cerebral arteries, see a case by Wilks, *Guy's Hospital Reports*, 1860; a case by Hughlings Jackson, *Lancet*, October 27, 1860; two by the same author, *Lond. Hosp. Rep.* vol. iv. 1868; and a case by Moxon, *Guy's Hosp. Rep.* 1867 8. Dr Bristowe's paper, in which he advocates the opinion that syphilis leads to plugging of the cerebral arteries, will be found in *Path. Soc. Trans.* 1859, vol. x.

are speaking of cases in which the diagnosis is not made for us by the presence of unmistakably syphilitic symptoms.

(1) The diagnosis of the nature of the lesion causing paraplegia is never easy, and excepting, of course, there be other evidence of syphilis in the patient, it is very difficult to tell whether it be owing to syphilis or not. When it is preceded by localised numbness—for instance, in the region of one or more intercostal nerves—or by one or more patches of numbness in the legs, or by pains shooting into the toes, or if one leg suffer very much more than the other, local disease within the spinal canal is probable. Thus we get a step towards the diagnosis of syphilis, and we should, especially if the patient be young, give iodide of potassium. Yet the intra-spinal disease might be tumour.

It is the *disorderly grouping* of certain symptoms and the *disorderly succession* of certain symptoms which are most characteristic of syphilis. We have spoken of palsies of several cranial nerves. If a young patient have palsy of any one cranial nerve (excluding nerves of special sense), and at a distinct time convulsion, hemiplegia, or paraplegia, syphilis is very probable. Most generally palsy of any motor cranial nerve followed by any other symptom is very suspicious of syphilis.

Yet palsy of a cranial nerve and subsequent hemiplegia might be due to a tumour or to a cerebral aneurism. But in these cases there would be some kind of order. In tumour there is usually but one lesion, in syphilis there are frequently several. In tumour the paralysis of the cranial nerve would be on the side of the lesion and on the side opposite the hemiplegia. We should meet with recognised combinations, such as of paralysis of the third on one side and hemiplegia on the other; of the fifth, or of the facial, or of the facial and sixth on one side, and the arm and leg on the other.

A Succession of symptoms might be due to malignant disease, but the greater rapidity of sequence usually puts us right in these cases.

In chronic Bright's disease we may meet with a Succession of nervous symptoms from clot. Here the usual presence of albumen in the urine will guide us. Besides, although we meet with local palsies from clot, we usually find that these are owing to central disease, as they are not of parts supplied by nerve trunks. The face may be weakened on one side, but the whole of the muscles supplied by the portio dura nerve are not paralysed; the patient may for a while talk thickly and swallow badly, but clot rarely causes decided palsy of one side of the tongue, such as disease of the trunk of the lingual nerve would produce. There are other obvious differences.

It is frequently held that when we have diagnosed syphilis, we can by energetic treatment easily rid our patient of his symptoms. This view is not countenanced by the pathology of cases of syphilitic affection of the nervous system, and certainly not by experience. To avoid disappointment, let us see how we stand. To speak of cases of "syphilitic paralysis" cured by iodides or mercurials is of little use. We have rather to think of the very tissue changes in which these drugs help. If there be *recently* effused "lymph," they will absorb it, and this probably is the only thing these drugs will do. Let us look at the several symptoms in detail. Of "curing" syphilis we here say nothing; we speak merely of getting rid of symptoms, and inferentially of stopping or reversing changes in connective tissue. The numbers of the following paragraphs refer to the numbers affixed to the paragraphs on diagnosis.

(1) If a patient have recent symptoms of any sort from the direct action of syphilitic changes, we can usually get rid of them by iodides, and thus we quickly cure recent palsies of cranial nerves (we do not include amaurosis from optic neuritis) when we see the patient a week, or perhaps a fortnight, after the palsies set in. The probability is that we rid the nerve-trunk of lymph squeezing the nerve-fibres, just as we rid the iris of lymph in a case of iritis. We do no good to old palsies of cranial nerves from syphilis.

We must not be understood to imply that rapid recovery under the use of iodide of potassium is decisive evidence of syphilis.

(2) There is no evidence to show that the change in nerve tissue on which the occasional spasm *directly* depends is syphilitic. The fits do not depend on the lumps we discover in the brain post-mortem, but on some minuter secondary (?) change in nerve-tissue. It is not denied that patients who have convulsions from syphilis of the kind we mention keep free for a long time—viz., many months—from severe fits after anti-syphilitic treatment, but the same happens when the fits are due to injuries of the head. It will, we believe, be found that the bromide has more influence than the iodide in keeping off fits in patients whose fits are the result of syphilis.

(3) It needs no remark that the three kinds of syphilitic hemiplegia are three different things. It is at least very doubtful whether in (*b*) any amount of iodide of potassium would rid the middle cerebral of its plug. It is not denied that recovery will follow in some cases. We know that patients recover the use of their limbs after plugging of a large branch of the middle cerebral artery as well as they do after a small clot in the corpus striatum. But it is scarcely likely that the iodide has anything to do with the recovery. (*a*) Epileptic hemiplegia will pass off by itself in many cases, usually to come on again after an interval. In (*c*) we may perhaps do more by treatment. But as we frequently cannot be quite certain of our diagnosis, we should give iodides in "syphilitic hemiplegia," whatever its immediate causation may be. This apparently routine treatment is, as we shall further remark, more exact than appears.

Whether iodide of potassium does good in that general condition which at its worst goes by the name of Cerebral Fever (Trousseau), is uncertain. Of course, this condition is not to be confounded with the status epilepticus—a far less important thing—in which a patient lies comatose after frequent and severe convulsions. There is, to the best of our knowledge, no evidence to show that cerebral fever, or convulsion, optic neuritis, etc., are themselves directly dependent on syphilitic changes. They will all *occur with* syphilitic disease of the brain, as they occur with tumours, etc.

(4) Of paraplegia we have little to say. Slowly coming-on palsy of the legs, especially if it be chiefly of one leg, demands treatment by iodides.

Although we have confessed to holding less faith in the value of treatment in these cases than is common, we think that whenever a patient has a symptom warning us that syphilis has begun to damage the nervous system, we should give iodide freely and for a long time. This is apparently in contradiction to what has gone before. It is most important to look beyond the mere annoying disabling symptom. We learn from post-mortem examinations of those who have died with syphilitic disease of the nervous system that in many instances there is wide-spread disease of the brain far beyond the production of the known symptoms—we mean more than accounts for the existing hemiplegia or convulsions. We know that in the brain there are large tracts—for instance, the posterior lobe—which may be much damaged in many ways without necessarily causing symptoms, or, at all events, localising symptoms, such as hemiplegia, etc. Therefore, when a patient comes to us for, let us instance, palsy of the portio dura nerve, he may have disease in the cerebral hemisphere. More than this: in cases where the paralytic symptoms have been limited to one side, the brain has been almost equally diseased on both sides. This has been not only of the pia mater at the base, but of the larger arterial trunks. Many blood-vessels may be diseased, although one or two only may be blocked up. Syphilitic disease of the cerebral arteries causes at least no striking symptoms until they become blocked up. So, then, when a patient has one local symptom presumably from syphilis, we should give him the iodide of potassium even if recovery from that symptom be hopeless, or continue it long after he has got rid of this symptom, say for six months. The probability is, however, that a patient who "feels well"—"never in better health in his life"—will not go on taking the medicine, although, when he is feeling well, his cerebral arteries may be slowly thickening. We should then urge that on the slightest new symptom, especially pain in the head, he should return to the drug. Of course, when we are treating a patient for, let us say, syphilitic palsy of a cranial nerve with large doses of the iodide of potassium, he may have sudden hemiplegia, since it is very likely that his cerebral arteries are diseased. Now many of our patients know much about drugs, and would perhaps blame this potent remedy for the new symptom, especially as many of these patients feel to be in good general health. We must submit to this misfortune. It is our duty to give the iodide of potassium in cases of syphilitic diseases of the nervous system, independently of any selfish consideration for our own reputation.

We have said nothing as to the dose of the iodide of potassium. We have seen large doses given in such cases, and some give as much as a scruple three times a day. We observe from a report of a clinical lecture in a contemporary, that Mr. Paget rarely finds it necessary to give so much as ten grains three times a day in cases of syphilis. Notwithstanding our great respect for so high an authority, our impression

is that, in cases of syphilitic disease of the nervous system, the iodide ought to be given in large doses, and that it should be continued for months after the patient seems to be well, or after it is clear that the particular symptom he consults us for will not yield to the drug.

With regard to the mercurial treatment of cases of the sort we are speaking of, there need, we think, be no hesitation in putting the patient on a course of mercury, if he have acute changes in his pia mater, any more than if he came for similar changes in the choroid, the retinal pia mater. But the difficulty is this—that in the latter we are certain of the existence of early and definite changes; in the former we can only infer their existence. The probability is that the "lumps" we sometimes find in the cerebral hemisphere are the relics of past local inflammations, analogous to what we see in iritis, and if we could interfere in the early stage it would be very desirable to do so energetically. Our impression is that we rarely see a patient for the earliest changes which syphilis produces in the brain. During this earliest change the chief symptoms would, we presume, be severe pain in the head. (There is, by the way, no symptom which, from a utilitarian point of view, demands so much attention as severe pain in the head does.) If mercury is to be given, this is the best time for it. We have urged that the symptoms in cases of "syphilitic affections of the nervous system" are frequently not themselves due to syphilis directly. They are *post-syphilitic* in time. For instance, when a patient has fits from syphilitic disease—say a mass in his right cerebral hemisphere—the probability is that the mass was there some time before the secondary changes existed, on which the occasional convulsion depends. It is not likely that we can by drugs reverse the effects of long-past "pia matritis" any more than we could those of old iritis. We do not think, then, that we have warrant for the exhibition of mercury for the cure of "syphilitic epilepsy." We have to treat secondary changes diffused from a foreign body, and the fact that this foreign body is a syphilitic lump is not of much importance, so far as the production of these secondary changes goes. The best warrant, we think, for energetic treatment is severe localised pain in the head and recent palsies of ocular nerves.

THE LONDON HOSPITAL.

PALSY OF THE FIFTH, SIXTH, AND SEVENTH NERVES—SYPHILIS.

(Under the care of Dr RAMSKILL.)

The following seems to be a clear case of syphilitic disease, and is the fourth of the kind we have seen in this Hospital during the last two years. After anti-syphilitic treatment, the patient at first improved, but, as stated in the report, he relapsed. It may seem that we are reporting the case prematurely, but there are good reasons for giving the particulars now. Its further progress will be recorded:—

R. S., aged 27, admited February 11, 1868. He has been a stoker in the navy, and has been rather intemperate. Six years ago had a chancre and suppurating bubo in each groin, but no rash or sore throat. Four months previous to admission he caught cold, he says, from sitting in a draught while hot. As the cold was getting better, he had a sharp shooting pain in the left eyeball, very soon followed by redness of conjunctiva and intolerance of light, with dimness of sight; his face became drawn, and he got deaf on same side. On admission he was anæmic; the face was drawn to the right, tongue protruded to the left, conjunctiva of the left eye red and granular, and perfectly insensible, and the outer edge of the cornea was ulcerated. The pupil was contracted, and there was some drooping of left upper lid, but this was apparently due to swelling. He could not close this eye. Sensibility of the left side of the face was generally impaired, and especially below the angle of the mouth. The masseter and temporal muscles of the same side were atrophied. Internal squint of left eye due to palsy of the external rectus. Deafness complete on left side. There was no paralysis of limbs whatever, and no difficulty of speech or of swallowing. Food, however, accumulated in the left side of his mouth. The taste, as ascertained by bitter and sweet things, was found to be impaired on the left side of his tongue. Since admission his eye threatened to suppurate, but after some weeks it has quite closed up again, with the exception of a little opacity in left edge of cornea.

Recently (May 11) headache has come on again, and has not ceased. He now wanders at night, and whenever he sleeps; refuses to take anything, and for the last two days has passed his urine involuntarily. He is much worse, and is not likely to recover.

May 13.—Right optic disc is swollen. Veins large, irregular, and partly obscured. Disc raised, reddish-white, bright, and smoothed off into fundus. Arteries large, dimly traceable. Left disc only hastily caught. Veins large, and appearances believed to be like those of the right disc.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

PROPTOSIS AND COMPLETE LOSS OF SIGHT IN ONE EYE—TERTIARY SYPHILIS—RECOVERY OF SIGHT UNDER TREATMENT.

(Under the care of Mr. HUTCHINSON.)

A very interesting case illustrative of one of the ways in which syphilis may bring about paralysis of a nerve has recently been under care at Moorfields. A man, aged 33, was admitted nearly blind of the left eye. He could not find the window, and had only a dim perception of a shadow when the hand was passed across his left eye. His right eye was perfect.

It was noticed that the left eyeball was more prominent than the other. The prominence was decided, and there appeared reason to think that it was due to some deposit, inflammatory or malignant, in the apex of the orbit. The eyelids were slightly œdematous, and there was also some swelling on the temporal region. The man gave the history of syphilis seven years ago. Ever since he had been liable at times to a tubercular rash, and at the present there were a few characteristic tubercles on the temples. On ophthalmoscopic examination it was found that the loss of sight was due to neuritis of the optic nerve. The optic disc was blurred by the deposit of lymph, and its edges concealed. The inflammation did not extend widely around, and the retina, excepting close to the edges of the disc, was quite clear.

Acting upon the syphilitic hypothesis, Mr. Hutchinson at once prescribed iodide of potassium in full doses, and with the result that the pain which the man had suffered quickly abated, the eye began to recede into the orbit, and the vision to improve.

After four weeks of treatment, sight was so far restored that the patient could read No. 12 with the affected eye, and a fortnight later he read No. 4.

The case is important as an instance of optic neuritis on one side only, a condition which is extremely infrequent. In all probability the neuritis was caused by the pressure of the inflammatory effusions on the trunk of the nerve. In most of our cases of optic neuritis the exciting cause is within the cranium; here it was probably in the orbit, and hence the non-occurrence of symmetry. It should be stated, however, as seeming to imply intra-cranial disease as well as orbital, that, about a month after the treatment was commenced, the man had a fit. The fit was one of those so common in cases of syphilitic disease of the nervous centres. He fell down, lost consciousness for a short time, and, when he recovered, found that he could not use his tongue nor close his mouth. These consequences soon passed off, but on several subsequent occasions for short periods he again lost power of moving his tongue. During his attacks he complained that his tongue felt numb, and as if much too large for his mouth. The attacks are also attended by a sensation of shortness of breath. In spite of these he still keeps at work. He has been advised to persevere for long in the use of the iodide of potassium.

(To be continued.)

Medical Charities.—The late Mr. Charles Fraser, of Lancaster-gate, has bequeathed £100 each to King's College and St. Mary's Hospitals; and Mr. William Dangar, Cheltenham, Gloucestershire, has bequeathed £500 to the Sydney Infirmary, £290 each to the Scone and Singleton Hospitals, £100 each to the Cheltenham General Dispensary, Maitland Hospital, Bodmin Dispensary, and Royal Albert Hospital, Devonport.

*

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Medical Times and Gazette.

SATURDAY, MAY 23, 1868.

DISCIPLINE AT OXFORD.

Our readers must have heard of the two fatal accidents which happened last week at Oxford. In the one case an undergraduate, clambering in the dead of night from one second-floor window to another, fell, and was killed on the spot; in the other an undergraduate died by the discharge of a pistol which was being handed to him muzzle foremost by a fellow-student whilst in a boat on the river. We have no wish to say one word that shall inflict pain on the friends and survivors of either of the subjects of these calamities; but we cannot help observing that, when places of education for young men are spoken of, Oxford is praised for its "discipline" and for its gentlemanly "associations." A clergyman, for instance, who is a "mere King's Colleger," or a London Medical student, is spoken of as a very inferior being to one who has had the advantage of the "discipline" and "associations" of the ancient Universities. If the unfortunate deceased had been London Medical students, we should have had plenty of comments in the newspapers on their disorder and recklessness and want of discipline, whilst the advocates of College life would have "improved" the occasion by showing the dangers of lodgings for young men. But what kind of discipline can that be which permits of such a tipsy escapade in the middle of the night as that which proved fatal in the former of these cases, or such a reckless use of firearms as is the present pest of the University? Is it the discipline of home, of the religious society, or even of the barrack, that is maintained? In what well-ordered institution could a young man be clambering out of window at two in the morning? In what gentlemanly home would the reckless use of firearms be permitted? One of the essentials of an old-fashioned gentlemanly education was instruction in the use of arms—in the habit of dealing with them without danger to the user or to bystanders. But what are the habits and early "associations" of men who use pistols as Oxford undergraduates now do, practising in their rooms, and using their doors as targets, even shooting into the windows of a room which they believe vacant—shooting whilst out on the river, and handing a pistol by the muzzle, or pointing it in jest? We have heard of a bullet fired at a partition passing close to a scout's head. For years this insane misuse of firearms has been a notorious custom. What misery might have been saved if the same amount of discipline were really enforced at Oxford as every gentleman with grown-up sons enforces in his own house!

FAT FROM FLESH.

If anything were wanting to show the imperfect condition of our knowledge even of those sciences in which rational Medicine is presumed to have its foundation, the results of Professor Pettenkofer's recent inquiries would supply all that the most determined sceptic could desire. To be told, after all we have learned of physiological chemistry, that fats can be formed in the body as the result of a chemical metamorphosis of pure albuminoid matter, is enough to shake the faith of even the most orthodox. Yet this is what Herr Pettenkofer announces as the conclusion arrived at from a long series of practical experiments and scientific reasonings. Doubtless there are many who will look upon the new doctrine as one without a shadow of probability; and we confess it would be difficult to find fault with such. But a little reflection, and a consideration of the phenomena involved in the production of that well-known and remarkable substance *adipocere* (or bog-butter) will tend to clear a way to the admission of the startling proposition which comes to us from the Royal Laboratory of Munich.

Herren Voit and Pettenkofer, in publishing a result which must materially modify the laws of physiology and hygiene, urge as a further illustration of what they have demonstrated as a scientific problem, the familiar instances of the sucking-pig and the wax of the common beehive. Here, they say, we have the existence of definite fatty substances, whose quantity is infinitely greater than that contained in the material from which it is obtained. As a mere chemical illustration of the force of their views, they refer to the development of fatty acids in the decomposition of ordinary albumen. These, say the Bavarian chemists, are striking indications of the possibility of converting albuminous substances into fat, and yet physiologists have overlooked them in their acceptance of a theory of the formation of fat from hydrocarbons—a theory which is absolutely undemonstrable. But as hypothetical argument meets with little favour from practical men, and as the *experimentum crucis* is looked to as the highest test of a sound empiricism, we shall lay before our readers some of the very singular experiments which have been conducted by Professors Pettenkofer and Voit.

The first animals selected for experiment were dogs, and of these some were fed upon pure albumen, and others were submitted to a starchy diet; and what were the results? The dogs fed upon albumen absolutely fattened upon it, and fatty matter was found in their excretions. Those, on the other hand, whose diet had been starchy never fattened at all. A nursing bitch was next selected for experiment. She was fed upon several varieties of food, but was found to form the greatest quantity of fat from pure flesh; indeed, when she was fed upon a mixed diet of flesh and hydrocarbons, it was discovered that the quantity of fat and sugar in her milk had sensibly diminished. An objection to the conclusions drawn from these inquiries—at least so far as they refer to man—might be found in the fact that carnivorous animals may differ from omnivorous in regard to the physiology of digestion; but this objection would, we apprehend, be more apparent than real.

However, even on this point the opponents of the new hypothesis would be fully met by the experiment we are now about to detail. A milch cow having been set apart for observation, she was watched from hour to hour for a period of a week by Herr Voit's assistants, and the urine having been carefully collected, the results given below were arrived at, and for their accuracy Herr Voit pledges his reputation as a chemist.

"In the course of six days the cow consumed in meal (?) and hay 1407 grammes of nitrogen, and eliminated 1440 grammes in the urine, excrements, and milk, the difference thus corresponding to about 2 per cent. In the 80·6 kilogrammes of hay and the 14·7 kilogrammes of meal there were 2663 grammes of fatty matter, 1044 grammes were found in the excrements, and consequently 1619 grammes were introduced into the circulation. In the urine, weighing 178 kilogrammes, were found 562·4 grammes of nitrogen. If we calculate the quantity of corresponding albumen, and the quantity of carbon contained in this albumen,

we find that the latter is equivalent to 2220 grammes of fat, which it is necessary to reduce to 2120 only, because 4·5 per cent. of the carbon remains united to the oxygen after decomposition of the albumen. The 57·3 kilogrammes of milk contained 1877 grammes of albuminoid substances, 1976 grammes of fat, and 3177 grammes of sugar. The albumen in the body may thus produce 144 grammes of fat more than is found in the milk. Now, the carbon of the sugar-of-milk corresponds to 1670 grammes of fat, whilst the 144 grammes in question, added to the 1619 of the food, make a total of 1763."

The immense difference between the ingested and egested fat show clearly enough that it is not necessary to have recourse to the hydrocarbon theory to account for the development of fat in the body. "Consequently (say the Munich *savants*) it is extremely probable that, even in the herbivora, hydrocarbons do not furnish matter for the formation of fat, but allow of its development by being consumed, and thus supplying what it would otherwise provide for." Whatever may be the ultimate decision as regards these surprising results, one thing is certain—the hypothesis which has been promulgated by Herren Pettenkofer and Voit is one of the highest interest to the physiological chemist, and one which must leave its mark on the physiology and practical Medicine of the future.

DR. RICHARDSON'S TESTIMONIAL.

We must not allow the presentation of the testimonial to Dr. Richardson to pass by without one word of congratulation on our part on the recognition which his labours on behalf of science have received from his contemporaries. Six hundred of his friends, including of course many generous-minded opponents and rivals, come forward to say, You have worked for us; much of your work has partly taken you out of the ordinary line of Professional reward, but we show that we are not ungrateful. This act of recognition does honour to them, not merely as all acts of justice or of generosity are honourable to those who do them, but as showing that they comprehend the cravings of our Professional life, the thirst which every true student feels for a fuller insight into the mysteries of our being—that they are practising Medicine not as men who desire to fill their pockets only, and that they gladly honour a man who snatches time from the mere routine of to-day's Medical practice to solve questions which shall open up the Medicine of the future. All of Dr. Richardson's researches are marked by that union of chemical with physiological lore, and that kind of experimental instinct, which are necessary for investigating the real nature of the phenomena of disease and death, and by unravelling to control them. Such are the characteristics of the researches by which he has endeavoured to substitute the expression of clear physical or chemical changes for the mysterious or metaphysical terms in which the phenomena of disease are obliged to be veiled. For example, to discover the chemical condition of the blood which is present in rheumatic fever as its essential condition; to point out with precision the characters which distinguish the act of dying from concretion of the blood in the heart from other modes of death in acute disease, regard being had of course to the possibility of arresting and undoing the formation of clot; the physical condition of blood which causes opacity of the crystalline lens; to discover the exact nature and *modus operandi* of the zymotic poisons;—such are problems the investigation of which requires an amount of knowledge, of ingenuity, of skill and resource in manipulation which fall to the lot of few men; and when a man possessing these requisites gives them for the use of humanity, they who know the value of the gift do honour to themselves by acknowledging it.

Mr. Paget in his eloquent speech spoke of Dr. Richardson's lecture "On Intermittent Pulse and Palpitation" (a) as one from which he had derived great pleasure and profit. It is one less attractive, perhaps, than some others on a superficial glance, for the subject is more commonplace, and admits less of brilliant experiment and chemical hypothesis than do such subjects as new anæsthetics, or the temporary annihilation of the functions of parts of the nervous centres; yet we may refer to it as a compact specimen of the author's character and method, in its thorough exposition of the matter under research, in the exploration of all possible causes, in the elimination of such as are accidental or irrelevant, and in the thorough practical conclusions deduced. Yet this is but an insignificant fragment of the lore which Dr. Richardson has been freely laying open to his Professional brethren for the last five-and-twenty years.

(a) Published in *Medical Times and Gazette*, January 4 and 18, 1868.

THE WEEK.

TOPICS OF THE DAY.

The detailed accounts of the attempt to assassinate the Duke of Edinburgh which have reached this country add but little to our knowledge of the Surgical details of the case. The amount of shock, which was at first very considerable, induced the Prince's Professional advisers to postpone the removal of the ball until the third day, when it was extracted without difficulty. Amongst the Medical men who hurried to the Prince's assistance were Dr. Watson, Surgeon of H.M.S. *Challenger*, Dr. Powell, Assistant-Surgeon of H.M.S. *Galatea*, and Dr. Wright. The Prince was first conveyed to a tent, where his dress was removed and the injury examined, and was then taken to Government House, where Dr. Young, the Surgeon of the *Galatea*, had been summoned to meet him. This gentleman, as has been already published, with the assistance of Dr. Watson, performed the operation of extraction. The Prince was nursed by two of the trained nurses sent out by Miss Nightingale for the Sydney Infirmary. His recovery seems to have been uninterrupted, and no symptoms of pulmonary implication were ever developed. We are glad to see that the mixed feelings of indignation, sorrow, and thankfulness at the Prince's recovery, which have been universal amongst the colonists, have found relief in the sensible channel of a subscription for a new Hospital, to be called the Alfred Memorial Hospital, for which £30,000 have been already raised.

The recent debate in the House of Lords on the subject of the extension of the Contagious Diseases Act to the civil population of cities and large towns was undoubtedly favourable to the supporters of the movement. It is true that the Duke of Marlborough disclaimed any immediate intention of introducing a Bill on the part of the present Government, and descanted upon the amount of Hospital accommodation which it would require, and the expense it would entail. These he estimated at 500 beds, and £25,000 per annum, for London alone. Considering the benefits which might be expected to accrue to the population, this seems a moderate charge enough when compared with the money wasted on ships which never go to sea, and guns which are never fired. But we protest against the Duke of Somerset's plan of obtaining the greater part of the money by local taxation. To tax the decent people of a district or parish expressly for the maintenance and cure of the prostitutes who may choose to harbour in it is repugnant to every dictate of justice and common sense. If, as we believe, this measure is necessary for the physical well-being of the population, let the means for carrying it into effect be provided out of the Consolidated Fund. With a large number of well-meaning people in England any measure of the kind must be distasteful enough; but to bring the thing to their very doors in the shape of a rate for supporting a Lock Hospital would be simply unendurable. As the matter stands, a Select Committee has been appointed, on the motion of Lord Lifford, to consider the subject. In the meanwhile, it may be hoped that a suggestion thrown out by the Duke of Somerset that the operation of the present Act should be extended to such towns as Liverpool and Dublin, where there is a certain proportion of naval and military population, will

be at once carried into effect. If Government decline to move in the matter, Lord Lifford promises that next year a Bill shall be introduced into one or other of the Houses of Parliament.

Professor Roscoe's third lecture at Apothecaries' Hall was on a very curious and attractive, if not a very useful subject. After giving a sketch of the history of spectrum analysis, in which he gave full credit to our countrymen Melville, Brewster, who invented the monochromatic lamp, Sir J. Herschel, Fox Talbot, and Professor Miller, as pioneers to Bunsen and Kirchoff, he proceeded to the special matter of his lecture, the discovery of the new metals cæsium, rubidium, thallium, and indium. It was in 1860 that Bunsen first saw, in the spectrum given by some alkaline residue of the mineral water of Dürkheim, some lines which he had never observed before. His curiosity was aroused, and he set to work and evaporated forty tons of the water. The result was the discovery of the metals cæsium and rubidium. A ton of the Dürkheim water yields about four grains of chloride of rubidium and three grains of chloride of cæsium. Traces of both metals are also found in the water of Baden-Baden. But they do not always coexist. Vichy water contains cæsium alone, and this metal is found apart from rubidium in the mineral pollux. Rubidium seems widely distributed. It is found in various vegetable substances—in beetroot, tobacco, the ash of the oak, in cocoa, tea, and coffee. But the distribution of these bodies seems to follow laws of which at present we know nothing. In mineral waters they coexist with lithium, but why should plants take up rubidium whilst they exclude lithium and cæsium? Both cæsium and rubidium resemble potassium in so many respects that at first they were only recognised by their spectra. Rubidium is now distinguished by the insolubility of its double chloride with platinum, and cæsium by the difference of its tartrates. The combining numbers of the three metals are also different, but their near relationship is further shown by their isomorphism. The lecturer then demonstrated the violet and red lines of rubidium and the greyish-blue lines of cæsium, and compared them with the spectrum of potassium. Thallium, discovered by Mr. Crookes in 1861, furnishes a brilliant green line. It exists in iron pyrites, and seems allied to lead, but is easily distinguished by the solubility of its sulphate. Its salts are poisonous, and, according to Professor Taylor, resemble lead in their effects. When administered, the metal may be discovered in the liver. Indium, which derives its name from the indigo-coloured lines its spectrum affords, appears in its chemical characters to be intermediate between zinc and iron. After showing the spectra of these very curious bodies, the use and existence of which seem as pretty a puzzle as the globe affords, Dr. Roscoe went on to describe the different forms of spectrum apparatus in use, and ended his lecture by demonstrating the different-coloured lights given off by different gases when heated by means of the electric spark. As on former occasions, the Hall in Blackfriars was full to overflowing, and amongst the audience were many of the leading chemists and professors of the metropolis.

Her Majesty has been pleased to bestow the honour of knighthood on Dr. William Carroll, Lord Mayor of Dublin. The occasion on which the dignity was conferred was the presentation to the Queen of an address from the Corporation of Dublin on the subject of the recent attempt on the life of the Duke of Edinburgh. The ceremony took place on Thursday, May 14.

There must be no more jokes at Scottish poverty. If the Scotch are not so wealthy as the English, at least they know how to give handsomely to a national object. For the rebuilding of the Medical Hospital of the Edinburgh Royal Infirmary 851 subscriptions amounted to £43,102 11s. 6d., or rather more than £50 each. Of these 12 were for £1000, and 142 for sums of £100 and upwards.

Dr. Wilson Fox's lecture, delivered on Friday at the Royal College of Physicians, of which we elsewhere publish a full abstract, is valuable as confirming the results obtained by Dr. Sanderson. But what is now wanted is evidently experiments on animals higher in the mammalian scale than rodentia. If these experiments are of any value to prove the inoculability of tubercle, they equally prove that many of the proceedings to which mankind are frequently subjected may give rise to tuberculous depositions in internal organs. If the fact that inoculating a guinea-pig with tubercle or vaccine virus will equally induce tubercle in the animal be allowed to throw any light upon the pathology of tubercle in man, it must claim an equal bearing on the propriety of indiscriminate vaccination in man. But we protest against conclusions being drawn from animals so low in the scale. Experiments on dogs would undoubtedly have more weight. Nevertheless, we are sceptical as to the value of comparative pathology when we recollect the influence of race as a modifier of disease.

A case has just been decided in the County Court at Liverpool which, if it holds good in law—which we very much doubt—has a very important bearing on Medical practice. A Mr. George Johnstone, a Surgeon, sued one Thomas Dawson for the sum of six shillings for Medical attendance and Medicine. The defence was that Mr. Johnstone's brother, who was Mr. Johnstone's unqualified assistant, had attended instead of Mr. Johnstone, and that as the defendant did not accept Mr. Johnstone's brother's services, he was therefore not indebted. The facts were that Mr. Johnstone was from home at the time he was sent for; his brother, who was not qualified, attended for him, and prescribed for the defendant's child. The child undoubtedly took some of the medicine, as the defendant asserted that in consequence it was attacked with convulsions. Mr. Johnstone's brother called in Dr. Fisher, who also attended the child on behalf of Mr. Johnstone. The child ultimately died, and the father refused to pay, on the ground that he did not accept Mr. Johnstone's assistant's services, and that he did not send for Dr. Fisher. The judge decided for the defendant. But we must say we doubt the legality of his decision. The defendant evidently did accept the services of Mr. Johnstone's assistant, or the child would not have taken the medicine which was said to have produced convulsions. With regard to the qualification it is certainly the first time that it has been decided that a Medical man cannot recover for the time and labour of an unqualified assistant; whilst it has been ruled by one of the judges that a Medical man who is not legally qualified by registration, if he be in partnership with one who is legally qualified, can recover in the name of the firm.

The Liberal party in the University of Edinburgh are intending to propose Mr. Gladstone as the successor of Lord Brougham in the Chancellorship of the University.

We regret to state that the Admiralty have not as yet interfered in the case of Dr. Stirling, who was sent home from the Cape of Good Hope by Commodore Randolph, commanding on that station. We have already stated the facts of the case, and shall not now reiterate them. We believe that Dr. Stirling's treatment by Commodore Randolph was unwarranted by any rules of the service, and we know that it has produced a universal feeling of indignation throughout the Medical Service of the Navy. We should hardly think that many fresh candidates for appointment in that service will offer themselves whilst the matter is unredressed.

The last meeting of the session of the Pathological Society took place on Tuesday. It was, as usual, a good one, but the most animated discussion took place upon the last specimen exhibited, one of alleged chronic perforation of the stomach. At the end of the discussion, Mr. Simon, the President, rose, and quoting Lord Chesterfield's maxim, "always to quit a company after saying a good thing, that you may leave a good impression," said that he thought no more favourable moment for separation could be chosen. His closing speech was

characteristically neat. Dr. Charlton Bastian exhibited the passage of white corpuscles through the veins of the inflamed omentum of the frog. Ten specimens remained unexhibited, but their owners were consoled by their being taken as exhibited and accepted for publication in the *Transactions*. The Society, under Mr. Simon's presidency, has had uninterrupted success. Never have its meetings been better attended, or the business of greater interest.

An inquest has lately been held by Dr. Lankester on the body of a child who died during an epileptic fit, which was attributed by the Surgeon who made the post-mortem examination to the presence of a pin which had transfixed the coats of the stomach and entered the liver. The head of the pin was still in the stomach; the liver was adherent. The child had been ailing for a year and a half, had been subject to convulsions, and had complained of pain in the stomach and right side. The pin was said to have been swallowed about two years before.

Those of our readers who have read Professor Phillips's delightful works on geology, or who have attended his lectures, will be glad to notice that he has been elected Honorary Fellow of Magdalen College, Oxford.

THE BIRMINGHAM LYING-IN HOSPITAL.

At a special meeting of governors and subscribers of this charity, held on Tuesday last, it was resolved to abolish the indoor department and to substitute for it the system of "outdoor midwifery." The step which the governors have taken is a very important, and, in our opinion, a wise and salutary one. According to the new plan, the patients will be attended at their own homes, in the midst of home comforts and friends —no mean auxiliaries in promoting a rapid convalescence, and which it is impossible for lying-in Hospitals to supply. What is of more vital importance, too, is, they will run less risk of being prostrated by those diseases which are the curse of the lying-in chamber, and which are mainly evoked when puerperal women are crowded together in obstetric Hospitals.

ABYSSINIA.

At the engagement on April 10, when our army was attacked by King Theodore's, about nine miles from Magdala, one officer and nineteen men were wounded, and during the bombardment and final assault on the fortress one officer and nine men were wounded. The officers were Captain Roberts, of the 4th Regiment, and Major Pritchard, of the Engineers. No detailed accounts have yet been received, but the injuries are believed to have been slight. We learn that on board one of the Hospital ships the number of admissions from all causes for the quarter ending March 31 was 179. Two deaths from dysentery occurred, one of the fatal cases being that of a civilian, in whom dysentery was followed by multiple metastatic abscesses of the liver, by which that organ was nearly destroyed. The diseases have been chiefly intermittent and remittent fevers, dysentery, and hepatic disease, the tendency to the latter being very marked. The heat between decks in the Hospital ships was, of course, very great, but the atmosphere throughout was kept wholesome and pure. We have also been informed that the bread supplied in the Hospital ships at Zoulla was particularly good, owing to the supply of Trieste flour obtained by the commissariat. The hops sent from this country not having turned out satisfactorily, it was fortunate that the Indian commissariat on shore was able to supply yeast.

We regret to hear of the deaths of two of the Medical officers of the British service in Abyssinia—viz., Staff Assistant-Surgeons John Collins, M.D., and John E. Stewart, M.D. The former joined the expedition from this country, and the latter from Bombay.

THE NEW PRINCIPAL OF KING'S COLLEGE.

The Council of King's College, after lengthened deliberation, have resolved to appoint the Rev. Dr. Barry, the present head master of Cheltenham College, to be their future Principal. We may congratulate the Council on having been able to obtain the services of a gentleman so admirably qualified as Dr. Barry is to fill with dignity and efficiency the office of Principal of that important institution. Cheltenham College, under the judicious and able superintendence of Dr. Barry, has attained great prosperity and eminence as an educational establishment, and we have no manner of doubt that the same measure of success will attend Dr. Barry's labours when they are transferred to our great metropolitan church college. Dr. Barry is a sound and liberal Churchman, an eloquent preacher, a polished gentleman, an energetic man of business, and a ripe scholar. Dr. Barry was formerly a student in the College over the destinies of which he is now called upon to preside. From King's College, London, he proceeded to Cambridge, where he took his degree in 1848, in which year he was fourth wrangler, Smith's prizeman, and first class in classics. He subsequently became Fellow of Trinity College. Dr. Barry's name appears in the same class-list with that of Lord Stanley, the present Secretary of State for Foreign Affairs, also an old King's College student, and first class in classics in 1848. Dr. Jelf's period of office expires with the present term, and we presume that the new Principal will enter upon his office at the commencement of the next, which coincides with the opening of the Medical session in October.

SPIRITUALISM OUTDONE.

In the good old times, when it was the fashion to burn witches, it is probable that in many a case a coincidence of physical and mental causes, such as we are about to mention, may have had the effect of bringing a spiteful old crone to the stake. It appears that at the Limerick Sessions two men were charged with having assaulted a relative. The prosecutor summoned his own father as a witness. The mother of the prisoners, exasperated at the prospect of her sons being sent to prison on the evidence of her own relative, gave expression to her feelings in a malediction, praying that when the old man left the witness-box he might be paralysed, and paralysed he was accordingly, and had to be taken to Hospital. Such miraculous illness not yielding readily to ordinary modes of treatment, the old lady has been requested to remove her curse by spitting on the patient; but this she sternly refuses to do, and the man remains in Hospital. This beats modern spiritualism hollow. If Mr. Home and his disciples could only produce a few such striking effects, there are many persons whom the most rigorous scientific investigation would fail to convince, "contrary to the evidence of their own senses," that the connexion between cause and effect is something more definite and invariable than the chance link which, in illogical minds, gives to a coincidence the factitious value of an effect.

THE FEVER IN THE MAURITIUS.

Last accounts from the Mauritius, dating up to April 16, give a much more favourable report as to the health of the island. The severe hurricane of March 11 and 12, attended and followed by deluging rains, although looked upon as an additional calamity at the time from the injury inflicted upon the crops and from the increase of distress which it occasioned, has produced the most beneficial results. During March of this year the rainfall was 31 inches; in the same month of 1866 it was 7·75, and of 1867 8·1 inches. During the first sixteen days of April of the present year nearly 10 inches of rain had fallen, while during the same period in the two preceding years respectively only 4·5 and 6·5 inches had fallen. The cleansing effect of such a large rainfall, and the atmospheric changes caused by the hurricane

and the fresh easterly winds which have followed it, have had the effect of reducing the number and severity of fresh cases and relapses of the fever in Port Louis, and still more remarkably in the country districts. From November, 1867, till February, 1868, the hottest months on the south of the equator, the fever was chiefly of the gastro-bilious remittent form, and frequently fatal—more so, in fact, than it had been during the corresponding period of the preceding year; so that the most gloomy anticipations prevailed. These, however, have now happily, to a great extent, been relieved. The average daily death-rate in Port Louis during February was—from fever 25, and from other causes 9; from March 1 to 16—from fever 27, and other causes 12; during the latter half of March—from fever 24, and other causes 12; and from April 1 till April 16—from fever 18, and other causes 12. The mortality from other causes was increased by injuries sustained during the hurricanes, and by privations and exposure afterwards. An idea of the extent of improvement in the health of the island may be formed when we remember that from April 1 till April 16, 1867, the daily death-rate from fever in Port Louis was 209. Notwithstanding the comparatively good health of the present season, cases of fever have been rather frequent among the newly arrived troops. The mortality, however, has not been high.

SPECTRUM ANALYSIS.

The Society of Apothecaries may be congratulated upon the success they have achieved by the course of lectures on the optics of the prisma, or, as it is popularly termed, "spectrum analysis," which Professor Roscoe, of Manchester, is now delivering before the distinguished audience which they have invited. On three occasions has the Hall been filled to overflowing with visitors eager to listen to the able expositions of Professor Roscoe, and see the still more attractive and striking experimental proofs by which the lectures are illustrated. Hence it is an easy prediction that the lectures to come will be of equal interest with the former ones, and will be equally appreciated. Perhaps the interest may be even increased, at least in the Medical portion of the audience, when those phenomena are to be touched upon which this method of investigation has already discovered in the blood and its derivates.

We cannot be astonished that for years the scientific world should have been greatly moved by the discoveries of Kirchhoff and Bunsen; for, independently of their intrinsic value and importance, they were the continuation or accomplishment of what Newton had initiated. The mathematics of facts were greatly enlarged, and received a firm and easily grasped cohesion in the shape of a theory—we mean theory in the true, the Galenic sense. But what we know that scientific men, amongst them those who have themselves greatly promoted or extended this splendid method of research (we betray no confidence in instancing Professor Stokes), are astonished at is this—that the method of spectral analysis has been ready for some years, and yet scarcely any use has been made of it for either physiological or pathological research. We believe that almost the only instances of attempts to introduce it into Medical study are contained in the *Proceedings of the Royal Society* (Dr. Dupré's researches), and in the Report for 1867 of the Medical Officer of the Privy Council, Mr. Simon. We therefore hope that the course of lectures which the Master and Wardens of the Society of Apothecaries have instituted will be instrumental in directing the attention of general readers as well as special inquirers to this interesting subject Only by means of the concurrence of all elements in our Procession can it be made practically and philosophically fruitful.

PARLIAMENTARY.—CONTAGIOUS DISEASES LEGISLATION—VOTES FOR UNIVERSITY BUILDINGS.

On Friday, May 15, in the House of Lords,

Lord Lifford called attention to the Contagious Diseases Act, and, after quoting various authorities in proof of the beneficial operation of that Act in respect of the health of the army, inquired of the Government whether they intended to extend the measure to London, and to make it more effective by increased hospital accommodation.

Lord Templetown having said a few words in corroboration of the excellent results of the Act,

The Duke of Marlborough agreed that the operation of the Act at military and naval stations, to which alone it applied, had been most successful. The metropolis had not been considered to be a military station for the purposes of the Act, and the Government had no intention of proposing to include the civil community within the range of the Act. Such a measure would involve large hospital accommodation and a large expenditure in London, and if other large towns were to be similarly dealt with an outlay would be necessary that would probably not be willingly acceded to. The Government would not object to the appointment of a Select Committee, if it should be considered that further information was required.

The Duke of Somerset thought the successful working of the Act would warrant its extension to other places than those to which at present it was confined, and suggested that the Act should be extended to Liverpool, Dublin, and other large towns with which the army and navy were connected.

Lord Lifford adopted the suggestion of the Government, and promised shortly to move for a Select Committee.

On Tuesday, May 19,

On the motion of Viscount Lifford a Select Committee was appointed to consider the Contagious Diseases Act, 1866.

On Friday the House of Commons went into Committee of Supply, when £25,000 were voted to complete the buildings for the University of London, £55,000 for rebuilding the wings of Burlington House to accommodate the scientific societies, £20,000 for the Glasgow University buildings, and £7000 for buildings in connexion with the Queen's University in Ireland.

THE CEREMONY AT ST. THOMAS'S.

(From an occasional Correspondent.)

The pages of a sober scientific journal are not the place where Court pageants are described as a matter of course, or where the bright hues and brighter glances of English dames and demoiselles, or the Court suits and uniforms and the becoming gravity of the preux chevaliers who attend them, may be expected to be most appropriately discussed. I confess myself a "'prentice han'" at this sort of thing. I am not acquainted with the mysteries of millinery, male or female, and I fear I have for many years greatly neglected Debrett. Still, your staff are pre-eminently loyal and pre-eminently gallant, as well as pre-eminently scientific and Professional, and therefore I send you a letter which I hope if your usual readers will not, their wives and daughters will, read.

The ceremony of laying the first stone of what will undoubtedly be the grandest Hospital of modern times by Her Most Gracious Majesty the Queen, was certainly a thing to be seen and remembered. The moral, philanthropic, Medical, and religious aspects of such a ceremony suggest to me columns of platitudes; but, magniloquently as I could discourse on them, I resist the temptation, and confine myself to a sketch of the very pretty sight, and nothing else. Imagine, then, fair readers, a tent capable of holding several thousands of people fitted and arranged like a theatre, with seats for about three thousand rising above each other tier after tier. The central space, which is of great extent, is carpeted with bright red cloth, and a little behind the centre, where the stage in an ordinary theatre would be, is raised into a dais, on which two rows of gilded chairs are placed; above these hangs a canopy of blue and white bearing the royal monogram. In the middle of the front row is an arm-chair, which is a little in advance of the others; it is to do duty as the throne. At some distance in front of the dais hangs in mid air a large block of polished granite, on which is inscribed in golden letters that it was laid by Her Most Gracious Majesty Queen Victoria on May 13, 1868. At intervals around the central space are

grouped rare exotics and flowering plants, and the *coup d'œil* is as gay as flag and banner, and the bright sun of a May morning, can make it. The ceremony is announced for half-past eleven, but of course the spectators are in their places long before.

To begin with the Church: the Archbishop of Canterbury, looking the beau ideal of a venerable ecclesiastic, came early and took his seat on the right of the chairs of state. He was attended by two clergymen, the younger of whom, I noticed, wore a University of London hood. Amongst the other dignitaries were His Grace of York and their Right Reverend Lordships of London and Oxford. The State was represented by a number of her Majesty's ministers, who, in Windsor uniform, might have been taken by the simple for lacqueys. But there was no mistaking the last to arrive—a face and figure with which, now the Duke of Wellington and Lord Brougham are gone, the people of England are becoming more familiar than with any other. It was a little after eleven when the Prime Minister and Mrs. Disraeli entered. Every seat was by that time filled, and his appearance was the signal for an ovation, which, if statesmen have the nervous systems of ordinary mortals, must have quickened the ventricular systole under the buttoned blue coat. Cheer after cheer followed him as he took a seat first amongst the Members of the House of Commons and afterwards in a space specially reserved for the Cabinet. At last a great part of the assembly fairly stood up and gave him a welcome which at all events showed that there is a national homage payable at sight to pluck and talent. "How like he is to his pictures in *Punch!*" said a young lady behind us. So undoubtedly he is, but it is the simple truth that I have seen neither picture nor caricature which gives a shadow of an idea of the power of his face. Dizzy could never be mistaken for an Englishman. He is thoroughly Shemitic, and as unmoved as the Sphinx. All about him, even to the very eyeglass through which he is leisurely surveying his pretty admirers, suggests the unfathomable imperturbability of the Asian mystery.

Then there were members of both Houses of Parliament, foreign ambassadors, the Lord Mayor and Aldermen berobed and bechained; law, represented in the person of the Lord Chancellor; and Physic and Surgery in the persons of Sir Thomas Watson, Sir William Jenner, Sir William Fergusson, nearly all the staffs of the London Hospitals, and many more. But *place aux dames!* The ladies in blue and the ladies in lilac, the ladies in green and the ladies in white, and the ladies in all other colours, they were the true decorations; and where the sunbeams through the striped awnings threw prismatic lines of coloured sheen upon them, I confess that even Professor Roscoe's experiments, which were the prettiest things I had seen in the way of light for some time before, were completely thrown into the shade. The time passed rapidly enough, two bands of the Guards relieving it, and by turns each other. Opera glasses were in great request, and helped to bring friends and strangers together without the trouble of talking. When, soon after half-past eleven, the band struck up the National Anthem, the whole vast assembly rose, and amid loud acclamations, preceded by bowing officials and followed by a brilliant court, in stately but sable guise, the Majesty of England entered.

The Queen took her seat in the central chair on the dais; on her right were the Princess of Wales, who looked charmingly, the Princess Louise, Prince Leopold, and Princess Alice; on the left the Prince of Wales, the Princess Christian, Duke of Cambridge, and Prince Christian. The second row of chairs was filled by the Mistress of the Robes, the Master of the Horse, and other mysterious personages, whose doings are chronicled in the *Court Circular*. Amongst the Hospital officials who, like the immortal Madame Blaise, "walked before" in the procession which preceded the Queen, we noticed the familiar faces of Drs. Barker and Bennett, Mr. Solly, and Mr. Whitfield; these, together with the *οἱ πολλοί* of contractors and governors, drew themselves up at a respectful distance from the dais, and then "God save the Queen" was sung in unison by all present who could sing, the second verse only being given by the red-coated choristers of the Chapel Royal and the choir of St. Paul's.

The next proceeding was the presentation to her Majesty of an Address from the President, Treasurer, and Governors of the Hospital. This was read by the President, Alderman Sir John Musgrove, Baronet, a venerable citizen, who seemed to perform his part in the pageant with a solemnity which was above all praise. Of course nobody heard a word of the address beyond the immediate bystanders, but its brevity was excellent. Her Majesty, having received the address, delivered it to Mr. Gathorne Hardy, and handed back a written scroll in reply, and thus ended Act the First.

Act the Second began with a flourish of trumpets, during which the Queen, followed by the Prince of Wales, walked down to the stone. A number of parchments, which were understood to be copies of King Edward VI.'s Charter, the Acts of Parliament relating to the Hospital, and a list of the Governors, together with the coins of her realm, were placed by her Majesty in a glass vessel, which looked suspiciously like a preparation jar brought from the museum, and then, assisted by Mr. Currey, the architect, the Queen deposited it under the stone. Her Majesty spread the mortar with a very elaborate trowel, which, I hear, was furnished by Messrs. Howell and James; and then, amid general acclamations, the sound of trumpets, and the booming of artillery, the stone began slowly to descend into its place. When fairly lowered, her Majesty, under the direction of Mr. Perry, the builder, tapped it artistically with a jewelled mallet, thrice on each side, each tap being a signal for fresh applause; and thus the stone was laid.

The last act was religious, as befitting so Christian a rite. The Archbishop of Canterbury, in a clear voice which could be heard all over the pavilion, said two collects, the second one specially composed for the occasion, and the Lord's Prayer, and the whole assembly sang the Hundredth Psalm and Bishop Ken's Doxology, the military bands accompanying the psalmody. The apostolic benediction, pronounced by the Metropolitan, gave a fitting conclusion to the ceremony, and directly afterwards, followed by the clash of military music and the ringing cheers of her devoted subjects, the Queen and her family retired, escorted to their carriages by the Hospital authorities. Never has Court spectacle been more successful, or has a national building been commenced under brighter auspices. Truly fair Thames is a river of which Englishmen have a right to be proud, although it has been of late years dirty and troublesome enough. From the Hampton of Wolsey to the Tower of Cæsar the river winds by the grandest monuments of the nation's genius, industry, and power; but I may surely prophesy that no building will hereafter grace its banks to which an Englishman may point with more honest pride than the Hospital which is now to be re-erected to the glory of the Creator, the benefit of humanity, and in honour of St. Thomas the Apostle.

PRESENTATION OF THE RICHARDSON TESTIMONIAL.

On Wednesday, the 20th inst., a large assemblage, both of ladies and of gentlemen, was convened at Willis's Rooms to witness the presentation by the Chairman, Mr. Paget, of the testimonial to Dr. Richardson, subscribed for by 600 individuals, both in the Profession and outside its ranks. Amongst those assembled on the platform we observed Sir Thomas Watson, Bart., Sir William Fergusson, Bart., Sir E. Belcher, Dr. Day of Stafford, and others.

Mr. Holt Dunn, one of the Honorary Secretaries, first read the letter originally published for the purpose of soliciting subscriptions, and announced that to this appeal such a liberal response had been made that no less a sum than £1150 had been collected, which would be presented to Dr. Richardson, partly in money and partly to give him some lasting memorial of the occasion, in the shape of a Ross's microscope.

Mr. Paget, the chairman, then proceeded, in a most admirable and eloquent manner, to present to Dr. Richardson this tribute to his talents and his industry. He remarked that to this testimonial no fewer than 600 individuals had subscribed, and that it was offered to Dr. Richardson as a reward for the scientific work he had done and for the spirit in which he had done it. Still he thought that all testimonials presented in such a fashion during the lifetime of an individual demanded an apology in the old and better sense of the word, and that such an explanation might be given, he would put himself, as it were, in the position of the counsel for the defence. There never had been such a spontaneous offering to a scientific man before; in point of value the testimonial had never been surpassed. Furthermore, all who had subscribed to it had been well able to judge of the work

done, and the consent of so many men of standing would alone seem to justify the proceeding. Still, this reason must by itself be rejected, for before now as many men had conspired to do wrong. Dr. Richardson had, however, fairly earned this reward by his scientific work. The variety of this work was so great that he himself could not venture to speak of it in all its departments, and he would therefore limit himself to those of which he was himself most cognisant. He might take, for instance, Dr. Richardson's researches as to the effects of cold on the nervous centres, thereby showing us how we could suspend the action of one portion of the cerebral mass, and watch the effects of this suspension as well as the gradual renewal of the activity of the part. Dr. Richardson had thereby added a new means of research to our scientific processes, which would doubtless tend in the future to increase still more the riches of our science. Some of his contributions to Medicine had been of a more practical character, one of the earliest of these being a most valuable essay on fibrinous concretions of the heart. Amongst others of value, and even more practical, he would cite his essays on scarlatina, on the phthisis of drunkards, and on palpitations and interrupted action of the heart. There was much good in all of these, but still more happy was that investigation which ended in the discovery of the means of effecting local anæsthesia by ether spray—that which suggested, although it did not alone originate, the present testimonial. This discovery was the result of long-extended inquiries, the triumphant termination of a true inductive process. Nothing could be compared with the discovery of the effects of inhaling ether, or of its more convenient but less safe substitute, chloroform. Still, every one wished for something more for those operations *where it was not worth while to give chloroform*—not worth while to suspend all sensibility with even the smallest risk of life, or even of the subsequent discomfort. For these, local anæsthesia by means of the ether spray, a method at once brief, safe, and completely successful, was an almost perfect invention. He did not quote this as Dr. Richardson's greatest discovery, but it suggested the time for the presentation of a testimonial to one who had given the means for abolishing so many atoms of pain, and thus enabled us to contribute still further to a true humanity. He could speak of other investigations—his researches in chemistry, as, for instance, with regard to the amyl compounds, undertaken by the sanction of the British Association; of his contributions to therapeutics, as, for instance, in the suggestion of peroxide of hydrogen, iodide of methyl, and other substances. He (Dr. Richardson) was further the author of uncounted papers written in clear, strong, and fluent English. He thus believed that he had succeeded in his apology. Still he would not pretend that there were not other scientific men now alive who equally deserved a testimonial with Dr. Richardson; but it was not given for his scientific attainments only, but also for the good, thorough, earnest, honest spirit in which his researches had been conducted. As to a man's discoveries, posterity alone could adjudge their value; but of the spirit in which he had laboured his contemporaries were the only true judges, and could alone reward it. Thus it may be just to give testimonials to the living, and if so, then to none more justly than to Dr. Richardson, who had ever laboured for the elevation of true science. It was impossible to find one more open-hearted and open-handed than he, and posterity could never reward the good temper and earnest spirit which he had ever manifested. To speak his own mind, the Chairman said he was proud to have lived with Dr. Richardson, proud to have shared in the largeness of his heart, and proud, above all, to have aided in recognising qualities which posterity could neither know nor reward.

The presentation having been made,

Dr. Richardson, in returning thanks, said that there were times in the life of every man when from very fulness of joy he could not speak. He would confess that for his part he had ever been a hopeful man, and in some sense an ambitious man—ambitious, that is, to earn some place and mark in this world, to show that he was worthy of having been born; eager to prove to the world that in Physic there was a soul of usefulness it could not well spare. Still the expectation of this reward had been far from him, although to him and to his loving wife it would constitute a new era in their lives. That this testimonial was without parallel was surely most satisfying, the more so that as it was impossible to obtain mark without coming in collision with one's fellows, and he had ever been an outspoken man, he now found that these contests had all been forgotten, and he discovered in his opponents his sincerest friends. But there had been something else behind. It was part of his work to blend Medicine with universal science, to act rather as a teacher than as a priest, to repel all mystery connected with Medical science; and that his labours in this direction had been accepted, he took for evidence that men of very various classes had contributed to this testimonial. He dared not accept such a testimonial for himself alone, but rather for the Profession to which he had the honour to belong. How could he thank those who had exerted themselves so much on his behalf—Dr. Day, Dr. Sibson, and the Messrs. Dunn? For himself, he had been as it were born to Medicine, and although on this early commencement a portion of his success depended, it was still mainly due to a firm faith in the destinies of man, and a belief in the grandeur of the true Medical scholar. He believed that in time pain would be no more, and that death would be made painless as birth. This was the ideal towards which he had ever struggled, and, with increased assurance that both were true, he would now go on strengthened and resolute still to sustain his vocation.

Sir E. Belcher having proposed a vote of thanks to the gentlemen who had given their services in carrying out this scheme, Dr. Day, of Stafford, and Mr. R. W. Dunn replied.

Sir Thomas Watson then proposed a vote of thanks to Mr. Paget, of whose great fame he said it would be superfluous to speak; for his own part, he entirely concurred with what had been said. The power and sagacity of Dr. Richardson's mind were scarcely less remarkable than the clearness with which his views had been expressed, his frankness, and his magnanimity. In accepting this testimonial, Dr. Richardson had cause for congratulation in that it had been presented by such a Chairman.

The motion having been seconded by the Rev. J. B. Reade, and Mr. Paget having made a short and appropriate reply, the meeting dispersed.

MEDICAL NOTES ON PRISONS, PRISONERS, AND PUNISHMENTS.

THE CITY HOUSE OF CORRECTION, HOLLOWAY.

By the year 1843 the City magistrates had found that the means at their disposal for correcting and punishing criminals had become inadequate, according to prevailing notions, and various plans were proposed for the accommodation of the criminal population. The most important of these were proposals for the enlargement and alteration of Newgate, of Whitecross-street Prison, and of the Fleet, all of which were abandoned for the erection of a new edifice in accordance with the most advanced notions as to punishments—in short, the erection of a model prison at Holloway. One great reason adduced for building the prison outside the City was the improved health the prisoners were likely to enjoy in an airy healthy situation as compared with the best obtainable site within the City itself. This reason had justly great weight with the magistracy, and there being at Holloway a vacant piece of ground belonging to the Corporation, it was determined to erect the prison thereon.

The position is admirable as regards health, and it is also ready of access, being situated in the Camden-road—a great thoroughfare leading across the north of London from Regent's-park and Camden-town to Hornsey and other more easterly districts. It is close to the junction of this road with the Holloway-road, leading from the City to Highgate, and near the Caledonian-road, leading downwards towards King's-cross. Externally the prison has some architectural pretensions, being built in the castellated style, the central ventilating tower-like shaft tending to enhance these characteristics. The governor's and chaplains' houses flank the entrance; they are of brick, the building itself being of stone.

Inside the great gates, right and left, are the visitors' waiting-room and the porter's lodge, in which all visitors to prisoners are searched and deprived of anything which might be conveyed to the prisoners. In a cupboard in the room where the book for the signatures of visitors to the prison lies, there was till lately a collection of arms, consisting of rifles, pistols, cutlasses, etc.; but owing to recent disturbances these have been removed within the prison itself, which is separated from the entrance-gate by a gravelled yard surrounded by a flowered border carefully kept by prison labour. Just inside the gate-lodges an old warder, now superannuated, used to

occupy his spare time in erecting little models of castles, windmills, waterwheels, and railways; nothing delighted him more than the noticing of these things; he could also, by turning a tap, direct a stream of water upon certain parts, and thus give them motion. They now, deprived of the fostering care which gave them birth, seem somewhat dilapidated. This may seem to many a thing so slight as to be unworthy of notice, but to our mind it has its significance, giving, as it does, a glimpse of the prison mind. For it must be remembered that the duties of a prison warder are no sinecure; in fact, they are in many instances more oppressive than those of the prisoner himself; and although he is only on duty—if indeed we dare say only—twelve or fourteen hours out of the twenty-four, this little grotto shows the longing for a form of employment diverse from the ordinary run of prison duties. Intensify this longing a hundredfold, and we get a glimpse of the prisoner's feelings, and begin to appreciate in one way the value of such a punishment as incarceration taken by itself.

On entering the folding-doors leading to the interior of the prison, the visitor to Holloway cannot fail to be struck with the extreme cleanliness displayed in everything. This, indeed, is one of the most notable peculiarities of Holloway Prison. The floor and stairs, of stone, are beautifully clean, and to prevent any accidental impurity little mats are laid down, on which the passenger may step. That portion of the prison containing the cells, as well as the cells themselves, is floored with asphalt, which is burnished as brightly as a drawing-room grate; not a speck of dust is discoverable. The furniture of each cell consists of an exceedingly white wooden stool and folding table; in one corner is a closet, with a tolerably well fitting lid, and connected with it by a pipe is a small copper washing basin. Above the basin is a handle, communicating with the water pipe, which, being turned one way, directs the flow into the stool, in the other to the washing-basin; all refuse water escapes through the stool. Each prisoner is allowed six gallons of water a day; this is kept in a little cistern in the wall until wanted. Herein, we think, lies the great defect of this conjoint washing and closet arrangement. In our visitations from prison to prison—for this arrangement is generally adopted—we have seldom found the water pressure sufficient to swill the pan with any great degree of force, so as to clear out its contents thoroughly. There appears to be a thorough washing out once a week, but this is insufficient. Thus is obtained one of the elements of the indescribable but unmistakable prison odour.

In another corner of the cell are two shelves, sustaining a tin pannikin for gruel, the wooden spoon, saltcellar, etc., allotted to the prisoner. On this he also keeps the books given him by the chaplain for private reading. On the shelf above are the bedclothes and hammock, tightly and neatly rolled up, ready to be unslung and stretched across the cell, being thus suspended from hooks, when the signal is given to prepare for bed. Each prisoner is further allowed a clean towel and a large and small toothed comb. He has a brush to sweep and polish his cell floor, and a small mat on which to kneel while engaged in this work. The prisoner himself is clothed in dark grey woollen stuff, and a small woollen cap; on his breast is a brass badge, somewhat similar to a cabman's, and like this bearing the prisoner's number. A ticket recording the date and nature of the sentence is suspended in each cell. Each cell is well warmed and ventilated by heated air, entering at a grating below the window and escaping by a corresponding orifice over the door. In some prisons, it is said, the reverse order is adopted for some extraordinary reason, the warm air entering above and being allowed to escape below. Close to the door of the cell is a square handle, which, being turned, causes a gong common to the whole row of cells to sound; but further to secure the attendance of the warder on the proper prisoner, and to procure the punishment of any one who sounds the gong without due reason, the turning of the handle causes a plate marked with the number of the cell to project at the same time, remaining in this position until replaced by the warder. The temptation to turn this handle, even when punishment is sure to follow, is often very great; and occasionally, when at liberty, your thorough gaolbird will—referring to the warders' uniform—boast that, when in prison, he has only to pull his bell to secure the immediate attendance and attention of a servant in livery; but these are among the amenities of prison life.

We have already referred to one of the characteristics of this prison—its cleanliness; another and no less noticeable peculiarity is connected with its labour system: *no labour is wasted*. It has been with many a question whether or not prisons should be made self-supporting. Jeremy Bentham thought they might even be made sources of profit. Now, although no prison has ever yet become such, there are great variations throughout the country as to the amount of money made by prison labour. At Holloway, we have been informed on the best authority that every prisoner under a sentence of more than six months' duration becomes self-supporting. This we hold to be right; it is not fair that a heavy county or borough rate should be imposed for the support of men whose labour, such as it is, is wasted in grinding the air. His labour is the only return he can make for the costly staff and the enormous edifices a prisoner, as an integral part of our criminal population, has by his misconduct necessitated. The nature of the employment afforded a prisoner is an essential feature of his discipline, and enters into a great question hereafter to be discussed, deterrence or reform. In the meantime, let us say that the principal employments at Holloway are boot-making, tailoring, and mat-making. There is a small treadwheel in an outhouse in the extensive grounds surrounding the prison, which is employed in raising from a deep artesian well the water required for the establishment, and according to the quantity required is the period of labour on this wheel. Not that the period of actual labour varies; this is in all cases ten hours, excluding the time for exercise and meals, but when not occupied on the wheel this class of prisoners is employed in picking oakum. The picking of oakum has always appeared to us a singularly unsatisfactory kind of work; true, it is available for all prisoners, skilled or unskilled labourers alike, but it does not fall equally on all. The old and expert gaolbird can pick his quota with the greatest of ease, turning out a beautiful product, whilst the unskilled prisoner, particularly if his hands be soft, will labour in vain to contribute his portion, when punishment is sure to follow. Sometimes the rules as to such prisoners are relaxed, and the full quantity is not exacted; but this proceeding is decidedly objectionable; it does away with the certainty of punishment, and introduces that feeling of uncertainty, that suggestion of a chance of escaping with impunity which rests at the bottom of many crimes. At Holloway this objection does not hold good, the full quantity being enforced from all—not exactly day by day, although the quantity of material supplied has to be daily accounted for, but rather week by week, the accounts being then balanced, and warning or punishment following, according to the frequency of default—warning for the first delinquency, punishment by deprivation of a portion of daily food for the second. If persisted in, the prisoner is sent to the dark cells, and bread and water. The tailors and shoemakers are chiefly occupied with clothing for the prison and for Newgate, as well as for certain other City institutions; but the chief and most important industry of the place is mat-making, in which most are engaged—the stronger in making and dressing the mats, and preparing the material, the weaker in sewing certain portions of them together.

Few people are aware that most of the mats and matting used in this country are of prison manufacture; this is, indeed, the great prison industry. At Holloway a considerable proportion of the prisoners are so engaged, the rooms devoted to the purpose being airy and well ventilated. This is essential to the well-being of the prisoner, for in the manufacture much dust is formed, which, were it not rapidly carried off, would do injury to the workman's lungs. This is one great objection to mat-making in solitary cells occupied day and night, it being almost impossible to secure such an efficient ventilation as to thoroughly remove any particles of the cocoanut fibre as are constantly floating in the air. This, combined with the prison diet, so deficient in variety, and want of exercise in the open air, no doubt tends to add to the amount of tuberculous disease common in prisons. In Holloway Prison, however, thanks to the good ventilation and the fine open site, disease is uncommon, the infirmary being rarely occupied by more than one or two prisoners, although the number in the prison is seldom under 350, the total number for which there is accommodation being about 400.

The grounds within the prison walls and surrounding the buildings are cultivated by prison labour, and produce large quantities of vegetables for use in the prison; they are chiefly used in the form of soup, which, as well as the bread (supplied by contract), is of good quality. The kind of labour above alluded to is, however, only given to certain of the inmates of the gaol for good behaviour or some other sufficient reason. It will thus be seen that the labour here is not wasted—a fact

we are prepared to urge as of the highest value in maintaining discipline, and in promoting the future welfare of the prisoners. In point of fact, the discipline in Holloway Prison seems, from what we saw of it, to be admirable; and yet punishments are not numerous, most of the dark cells having been converted to more useful purposes. The prisoners for the most part look cheerful, and seem to work willingly, and have not that downcast despairing expression we have elsewhere observed.

Holloway Prison receives in special departments both boys and women, but we must defer our account of these until a future occasion.

REVIEWS.

On Vaccination: its Value and Alleged Dangers. A prize essay. By EDWARD BALLARD, M.D. (Lond.), University Medical Scholar and Gold Medalist, Fellow of University College, M.R.C.P.L., and Medical Officer of Health for Islington. London: Longman, Green, and Co. 1868. 8vo. Pp. 301.

Small-pox and Vaccination. An essay. By T. MASSEY HARDING, M.R.C.S.E., District Surgeon of St. Pancras Union, formerly House-Surgeon of Middlesex Hospital. Published by the Ladies' Sanitary Association, at their office, Pont-street, Belgrave-square. 1868. Pp. 66.

Vaccination: its True Use and Power. By BENJAMIN GODFREY, M.D., F.R.A.S., M.R.C.S.E., and L.S.A. Enfield: J. H. Meyers. 1868.

Vaccination: its Tested Effects on Health, Mortality, and Population. An essay. By C. T. PEARCE, M.D., M.R.C.S.E., etc. London: H. Baillière. 1868. 8vo. Pp. 120.

Have you been Vaccinated, and what Protection is it against the Small-pox? An essay. By W. J. COLLINS, M.D., L.R.C.P.E., M.R.C.S.E., etc. Second edition. 1868. London: H. K. Lewis. Pp. 61.

A Handbook of Vaccination. By ED. C. SEATON, M.D., Medical Inspector to the Privy Council. London: Macmillan and Co. 1868. Small 8vo. Pp. 488.

(Continued from page 536)

CONCERNING the two first works on the above list, we have said quite enough to warrant our assertion that Mr. Massey Harding's is an excellent and most useful popular essay on the subject of vaccination, and Dr. Ballard's a highly valuable addition to Medical literature. We hope that both will be extensively read.

Dr. Godfrey's little pamphlet has been written "to place before the public the great fact that *bad* vaccination is better than *good* small-pox, and then to show by statistics what *pure* vaccine has done." He shows, by statistics drawn from Mr. Simon's papers and other well-known and trustworthy sources, the value of vaccination, both as a protective power and as a modifying power; how it protects against small-pox more or less perfectly as it has been less or more perfectly performed; and how, as a rule, it takes the sting out of that disease when it does attack the vaccinated. Some of the quotations he gives are well calculated to tell on the public mind, as the following from Drs. Buchanan and Seaton's report in 1863. Out of 50,000 children in various charity and national schools they found that "some of the children had never been vaccinated; the large majority had been vaccinated in various ways and degrees. Of every 1000 children without any marks of vaccination, we found that no fewer than 360 had scars of small-pox, while of every 1000 children who had evidence of vaccination, only 1·78 had any such scars." And he shows how very carelessly and imperfectly vaccination is often performed, while its protective power is in direct proportion to the fulness and perfection of the operation. The directions he gives for its due and proper performance are excellent, and cannot be too rigorously insisted on; but he is almost dangerously enthusiastic in his praise of and love for vaccination thus carried out. He will not hear of any defect in it, still less of any taint of possible evil. "Scrofula is an hereditary disease. . . . Now, vaccine cannot carry in its arms this strumous tendency. Scrofula and vaccine are antagonistic. The disinfectant destroys the poison when it comes in contact with it; so with vaccine when in contact with scrofula—it reigns supreme, or dies." Again, with regard to the dangers of vaccino-syphilitic inoculation, he appears not to have seen any report of Sperino's cases, and relies implicitly on Sigmund's experiments, as proving that the syphilitic virus destroys the vaccine virus, and he draws the following conclusion:—"Surely, if syphilis, the most contagious of all ailments, cannot be mixed with the vaccine, and produce vaccination results, then scrofula or skin diseases, which are not contagious, cannot coexist with lymph and deteriorate its quality or injure the patient. Syphilis can be communicated by a kiss, drinking out of the same cup, wiping the nose with the same pocket-handkerchief, or even by a touch. Yet, glorious fact, it has no power to vitiate vaccine, although it has to destroy it. . . . Let no one, after this, impute to vaccination that it carries in its arms the seeds of disease and trouble. It comes to us an open-handed friend, pretending to do nothing that it cannot perform. It only professes to rob us of our enemy that has desolated our hearths and blighted our homes. It only slays the tyrant small-pox, and sets our little children free." But if we are inclined to smile at Dr. Godfrey's logic sometimes, and at his eloquence, and cannot fully share his belief that vaccination is "perfect in its action as a remedy against small-pox," and "retains its power for ever," we do entirely agree with him that its dangers have been greatly exaggerated, that it ought to be performed only by thoroughly qualified Medical men, and that it is their duty always to perform it as well and as perfectly as possible.

If, however, Dr. Godfrey be very positive, and at times somewhat illogical, in praise of vaccination, Drs. Pearce and Collins are more dogmatic, and ten times more illogical, in their denunciation of it. Dr. Pearce is convinced that it is a "crime against nature." He finds that the annual rate of mortality in England is increasing, that phthisis is the cause of that increase, and that vaccination is the cause of phthisis. Still, the tone of his preface is tolerably moderate, and "he hopes that his Professional brethren, more wedded to the Jennerian theory, will, fairly and without prejudice, examine the questions." His physiology and pathology are rather curious. He appears to regard small-pox as a beneficent effort of nature to effect some change in the blood "necessary to the future well-being of the human subject," and to think that by vaccination we produce "a physiological change, which we do not yet understand, but which hinders nature in her efforts to throw off a poison." According to him, vaccination does not act on the blood, destroying in it the pabulum on which small-pox might have fed and multiplied, but it somehow shuts up the skin; and this he thus shows to be a great evil—"Let these millions of pores (of the skin) be closed by disease, or let the skin be coated with varnish, and the man will soon perish. Let fever attack him, and the action of the skin be arrested, death will speedily ensue if the action of the skin be not restored. Now, what change is produced by vaccination? There can be no doubt that some artificial change is produced, and so long as it is maintained the patient is in an abnormal condition. It may be, therefore, a blessing that the influence of vaccination dies out in a few years." The tone of his essay is, however, throughout moderate, and quietly argumentative, and in these points it very creditably contrasts with that of Dr. Collins. The spirit in which this latter gentleman writes may be seen in his "introduction," in which he says, when a prize was offered for the best essay on vaccination, "and the essayist requested to write 'without any reserve,' I thought that there was a chance of the whole subject being fully and fairly discussed, and that the public would be put in possession of all the facts. But when I heard that three *rabid vaccinators* (the italics are not ours) were to adjudicate, I at once came to the conclusion that any heterodox views would by these gentlemen be treated with contempt and ridicule." That the judges were all "*rabid vaccinators*" was news to us, who have the pleasure of their acquaintance; but one of them, we will allow, is probably disqualified in Dr. Collins's eyes to be a judge of the value of an essay on vaccination by the fact that he has for years held an appointment which gives him opportunities of being better acquainted with the subject than 999 out of every 1000 of his Professional brethren. Still, *we* should scarcely be prepared to assert that he would therefore treat "with contempt and ridicule" any honest and logical attempt to show that vaccination is a mistake, nor should we thank it exactly judicious to insinuate that any one who differed from us was influenced by pecuniary motives. We wrong Dr. Collins, however, when we say that he insinuates that the Profession support vaccination from motives of self-interest; he is not ashamed openly and repeatedly to assert that they do so for the emoluments the practice brings them! We will charitably hope that it is not self-knowledge that leads Dr. Collins to form this judgment of

his Professional brethren. We cannot waste time and space in exposing the fallacies and sophistries of these essays; those of our readers who are tolerably well acquainted with the history of vaccination, and with statistics of mortality, may, if they have a little spare time, get some amusement out of them; and the rawest student of the subject will be struck by the inconsequence of the arguments, and the frequent appeals to feeling and prejudice, instead of reason. We are content to note that men of science generally, even including the actuaries of insurance offices, hold that the value of life has greatly increased, and is increasing. This is so well known a fact that to illustrate it in our pages seems almost an insult to the intelligence of our readers; but we will draw a quotation or two on the subject from the last work on our list, Dr. Seaton's "Handbook of Vaccination." At page 297, he says:—"On comparison of the present general death-rate with the death-rate of the middle of last century, in any population for which the materials for the comparison exist, it appears that (*after deducting the small-pox gain*) the present rate is greatly below that which obtained before the date of vaccination. In London, for example, the annual death-rate from all causes, at the middle of last century, was 355 per 10,000 of population, and from all causes, *except small-pox*, 323; but in the middle of the present century it was, *including small-pox*, but 249. In Sweden, in the period from 1750 to 1775, the general death-rate was 289 per 10,000 of population; from 1841 to 1850 it was but 205. And similar results are obtained from the statistics of other countries. Again, analysis of the death-rates at particular ages shows that this gain pertains to all periods of life. Between the ages of twenty and forty years—the very time of life when, it was said, the peculiar liability of those whom vaccination had saved from small-pox to be carried off by other diseases manifested itself—the gain is very obvious. The mortality of early life, and at all ages short of old age, has steadily diminished, and the number of persons who attain a good old age has as regularly increased. Lastly, so far are fevers and scrofulous diseases—the forms of disease especially alleged to have taken the place of small-pox—from having increased in frequency and fatality, that (as has been clearly shown by Dr. Greenhow, in a very able and elaborate investigation of the death-rates of London, at different ages and from different diseases) there has been a most remarkable diminution." The remarkable diminution in the mortality from fever has been fully established by Dr. Greenhow and by Dr. Farr; and "the smaller mortality occurring nowadays from scrofula and consumption has been likewise satisfactorily shown by both these able inquirers, working from separate data." Dr. Seaton's handbook, from which we have extracted these quotations, is a work of great value and utility. He tells us that in writing it he had two objects in view—viz., "to provide a text-book on the science and practice of vaccination," and "to afford such assistance as he could give to those engaged in the administration of the system of public vaccination established in England." No man in England is more competent to instruct us on these subjects than is Dr. Seaton, and he deserves the hearty thanks of the Profession for the very full and able way in which he has carried out the objects with which he undertook his work. We have not space to indicate even its contents, but will only observe that it is most full and minute on every point on which information and instruction can be needed, and that it is supplemented with copious appendixes and indexes. Its appearance is very timely, and the Profession will, we are sure, fully appreciate its usefulness and value.

In conclusion we may remark that an immense amount of information on vaccination and on all subjects connected with it may be found in various reports of the Privy Council, and especially in the Bluebook, 1857, containing "Papers relating to the History and Practice of Vaccination," with an invaluable preface by Mr. Simon. Dr. Collins, indeed, has the hardihood to call this "an audacious attempt to prop up a falling structure, made by the Medical advisers of the Government," but he does not venture to do more than abuse it; "his limits forbid an analysis" of it.

It is worth while, perhaps, to reflect for a moment where the arguments of these denouncers of vaccination would lead us to. If vaccination is such a fruitful source of terrible ills, if it is "a crime against nature," we cannot stop short at the declaration that "it ought not to be enforced"—it would clearly be the duty of Government to forbid it. The inoculation of small-pox must also continue to be forbidden by law; for let alone the fact that that practice keeps up and fosters the disease, providing innumerable centres of infection from which it might spread, all the dangers alleged to attend the inoculation of vaccine belong also to the inoculation of small-pox. Are we then to be remitted to the tender mercies of unrestrained and unmitigated small-pox? Some years ago we attended through small-pox the unvaccinated children of a London working man. The type of the disease was happily not very severe, but we well remember the mother's cry of "O Sir, if we had had any idea what a disease small-pox is, we would never have opposed vaccination!" We must think that Drs. Pearce and Collins can really have no idea what a frightful scourge small-pox has been, and might again be.

In 1825, the late Dr. Robert Ferguson published a letter to Sir Henry Halford, then President of the Royal College of Physicians, in which, after showing that vaccination does not perfectly and certainly protect from small-pox, he strongly recommends inoculating with both the variolous poison and the vaccine poison, at the same time, or within a day of each other. In that way, he asserts, a mild varioloid is produced, which is a perfect protection. He quotes cases in illustration, and concludes: "I leave it to every parent to make his choice, between the small-pox, with all its dangers; or the cow-pox, with all its uncertainty; or, lastly, the modified small-pox, with all the mildness of chicken-pox, and all the preventive security of the inoculated small-pox itself." And to Willan's objection to a similar plan, that "it disseminates contagion," he replies that "so long as no law exists to enforce vaccination, the carelessness of some, and the prejudice in favour of inoculation of others, will always insure the existence of small-pox." Since then, vaccination has been made compulsory, and still carelessness and prejudice are most potent in keeping up small-pox; but we do not suppose that any one would now propose the double inoculation plan. We venture to say that Willan's objection to it is a very solid one.

GENERAL CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL.

[To the Editor of the Medical Times and Gazette.]

SIR,—I wish your able pen would advocate such a reform in the composition of the General Medical Council as should insure direct representation of Medical *Practitioners* in that body. The reasons are clear.

Medical Practitioners have been, and are, largely *taxed*, and have a right to representation on every principle of English fairness.

Medical Practitioners know their own wants, and should have the power of giving their opinions on the measures likely to relieve their grievances and promote their interests.

The members of the Medical Council are many of them not Practitioners, and do not represent them; nor have they interests in common, but quite the reverse. They represent educational and examining corporations, whose object it is to obtain fees for lectures and for diplomas, to let down the standard of education, and to fill further the already overcrowded *lower* ranks of the Profession.

I am, &c. A PRACTITIONER.

THE COMING ELECTION AT THE COLLEGE OF SURGEONS.

LETTER FROM MR. CHARLES BROOKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you oblige me by making it known through your pages to the Fellows of the Royal College of Surgeons, that I propose to become a candidate at the ensuing election of Members of the Council, as it is not my intention to stultify the principle of the ballot in seeking, by private solicitation, to anticipate the decision even of my personal friends?

My thoughts having for some years past been chiefly directed to physical science, I am bound to acknowledge that I have failed to contribute adequately to the common stock of Surgical knowledge; but having successively presided over two chartered scientific societies, and having from time to time sat on the councils of every learned society to which I belong, I think I may fairly claim a somewhat unusually large amount of experience in corporate management. Although for many years a teacher successively of Anatomy, Physiology, and

Surgery, it is not my intention ever to seek a seat at the Board of Examiners, as I think that the duties of that Board can be much better fulfilled by comparatively younger men who have been indoctrinated in the more advanced principles of modern science. I am convinced that the older members must ever experience a great difficulty in superseding time-honoured notions, however completely they may have been superseded by the results of recent investigation.

I am further disposed to advocate the utmost attainable publicity of the proceedings of the Council, as the safest guarantee for a due correspondence between the professed principles of candidates and their subsequent action in the Council. I am, &c. CHARLES BROOKE.

16, Fitzroy-square, W., May 19.

SIGNING CERTIFICATES OF DEATH.

LETTER FROM DR. M. G. B. OXLEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to hand to you the enclosed letter for publication in your next issue. It is of great importance that the members of the Profession should understand what is expected from them when signing a certificate of death (or, as it ought to be, "a certificate of the disease").

We have lately, as you are perhaps aware, had some difficulty about the granting of death certificates, and as at any time members of the Profession throughout the kingdom may be placed in the same position, it will be well to know that we can, if we choose, withhold the form as issued from the Registrar's office, and give our own, adapted to the exigencies of any particular case.

I am, &c.
MARTIN G. B. OXLEY, Hon. Sec.
Liverpool Medical Institution, Mount Pleasant,
Liverpool, May 18.

(Copy)
General Registrar's Office, Somerset House,
April 23, 1868.

Sir,—I have not failed carefully to peruse the documents sent to me in your letter of the 20th inst. Deaths are recorded in the Civil Register on the information of persons present at the death or in attendance, who affix their signatures to the public records, liable, under Act 24 and 25 Vict. chap. 98, 5, 36, to penal servitude for life if they knowingly insert in such register any false statement relating to such death.

In the entry, amongst other particulars, the statute enjoins that the cause of death be recorded.

It is presumed that persons present at the death or in attendance who present themselves to the Registrar for the purpose of recording that event are properly qualified to state with accuracy the other particulars; but with respect to the cause of death, it appears desirable that, in addition to the verbal statement of the informant, corroborative evidence as to the fatal disease should be produced in writing under the hand of a legally qualified Medical Practitioner, when the deceased has had the advantage of being attended by one. During the last thirty years the Medical Profession throughout England and Wales have given to the informants these written statements as to the precise cause of death, in very numerous instances to be presented to the Registrar, and to be recorded in the proper column as part of the information of the person present at the death or in attendance, who, according to the statute, is answerable for the truth of every matter registered relating to such death.

To assist the Medical Profession in giving these written statements, printed forms have been widely issued from this office, which may be altered from time to time according to circumstances; and, although they have been widely circulated in the hope of saving trouble to the Medical Profession, it is well understood that the use of such printed forms is not necessary, but that the fatal disease may be recorded in writing by the legally qualified Medical Practitioner in any form he may prefer—indeed, in England and Wales it is optional with him whether he gives it in any form—and, of course, it is incumbent upon him, where he has not actually seen the corpse, to exercise a wise discretion as to the reliance to be placed by him on the statement made to him of the death having occurred in his absence. I now understand the Liverpool Medical Institution to suggest that it should be the duty of the Registrar personally to ascertain the actual occurrence of the alleged death—I suppose by ocular observation—to make a report thereof to the Medical Practitioner, and then to obtain from him a written statement of the fatal disease. It is not in my power to direct registrars to adopt this course, and to enable them to do so the law of registration must be greatly altered.

If it be considered desirable that the Legislature should make such alterations, and if her Majesty's Government wish to be informed of my opinion upon the subject, I shall be prepared to state it. In the meantime I cannot put in practice what has been now suggested.

I have the honour to be, Sir,
Your faithful servant,
GEORGE GRAHAM, Registrar-General.
To the Secretary Medical Institution, Liverpool.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 28, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

DR. R. D. POWELL read a paper

ON TUBERCULAR PNEUMOTHORAX.

1. There is a constant tendency in phthisis to the occurrence of pneumothorax, though this tendency is commonly counteracted by the adhesions which take place between the pleuræ. 2. The softening down of tubercular masses and the ulceration round them are the commonly recognised causes of the production of pneumothorax; but this phenomenon is sometimes produced by a different morbid process, which results in the formation of a sinus analogous to those leading from diseased bone or old abscesses in limbs. 3. The character of the dyspnœa in pneumothorax resembles more that of cardiac than pulmonary disease. 4. The most important physical signs are hyperresonance, with suppressed or very feeble respiration on the affected side, and displacement of heart to the opposite side. 5. The intensity of the symptoms in pneumothorax, and likewise the prognosis, are dependent on—1st. Condition of lung at time of rupture. 2nd. Nature of the opening. 3rd. State of the other lung. 4th. Previous condition of the patient. 6. Though in all ordinary degrees of lung collapse the pulmonary circulation is not appreciably affected, yet, in the complete collapse of the lung in pneumothorax, the circulation through it is greatly impeded. 7. The air-pressure within the pleural cavity in cases of pneumothorax has not hitherto been ascertained. In five experiments made post mortem by the author, it varied from two inches to six inches of water. 8. The result of the impediment to the circulation through the affected lung is a disturbance of the relation normally existing between the pulmonary and systemic circulations. This disturbance is in a measure compensated for by the capacity of the venous, and more particularly of the portal, system, admitting of considerable accumulation of blood, and consequent retardation of its return to the right auricle. The indications for treatment are dependent upon the different modes in which death may occur—viz., by asphyxia, from pressure on lung causing obstruction to the circulation; by shock; by exhaustion. The principal methods of treatment to be considered are—paracentesis; bloodletting, by opening a vein or cupping; purgation, by hydragogue cathartics; opium administered by mouth, or by subcutaneous injection of morphia; stimulants.

DR. W. OGLE remarked that since the time of Louis it had been customary to say that the left side was the one most commonly affected; but he had examined the reports of his own Hospital, and found that out of twenty-four cases reported fourteen were on the right and ten on the left side. He thought that great stress had justly been laid on the physical rather than on the general symptoms, for the latter might be almost absent, as the condition existed in one case related by Sir T. Watson without the patient being aware of it. In one of his own, the patient, being a blacksmith, used to hear the splashing in his chest when he used his hammer. A man came in to have his leg amputated. He had no cough, yet his lung was found to be completely compressed. In one case an open-

ing through the lung was formed; but at the spot where it pierced the lung a thickening of the pleura existed, which did not give way, but formed a sort of sac. The explanation of negative pressure, he thought, would hardly meet the case. In every instance he had seen the bad side distended, so that the lung must be compressed in like manner.

Mr. Brooke said that the quantity of fluid appeared to be diminished by pressure. This was in accordance with natural laws; for if a tube was repeatedly doubled the current through it would be diminished. So it was with the capillaries; their calibres would also be lessened by the pressure.

Dr. Hare narrated a case of pneumonia at the apex of the lung in a girl of 18. There was much consolidation, followed by softening, which extended, and fluctuation was felt between the first and second ribs. There was great dyspnœa. Soon after, a quantity of intensely fœtid fluid escaped by the mouth, and resonance of the part followed. An opening between the ribs was made, which gave great relief. The lower portion of the lung was intact. She gradually recovered, and was quite well fourteen years after.

Mr. Edwards remarked that operation was sometimes undesirable, and that when desirable the difficulty of diagnosis was greatest. He had ordinarily seen such cases in greatly advanced phthisis. They were not so common as one would expect.

In reply, Dr. Powell stated he had only repeated Louis' statements; in reality the numbers at Brompton were about equal.

Sir G. Duncan Gibb, Bart., read a paper detailing a case of

SUBGLOTTIC GOUTY DISEASE OF THE LARYNX, REQUIRING TRACHEOTOMY, SUBSEQUENTLY DEGENERATING INTO CARCINOMA; WITH A COMMUNICATION BETWEEN THE TRACHEA AND ŒSOPHAGUS.

The author remarked that in the second edition of his work on Diseases of the Throat he had drawn attention to the subject of œdema of the larynx in its supraglottic and subglottic anatomical relations, and abolished the old term of "œdema of the glottis" for reasons there given. The diagnosis of either form of œdema could be made with the laryngoscope, which would guide the treatment to be pursued. The nature of the effusion differed in the two forms of œdema: in the supraglottic it was serous; and in the subglottic, as a rule, fibrinous. As his views had never been called in question, he took it for granted they were accepted by the Profession as correct. He now brought forward a new condition of subglottic disease of the larynx, partaking of œdema in its latter stages, but occurring as a consequence of gout, and requiring an operation to save life. The case in illustration was that of a clergyman, aged fifty-eight, who consulted the author in September, 1863, for hoarseness and aphonia, and who had been subject to gout since the age of seventeen—being seldom free from, although not actually a martyr to, the disease. He drank a bottle of sherry daily. His voice, always powerful, was equal to three octaves; and he had worked hard at his vocation. The varying aphonia and hoarseness had been present eighteen months, following forcible exertion of the voice in his church when suffering from a cough. He had been comparatively well otherwise, but had taken much colchicum for his gout. Latterly cough had been persistent, with pain in the throat, and liability to take cold. The voice was decidedly hoarse and rough, though low in tone, and sounded croupy, and as if there was obstruction within the larynx. The laryngoscope showed pendency of the epiglottis, chronic tumefaction and redness of the interior of the larynx, and distinct folds or swellings of the membrane below the vocal cords in the subglottic space. Under topical and general treatment all this improved, but the subglottic swellings remained ill defined, though distinctly visible on the right side. In April, 1864, he had great dyspnœa, associated with bronchitis; and had been ill again with his throat for some weeks, the result of cold and gout together. The glottis was now found so much contracted, and the obstruction from œdema so great in the subglottic region, that tracheotomy was performed by Mr. Holthouse, with immediate relief, although done under difficulties from the shortness of the neck and the almost steel-like ossification of the rings of the trachea. In a little while he returned to his home in the country, and went about as usual. He was still subject to gout, and frequent attacks of bleeding from the wound in the neck. In the beginning of 1865 cancerous disease showed itself in the neck, throat, and larynx. On March 23 the disease opened into the pharynx, and a fistula formed, which allowed liquids and solids to pass into the trachea, proving fatal on May 17. After death, a large passage was found between the larynx and the fundus of the pharynx. The larynx was blocked up with scirrhous masses, and in the subglottic space the irregular growths or prominent folds at first seen were blended with the cancer. All the viscera were healthy. The author had no doubt that the subglottic disease was originally fibrinous œdema, induced by the gout, which had attacked the larynx.

Mr. Bruce remarked that there was extreme hardening of the same parts in the subject (gouty) he was using for operative Surgery.

Dr. Greenhow asked if this was true gouty disease of the larynx. He had seen several cases, but was accustomed to associate with them the peculiarities of intense redness and slight swelling, and that they entirely recover with an attack in the extremities. He believed the disease was rather malignant.

Dr. Green asked why the subglottic swelling was described as fibrinous.

Dr. R. Thompson asked if the urine had been examined.

Sir Duncan Gibb, in reply, stated he had no doubt of the gouty nature of the disease, of which he held that the pendent epiglottis was an indication. He called the deposit fibrinous from dissection, and following Cruveilhier. The urine always contained much uric acid and oxalate of lime.

THE CLINICAL SOCIETY.

Friday, April 24.

Dr. C. J. B. Williams, Vice-President, in the Chair.

The following gentlemen were elected Members:—Dr. Falconer, Dr. Protheroe Smith.

Mr. Callender (for Mr. West, of Birmingham) related a case illustrating the use of accupressure after amputation of the thigh.

After some remarks by Mr. Bryant and Mr. De Morgan, the latter gentleman mentioning a plan for passing the end of the ligature thread through the soft parts away from the wound,

Mr. Callender described the condition of the parts about and in the femoral artery, upon which a needle had been applied.

Mr. Maunder and Mr. Arnott referred to some remarks made by Mr. Lee at the last meeting of the Society, with reference to the union of the cut ends of the vessels.

A report by Dr. C. J. B. Williams and Dr. Sanderson was read on Drs. Cockle and Anstie's case of

DISEASE OF THE THORACIC AORTA.

The patient, a corpulent man of 40, had suffered for many years from giddiness and vertical headache; of late these distressing symptoms had increased, in addition to which his powers both of body and mind had become impaired to such an extent that he was incapable of following any occupation. With reference to the physical signs, the following facts were observed by the author and verified by the reporters, viz.:—Extreme feebleness of the radial pulse, absence of sensible pulsation in other arteries; natural extent of præcordial dulness; dulness with expansive pulsation of space as large as a florin, situated immediately to the right of the sternum between the second and third cartilages. A systolic bruit heard over the whole of the front of the chest, loudest at the seat of aneurismal impulse; second sound of natural character, and remarkably distinct to the left of the sternum, but occasionally grating at the seat of pulsation. From these facts, the reporters concluded that the aortic valve is incompetent, that the aorta is dilated immediately above the sinuses of Valsalva, that beyond the dilatation the aorta is narrowed, that the heart is not hypertrophied, and that the general symptoms are mainly attributable to diminished supply of blood to the nervous centres. No opinion was offered as to the exact nature or origin of the obstruction, which the reporters regarded as probably antecedent to the dilatation.

A discussion followed, in the course of which Dr. Sibson, after expressing his general concurrence with the conclusions arrived at, pointed out that the position of the aortic impulse afforded evidence that the dilatation was slight; for if the aneurism had been considerable, the dulness and pulsation would have extended much further to the right of the sternum.

Mr. Bryant drew attention to the value of

TRACHEOTOMY AS A REMEDY FOR CHRONIC LARYNGITIS.

He would perform the operation at a comparatively early stage of the disease, and by so doing anticipate the risk of permanent damage to the larynx. An argument in favour of this procedure existed in the unsatisfactory results which followed other plans of treatment. It should not, however, be resorted to until a fair trial had been made of ordinary remedies: at the same time it was undesirable to leave the operation until the disease had advanced too far. Give the larynx by this operation what is termed physiological rest, and there would be good prospect of recovery.

Mr. De Morgan, after referring to a case which had been under his treatment, agreed generally with the desirability of operating in these cases at an earlier period than that usually advocated.

After Dr. Sibson had related an interesting case which had been under his observation,

Mr. Erichsen expressed his concurrence in the view taken by Mr. Bryant. He pointed out, however, the difficulty of getting patients to submit to the operation. He thought tracheotomy tended to hasten the cure of certain laryngeal affections, and in this way he anticipated much good from the operation as a directly curative agent, the disease subsiding after the trachea had been opened. The operation on an adult he regarded as a trifling affair. With reference to the tube, he used those made of platinum as requiring the least frequent removal.

Mr. Maunder hoped the attention of the Profession would be directed to the advisability of the performance of tracheotomy in certain cases at a comparatively early period of the disease.

Mr. Thomas Smith considered there was some advantage during the progress of certain local diseases in the passage of a stream of air through the larynx, for if this is prevented there is always a risk of the larynx becoming permanently closed. He doubted if any good would follow tracheotomy employed as a remedy for the cure of ulcerative diseases of the larynx, as he thought the air-passage would soon become so narrowed that the tube would have to be worn permanently.

Aftersome remarks from the President, Mr. Bryant replied.

NEW BOOKS, WITH SHORT CRITIQUES.

Bible Animals. By the Rev. J. G. Wood, M.A., F.L.S. Copiously Illustrated. Parts I to V. London: Longmans.

*** Mr. Wood's powers of graphic description are well known, and his previous works on popular natural history have given him no mean reputation in that line. The present work will not detract from it, for the illustrations are most admirable, the letter-press charmingly simple, clear and unpretentious in its meaning. The work cannot fail to be a favourite with the younger members of the community.

Trousseau's Lectures on Clinical Medicine. Translated by P. Victor Price, M.D. London and Paris, etc. London: The New Sydenham Society. Pp. 712.

*** The reappearance of a book already published requires some explanation, for the whole of this one has been brought before the public by Mr Hardwicke. Estimating rightly the importance of giving a book so fully before the Medical world, the Council of the New Sydenham Society determined on purchasing the right of publication from Mr. Hardwicke, and promised to supply as speedily as possible. It will thus be seen that the Council have departed from their original purpose which was to issue only such books as were not likely to be taken up by private enterprise; but this new plan will be the more agreeable to the members of the Society. Great caution, however will be necessary to prevent the Society from becoming competitors with any private publisher, a thing to be most sincerely deprecated. As to the merits of the book itself, they are already too well known to require a single word of praise from us, but we may say that the continuation of the translation, Dr. Bazire being now no more, will probably be from the pen of Dr. Clifford Albutt, of Leeds, a gentleman in every way qualified for the task, the one, indeed, whom Trousseau had himself selected for the purpose.

The Science and Practice of Medicine. By W. Aitken, M.D. Edin., F.R.C.P. Lond. Professor of Pathology in the Army Medical School. Fourth Edition. London: Griffin and Co. Pp. 1008 and 1072.

*** This, the ordinary text-book in most of our schools, has for the fifth time had its appearance, now in a new dress, before the medical profession. Scarcely [illegible] years have elapsed since the first edition was published, and [illegible] at the end of that time [illegible] the work [illegible] [illegible] [illegible]

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 14, 1868:—

Postock, Alfred Stedeman, Horsham, Sussex.
Campbell, John, Glenlee, Donnoway, Essex.
Clark, James Henry, Jamaica, West Indies.
Pender, William Fuller, Belmont, Sutton, Retford.
Petsey, William Henry, 7, Langes street, Derby.

The following gentlemen also, on the same day, passed their First Examination:—

Abbott, George, Guy's Hospital.
Collet, Augustus Henry, Guy's Hospital.
Marsh, John Wilford, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DOWSE, THOMAS S., M.D.—Resident Medical Officer, Charing-cross Hospital.

DUKES, CLEMENT, M.R.C.S.E., L.S.A.—House-Surgeon to the Hospital for Sick Children, Great Ormond street, Bloomsbury.

FLEMING, JOHN GIBSON.—Representative (re-elected) of the Faculty of Physicians and Surgeons of Glasgow, in the General Medical Council.

LITTLE, CHARLES E., M.D.—Physician-Accoucheur's Resident Assistant, Charing-cross Hospital.

PATON, JOHN WILLIAM, M.B.—Resident Medical Officer to the Royal Hospital for Sick Children, Edinburgh.

SMITH, C. J. HARDY, M.R.C.S., L.S.A.—House-Surgeon to the Norfolk and Norwich General Infirmary, vice G. H. Brown, M.R.C.S., L.S.A., resigned.

TOOGE, THE CHARLES B., M.D.—Resident Surgical Officer, Charing-cross Hospital.

NAVAL AND MILITARY APPOINTMENTS.

HILL, WILLIAM G.—Surgeon to the *Rapid*.

LLOYD, JONAS RICHARD, Staff Assistant Surgeon, 58th Foot—Assistant-Surgeon, vice James Jackson, M.D., who exchanges.

RAY, SIDNEY KEYWORTH, Staff Assistant Surgeon Royal Artillery—Assistant Surgeon, vice Thomas Welsh, placed upon half pay.

RENDELL, WILLIAM JOSEPH, Staff Surgeon, 13th Foot—Surgeon, vice Surgeon-Major John Scott, appointed to the Staff.

TUTE, FRANCIS, M.D., Staff Assistant Surgeon, has been permitted to resign his commission.

To be Apothecaries to the Forces.—Dispensers of Medicine, Lewin Wyllys, Richard Cowan Mossman, Lewin Richards, David Wade Williams, John Davies, Robert George Simpson, Joseph Collin, and William James Barber.

BIRTHS.

ALDERSON.—On May 17, at 1, Avenue terrace, Bridge avenue, Hammersmith, the wife of Frederick H. Alderson, Esq., M.R.C.S. Eng., of a son.

CLARK.—On May 16, at 115, Holborn-hill, the wife of Dr. Thomas Clark, of a daughter.

GOLDSBURY.—On May 13, at Ordnance-yard, Eastbourne, the wife of W. Skipton Goldsbury, M.D., Staff Assistant-Surgeon, of a daughter.

LITHGOW.—On May 15, at 10, Royal terrace, Weymouth, the wife of James Lithgow, Esq., M.D., of a son.

MURRAY.—On May 15, at Pinbury Wells, Worcestershire, the wife of W. Berkeley Murray, M.D., of a daughter.

PAYNE.—On May 12, at Wimbledon, the wife of Charles Henry Payne, Esq., M.D., of a daughter.

THORNHILL.—On May 16, at 61, Welbeck street, W., the wife of John C. Thornhill, M.D. Lond., of a daughter.

WILLOUGHBY.—On May 14, at 8, Oakland villas, Redland, Bristol, the wife of Edward P. Willoughby, L.R.C.P., of a son.

MARRIAGES.

ADAM—FRASER.—On May 7, at Strathdon, by the Rev. R. K. Rose, William Haworth Adam, Esq., Surgeon Royal Navy, eldest son of the late William Dawson Adam, Esq., Cambridge, to Charlotte, eldest daughter of Major-General Simon Fraser, Overton house, Avonvale.

BULLOCK—WEBB.—On May 12, at Hannah-street Church, by the Rev. Robert Harrison, M.A., Dr. Thomas John Bullock, of Bedford street, Russell square, Southwark, to Frances Sophia, the youngest daughter of the late William Webb, Esq., of Stoney hall, Hemmington, Hants. No cards.

BURROWS—HOUSLOW.—On March 16, at the Cathedral, Demerara, by the Rev. W. G. G. Austin, garrison chaplain, Frederic W. L. Hodder, Esq., M.D., M.R.C.S. Eng., Staff Assistant-Surgeon, third son of E. M. Burrows, Esq., M.D., F.R.C.S. Eng., of Toronto, Canada, to Emma Jane, second daughter of Thos. Hounslow, Esq., R.E. Civil Staff.

GRAHAM—DESSE.—On April 9, in All Saints' Church, Berbice, British Guiana, West Indies, by the Rev. Francis J. Wyatt, rector, Edmund Clerke Graham, Esq., M.D., C.M., second son of the late Henry Graham, of Annick, in the County of Northumberland, England, to Elizabeth, only daughter of Anthony Desse, Esq., of Mickerie, colony of Surinam.

SUTCLIFFE—ROBINSON.—On May 14, at the Parish Church, Halifax, by the Rev. W. Sutcliffe, M.A., Henry Sutcliffe, M.R.C.S., of West Bromwich, to Mary Jane, youngest daughter of A. Robinson, the Grange, Hebden-bridge.

TOMKIN—BECKHAM.—On May 19, at St. George's, Bloomsbury, by the Rev. B. R. Jacobson, M.A., John Boyce Tomkin, solicitor, second surviving son of the late Thos. Tomkin, Esq., M.D., of Witham, Essex, to Mary Caroline May Ann, youngest daughter of the late Captain Horatio Beckham, Her Majesty's 43rd Regiment. No cards.

WALKER—BOULTON.—On May 19, at Aston Church, by the Rev. J. W. Marshall, Mr. R. P. Walker, Surgeon, of Birmingham, to Emily Louisa, youngest daughter of Thomas Boulton, Esq., of Fern Lodge, Brandsworth. No cards.

DEATHS.

FLETCHER, THOMAS, M.R.C.S., on May 8, at the Crescent, Kingsland road, in the 63rd year of his age, deeply and deservedly lamented by his relatives and friends.

HARRISON, WILLIAM MARTIN, M.R.C.S., on May 9, at Sunning-hill, Berks, late of Ewell, Kingston hill, Chertsey, in his 67th year. Friends will kindly accept this intimation.

KINGDON, WILLIAM YOUNG, eldest and dearest son of the late Robert Kingdon, Surgeon, of Farmington, Devon, on May 1, at No. 6, Devonshire terrace, Notting hill, aged 31.

WISE, FREDERIC DOUGLAS, the much beloved and deeply regretted son of A. Wise, late Bengal Medical Service, aged 18, on April 8, at Dacca, Bengal, the residence of J. P. Wise, Esq. Friends are requested to accept this intimation.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Bengal Union.—Mr. Baydell has resigned the Fifth District; area 2002; salary £90 per annum.

Lincoln Union.—Mr. Swindin has resigned the First District, area 471; population 8000; salary £70 per annum.

APPOINTMENTS.

Dunchurch Union.—George Stockwell, L.R.C.P. and S. Edin., to the Southhill District.

Towcester Union.—Augustin E. Fry, M.R.C.S.E., L.S.A., to the Frimley District.

Warrington Union.—Charles McCaskie, M.R.C.S. Edin., L.R.C.P. Edin., to the Aston District.

NEW FELLOWS.—The following Members of the Royal College of Surgeons having been elected Fellows at previous meetings of the Council were admitted as such on the 14th instant, viz.: Messrs. Robert Pilkington Linton, of Her Majesty's Indian Army, diploma of membership dated November 16, 1832, and George Hoods, of Southport, near Liverpool, May 25, 1840.

TENBURY WATER.—Analysis made in the College Laboratory of the London University by Mr. Campbell, Demonstrator of Practical Chemistry, on one imperial gallon of the water:—

Chloride of sodium	923·52 grains.
Chloride of calcium	461·90 ,,
Chloride of potassium	38·63 ,,
Chloride of magnesium	41·81 ,,
Sulphate of magnesia	1·57 ,,
Protoxide of iron	4·89 ,,
Silica	4·54 ,,
Bromine and iodine	·84 ,,
	1476·89 ,,

A MEETING in connexion with the Association for Promoting the Extension of the Contagious Diseases Act, 1866, to the Civil Population of the United Kingdom has been held at the Cheltenham Permanent Library. Among those present were Sir Alexander Ramsay, Bart. (in the chair), Dr. Barry, Dr. Rumsey, Dr. Kerr, Major Boissier, Dr. Wilson, Dr. Williams, Dr. Abercrombie, Dr. Philson, Dr. Wright, J. Fallon, Esq., Rev. J. F. Fenn, Rev. Robert Cooke, Mr. Bubb, Captain Henry Bell, Dr. Batten (of Gloucester), Mr. J. P. Bell, and Mr. L. Winterbotham (Hon. Sec.). Speeches were delivered by Dr. Barry, Head Master of the College, just appointed Principal of King's College, London), by Dr. R. Batten (Gloucester), Dr. Rumsey, Dr. Wilson (of Cheltenham), and others.

THE SPRING MEETING OF THE NATIONAL RIFLE ASSOCIATION took place on Thursday, May 21, at Willis's Rooms, his Royal Highness the Duke of Cambridge, President of the Association, in the chair. A resolution was brought forward by Dr. Carr, of Blackheath, and seconded by Dr. Squire, regarding the present unsatisfactory Medical arrangements at Wimbledon, the Council of the Association having hitherto refused to recognise the general feeling of all Volunteer Surgeons throughout the country—namely, that the Volunteer Medical Officers should be properly represented at the camp by at least one Volunteer Surgeon and one Volunteer Assistant-Surgeon, having a Hospital of their own, and thus should be placed on these occasions on an equality with the Medical service of the army. They, of course, as on all occasions, admit that, as there are army Medical officers on duty, the P.M.O. of the camp must

of necessity, from his higher standing, be of the regular army, and that therefore he would be the responsible Medical officer of the camp, and reports and such matters should go to head-quarters through him, but that certainly he should have no power of interference in the treatment of patients in the Volunteer Hospital. There was a long and warm discussion, which was ultimately closed by the Duke of Cambridge stating that, as it was a matter involved in volunteer organisation, it would be better to bring it before the War Office, upon which Dr. Carr withdrew the resolution. The matter is thus, so far, settled, and to all appearance there will be the same arrangements at Wimbledon as last year. It is still, however, open to the Council to reconsider their decision, and accede to the wishes of so large and important a body of volunteers. Dr. Carr, in bowing to the decision of H.R.H. the Duke of Cambridge, signified that it was not the intention of the Volunteer Medical Officers to allow this matter to drop.

St. Mary's Hospital Medical School.—The distribution of Prizes and Certificates of Honour was made on Wednesday at the School of St. Mary's Hospital, by the Right Hon. Robert Lowe, M.P. The following were the Prizes and Certificates awarded:—*Winter Session*, 1867-68.—Scholarship in Anatomy, value £25: Mr. Edmund B. Owen. Prosectorship in Anatomy: Mr. H. F. E. Harrison and Mr. R. B. Anderson. Prize for Students of the First Year, value £20: Mr. Edward J. Parrott and Mr. J. F. Parsons (second Prize). Prize for Students of the Second Year: Mr. Arthur Lattey and Mr. Barton (second prize); Certificates of Honour: Mr. Vines, Mr. Harris (Physiology), and Mr. Butler (Physiology). Prize for Students of the Third Year: Mr. Hardey; Certificate of Honour: Mr. Harrison. Prize for Practical Anatomy: Mr. A. E. Hayes. *Summer Session*, 1867.—Prize for Students of the First Year: Mr. George Millson; Certificates of Honour: Mr. R. B. Anderson and Mr. Vines (Botany). Prize for Students of the First Year in Comparative Anatomy: Mr. Millson. Prize for Students in the Second Year in Comparative Anatomy: Mr. H. F. E. Harrison. Prize for Students of the Second Year: Mr. Charles W. Pratt; Certificates of Honour: Mr. H. F. E. Harrison, Mr. Bilham (Midwifery), and Mr. Hardey (Midwifery). Mr. R. Lowe, on rising to address the meeting, was received with loud cheers. While it gave him great pleasure to be the instrument through which the rewards were bestowed, there were considerations which ought to moderate the feeling of success, and very much mitigate the feeling of failure, because, after all, the thing they were in search of was not reward, but knowledge. He expressed his fear that the object of many who went to the Universities was to gain £200 a year rather than to apply themselves to the acquisition of knowledge for its own sake, and he thought one besetting danger to education in this country was that it should become sordid. Every school should be confined to its own peculiar province of teaching, and instead of requiring students to learn chemistry and botany at the Medical school, that description of knowledge ought to be previously obtained. The system of Medical education as a whole was, so far as organisation and uniformity of movement were concerned, in a singularly unsatisfactory state. While it was beneficial to have contests between the competitors, nothing could be so bad as to have differences existing between the examining bodies. A competition between the members of the different boards, each being anxious to engage the students, and induce them to come to their teachings, must tend to degrade the standard of the Medical Profession, and he suggested that the existing Medical Council should be remodelled, its numbers reduced, and its members should be the most eminent men in the Profession, and that the Council should have a superintending power, and thus be able to put an end to all examinations by competing bodies. He reminded the students that their duties were not fully performed when they had studied Medicine, but that they were called upon to advance the science itself by continuing the researches made by those who had gone before them. Medicine, unlike mathematics, had no definite limits, but required perpetual investigation.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The report of the meeting of the Metropolitan Association of Medical Officers of Health is unavoidably delayed this week.

H. L. Meymott, M.D.—Duncan and Millard.

A Provincial Fellow.—Not having been admitted, you will be unable to record your votes at the forthcoming election of Fellows into the Council. We understand, however, that there will be a meeting for the purpose of admitting those who have been unable hitherto to attend for that object. Mr Wilson is a Fellow of the Royal Society.

The Curious Librarian.—It may save some disappointment to the Fellows and Members frequenting the reading room to observe that, owing to the great number of candidates for the forthcoming first Professional examination for the Fellowship of the College, the library will be closed on Monday next, the 25th inst.

Apprentices and Druggists.—The writer of the remarks to which Mr. Phillips refers in his letter last week wishes to say that he cannot understand how his article can be taken to imply blame on the part of the Medical officers of the police, when the whole drift of it was clearly intended to show that correct diagnosis in the cases in question is very often altogether impossible. He never heard Mr. Phillips's name mentioned in connexion with Case 2 until he read Mr. Phillips's letter. No blame was imputed to any one in connexion with that case, certainly not by the writer of an article tending to prove that it is frequently impossible to tell whether a person is apoplectic or dead drunk. Perhaps by implication the police were wrongly blamed, for it appears that the "cell in Medical aid when a person is charged "insensible, "or "certainly ill from any cause." Since then, the patients are seen only by a Surgeon, it only remains that the Coroner, and the public this official represents, should bear in mind that the most skilful experts always determine to what insensibility, etc., are due. But I are glad to learn from Mr Phillips that the non-Medical Members are to enlarge their view of the matter than we gave him credit for. Still, however, unless we, it seems, still ready to add to their workets at the votes of censure on Medical men, I wish to put on record my regret in helping to convince them that the existing one of compulsorily for not making a correct diagnosis in the cases in question, the are very often probably rewarded in doing him from having done what, in the present state of Medical Science, it was, I have been impossible for any one to have done.

Mustard Emetics at the Outset of Fever.

The following cutting from an old newspaper has been sent us by a correspondent:—

Typhus Fever.—Perhaps the following mode of treating this malignant fever, published by Dr. Hamilton, of Leith, a few years since, may not be deemed inappropriate at the time of our readers. The remedy consists in the administration of mustard. "I found the favourable effect" (says Dr. B.) "I have invariably found it to proceed from the parts. I prepare a cataplasm of it, as I usually do when I administer it in the early stage of the complaint, by giving the patient (if an adult) a teaspoonful or two drachms of common mustard, mixed in a tumbler of tepid water, which in less than half an hour will produce a gentle, free, and salutary vomiting, merely disburthening the stomach of its contents, and bringing up no bile. I give the patient about a pint of tepid water to assist in the ordinary vomits. Immediately on the mustard being taken into the stomach, it produces a glow of warmth, which pervades the entire system, together with a singular sensation, that soon changes the skin from the hot, dry, and uncomfortable feel always to be met with in incipient fever, into a soft, moist, and relaxed state, which is succeeded by a gentle perspiration and the general relaxation of the functions of the digestive organs. Indeed, about four hours after the stomach has been emptied in the above manner, I have the patient (if full grown) four grains of calomel, and in two hours after a brisk purgative. With this treatment I have, in the majority of cases where the patients have applied soon enough to me during the first twenty-four hours of the accumulating, rescued them from a complaint so prevalent with all its malignant features, and, in the few instances in which I have not succeeded, the epidemic in this way. I have found that having recourse to mustard, without any exhibitions in the future stages of the complaint, enabled the nature gradually to maintain the certain recovery of the patient.

Medical Clubs.

To the Editor of the Medical Times and Gazette.

Sir,—As I have recently received a large number of letters of inquiry respecting the Medical Clubs, and I feel you will allow me a short space to answer the inquiries collectively, I hope you will allow me to state that the Club has removed from the temporary premises situated at No. 9 Stanhope Street, overlooking Hyde Park Corner. The new Clubhouse will be found more central and convenient for the members, and has been placed under the management of Mr. Webb, junior, late of the Oxford Club, who will reside on the premises. I have every confidence that the united efforts of the members will render Mr. Webb's endeavours to conduct an establishment that will have no equal, and to be satisfied with the advantages that have been offered.

May 20. I am, &c. Hugh Mayne, Hon. Sec.

Medico-Political Association.

To the Editor of the Medical Times and Gazette.

Sir,—I have been requested by a very large number of foreign graduates to ask you to be so kind as to publish the following resolution, proposed for their adoption by myself, in the hope that it may meet with the cordial co-operation and support of all whom it may concern, more especially in the face of the forthcoming meeting of the Medical Council. Perhaps I may be allowed to add that if only as the hearty concurrence not only of many influential members of the Legislature, but also not a few of those of the present Government. It is as follows:—"Provided always that graduates in Medicine of any legally constituted Foreign University already registered by virtue of Medical and Surgical qualifications, enumerated in Schedule A, shall also be entitled to have such foreign degree placed upon the Register on payment of the usual fee for registering an additional diploma." Trusting that all the foreign members of the Association of Foreign Graduates will at once join the ranks of the new and prosperous Medico Political Association,

I am, &c.

Liverpool, May 13. William Hitchman, M.D.

New Ferruginous Preparation.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—This new salt—namely, the lactate of iron and quinine—was obtained at my suggestion by a process similar to the one recommended in the British Pharmacopœia for making the citrate of iron and quinine. Instead of citric acid, strongly concentrated lactic acid is employed. The compound contains 75 per cent. of iron and 25 per cent. of quinine, and the dose is from five to ten grains. Its chemical characters are for the most part like the citrate of iron and quinine. It appears in thin scales of an olive-greenish yellow colour, and it is entirely soluble in water. In colour it differs slightly from the citrate of iron and quinine, and in being considerably more deliquescent. The solution is decidedly acid, and when treated with soda or potash it gives a reddish-brown precipitate. With ferrocyanide of potassium, it yields a blue precipitate. Theoretically, this salt appears to me to possess advantages over the citrate of iron and quinine, first because its assimilation is facilitated by the fact of its being already a lactate, and secondly because, its assimilation being easier, it may be administered in cases where the system is less inclined to tolerate the other ferruginous compounds. My reasons for this theory are founded on the hypothesis that when the ingesta of the stomach are acted on by the normal gastric secretion they are changed into lactates, and that when, from any cause, the formation of lactates is interfered with, the ingesta are imperfectly assimilated. I therefore conclude that when there exists any derangement of the digestive functions, and a ferruginous tonic is indicated, it is better to administer the lactate of iron and quinine than to give the citrate of iron and quinine, the former being already a lactate, and consequently prepared for assimilation. The therapeutic advantages of this new salt have still to be tested by practical experience and observation. Although my experience in its use is not sufficient to warrant me advocating its superiority to the citrate of iron and quinine, yet still the results in those cases wherein I have ordered it are such as to justify me in bringing it under the notice and observation of the Profession.

I am, &c.

Liverpool, 115, Shaw-street. John Woodacre Kirk, M.D.

COMMUNICATIONS have been received from—

Dr Maysmor; Mr. Chapman; Mr. A. Duncan; Dr T. J. Maclagan; Mr. Charles Brooke; Dr J. W. Kirk; Mr William Parker; Mr Oxley; Dr. Wilson Fox; Mr Winterbotham; Dr Lora Marsh; Sir Duncan Gibb; Mr. L. H. Reid; J. G. W.; Dr. Andrew Clark; Mr Spencer Wells; Dr Hughlings Jackson; Dr. Cholmeley; Mr J. Chatto; Dr A. Balmanno Squire; Dr. Wilks; Mr J. Hutchinson; Mr. A. S. Bostock; Dr. F. Clifford Allbutt; Mr. T. M. Stone.

BOOKS RECEIVED—

Bennett's Principles and Practice of Medicine—Report of the Newcastle-upon-Tyne Borough Pauper Lunatic Asylum—Morris on Irritability—Cumming's Food for Babes—Cumming's Natural and Artificial Lactation—Stillé's Materia Medica and Therapeutics, two vols.

NEWSPAPERS RECEIVED—

Liverpool Mercury—Irish Times—Medical Press and Circular.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 16, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending May 16.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending May 16.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126637	40·1	2222	1441	1268	77·2	42·1	57·5	0·00	0
Bristol (City)	167487	35·7	115	75	72	..	..	..	..	..
Birmingham (Boro')	352296	45·0	254	171	135	72·3	43·7	54·9	0·13	13
Liverpool (Borough)	500676	98·0	373	290	247	69·9	44·7	54·7	0·15	15
Manchester (City)	366835	81·8	268	208	*187	70·9	42·5	55·8	0·17	17
Salford (Borough)	117162	22·7	103	59	56	68·7	40·9	54·1	0·25	25
Sheffield (Borough)	232362	10·2	204	122	127	74·5	42·0	55·3	0·08	8
Bradford (Borough)	108019	16·4	105	55	62	..	..	..	..	..
Leeds (Borough)	236746	11·0	17	120	93	73·0	36·5	53·8	0·07	7
Hull (Borough)	108269	30·4	80	50	48	76·0	38·0	54·3	0·04	4
Newcastle-on-Tyne, &c.	127701	23·9	125	68	51	..	..	..	..	..
Edinburgh (City)	177039	40·0	145	85	85	66·7	42·0	53·3	0·40	40
Glasgow (City)	449868	88·9	376	262	268	66·1	39·1	52·5	0·52	53
Dublin (City and some suburbs)	319985	32·8	191	157	165	67·3	36·3	53·6	0·93	94
Total of 14 large Towns	6391089	34·7	4736	3163	2864 Week ending May 9.	77·2	36·3†	54·5	0·25	25
Vienna (City)	(1863) 560000	..	..	..	366	..	..	60·1†	..	..

Week ending May 9.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·895 in. The barometrical reading increased from 29·61 in. at the beginning of the week to 29·73 in. by 8 p.m. on Sunday, May 10; the changes were small till noon on Tuesday, May 12; the reading further increased to 30·18 in. by 9 p.m. on Thursday, May 14, decreased to 29·88 in. by 3 p.m. on Saturday, May 16; and was 29·91 in. by the end of the week.

The general direction of the wind was S.S.W., S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 53·3°.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 16, 1868.

BIRTHS.

Births of Boys, 1104; Girls, 1119; Total, 2223.
Average of 11 corresponding weeks, 1858-67, 1886·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	691	577	1268
Average of the ten years 1858-67	636·9	572·9	1209·8
Average corrected to increased population..	..	..	1331
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	10	3	3	5	4	2	..
North ..	618,210	4	5	7	1	9	12	2	2
Central	378,058	1	8	8	2	6	5	4	..
East ..	571,158	4	14	4	1	16	8	3	..
South ..	773,175	..	19	9	2	22	9	1	2
Total ..	2,803,989	10	56	31	9	58	38	12	4

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·893 in.
Mean temperature	57·5
Highest point of thermometer	77·2
Lowest point of thermometer	42·1
Mean dew-point temperature	50·3
General direction of wind	S.S.W., S.W.
Whole amount of rain in the week	0·09

APPOINTMENTS FOR THE WEEK.

May 23. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

Royal Institution, 3 p.m. Prof. Grant, "On Astronomy."

25. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

Medical Society of London, 8 p.m. Dr. Sansom, "A Letter on a Case of Vaccino-Syphilis." Dr. Dick will exhibit a New Form of Truss. The President, "Skulls and other Remains from a very Ancient Tumulus in the Carpathian Mountains" (sent by Major-General Lakeman). Prof. John Clay, of Birmingham, "On Non-Malignant Ovarian Tumours" (an abstract of the Fothergillian Prize Essay of the present year).

26. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 9 a.m.

Ethnological Society of London, 4 p.m. Anniversary.

Royal Institution, 3 p.m. Dr. M. Foster, "On the Development of Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Adjourned Debate on Dr. Broadbent's Paper, "Attempt to apply Chemical Principles in Explanation of the Action of Remedies." Dr. George Johnson, "Seven Cases of Removal of Morbid Growths from the Vocal Cords by Aid of the Laryngoscope." Mr. Henry Lee, "Results of Diseases of Arteries."

27. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

Hunterian Society (Council, 7 p.m.), 8 p.m. Dr. Braxton Hicks, "On the Value of the Uterine Douche in the Puerperal State."

Society for the Encouragement of Arts, Manufactures, and Commerce, 8 p.m. Meeting.

28. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Royal Institution, 3 p.m. Prof. Grant, "On Astronomy."

29. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

Royal Institution, 8 p.m. Mr. W. E. H. Lecky, "On the Influence of the Imagination upon History."

PARIS EXHIBITION, 1867.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

Fellow and late Examiner in Midwifery at the Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery and the Diseases of Women and Children at St. Thomas's Hospital; Physician to the Royal Maternity Charity; Consulting Physician to the East London Children's Hospital; Examiner in Midwifery at the Royal College of Surgeons.

Lecture XIII.

THE OPERATION OF EXTRACTION AFTER PODALIC VERSION, OR OTHER BREECH-FIRST LABOURS. THE THREE ACTS IN EXTRACTION; THE BIRTH OF THE TRUNK, INCLUDING THE CARE OF THE UMBILICAL CORD; THE LIBERATION OF THE ARMS; THE EXTRACTION OF THE HEAD.

The operation of turning being completed by engaging the pelvic extremity of the child in the brim, we have next to consider the question of delivery. This, as I have already pointed out, is a distinct operation. Nature unaided may accomplish it. It is only in her default that we are called upon to undertake it. It is very desirable that as much of this operation be trusted to Nature as possible. Our duty is to watch the progress of the labour closely, interposing aid when that progress is too slow, or when the interest of the child demands it. As a general rule, the natural forces will carry the child through with more safety than the forces of art. But, even in the most favourable breech-first labours, whether the breech or feet have originally presented or have been brought to present by art, care on the part of the Practitioner is necessary to avert certain dangers incurred by the child in its transit; and in some cases serious difficulty to the transit arises to demand the exercise of active skill.

The description I now propose to give of the operation of podalic extraction will embrace, and apply to, all the cases in which this operation is called for. We will begin with the most simple case—that in which there is no serious complication, in the shape of pelvic contraction, excessive size of the child, or resistance by the soft parts. It is either a case of inertia or one in which prompt delivery or the acceleration of labour is indicated in the interest of the mother or child.

We possess, in our hold upon a leg, a security for the further progress of delivery, of which we can avail ourselves at pleasure. In this security consists one of the main arguments in favour of podalic version. We have divided the operation of extraction into three acts—drawing down the trunk through the vulva; liberation of the arms; extraction of the head.

The *first act* is effected by simply drawing down upon the extended leg in the axis of the brim. Two rules have to be observed. The first is to draw down simply, avoiding all attempts to rotate the child upon its long axis. You must not only not make such attempts; you must even be careful not to oppose the natural efforts at rotation. This is secured by holding the limb so loosely in the hand that the limb may either rotate within your grasp under the rotation imparted to it by the rotation of the trunk, or that the limb in its rotation will carry your hand round with it. The other rule is to draw well in the direction of the axis of the brim, and especially to avoid all premature attempts to direct the extracting force forwards in the axis of the outlet.

When the breech has come to the outlet, the extracting force is directed a little forwards, so as to enable the hip which is nearest the sacrum to clear the perinæum. This stage should not be hurried. The gradual passage of the breech has been doing good service in securing free dilatation of the vagina and vulva, an essential preparation for the easy passage of the shoulders and head. When the hips have cleared the outlet, you may pass the forefinger of your left hand into the groin, and gently aid extraction by this additional hold; and, at the same time, by pressing the knee forwards across the child's abdomen, you may facilitate the liberation of the leg.

When both legs and breech are outside the vulva, you have acquired a considerable increase of extracting power. You must, however, use it with discretion. You may now draw upon both legs, holding them at the ankles between the fingers and thumb of one hand.

And if you still want more power, you can grasp the child's body just above the hips with the other hand. It is generally desirable to interpose a thin soft napkin between and round the ankles. It gives a better hold, and lessens the risk of contusion.

Fig. 63.

Fig. 63 presents the first act of extraction.

Traction must now again be directed in the axis of the brim in order to bring the shoulders through that aperture. The shoulders will enter in the same oblique diameter, back forwards, as that in which the breech traversed.

As soon as the belly comes to the vulva, your attention will be turned to the umbilical cord. This is apt to be put upon the stretch, by slipping up under the influence of friction as the body is drawn down; and, besides being stretched, it is liable to direct compression. The way to lessen these risks is to seize the cord near the umbilicus and draw down very gently a good loop; this loop should be laid where it is least exposed to pressure, and you must further take care to keep off the pressure of the vulvar sphincter upon it by guarding it with your fingers. From time to time feel the cord to ascertain if it continues to pulsate. If you find the pulsations getting feeble or intermittent, you have an indication to accelerate extraction.

The observations of May and Wigand upon this point are worthy of attention. Reasoning that the pressure suffered by the cord affects the vein more than the arteries, and hence that the access of blood to the fœtus is hindered, whilst the removal of the blood from the fœtus is little obstructed, so that a fatal anæmia results, they advise to tie the cord, as soon as the body is born, as far as the navel, and then to complete extraction. The apparent asphyxia so produced is easily remedied by the usual means. Von Ritgen says he has often done this, and affirms that when done there is little need to hurry extraction.

I refer to Lecture IV. part i. (*Medical Times and Gazette*, Sept. 21, 1867) for some observations upon the length of time a child is likely to survive after arrest of the circulation in the cord. I have there stated my belief that the prospect of a live child is very small if three or five minutes elapse before the head is born. This may be thought too narrow a limit, but certainly there is not a moment to be lost in starting aërial respiration.

The *second act* comprises *the liberation of the arms*. In the normal position of the fœtus the arms are folded upon the breast, and if the trunk and shoulders are expelled through a normal pelvis by the natural efforts they will commonly be born in this position. But if ever so little traction-force be put upon the trunk, the arms, being freely movable, encountering friction against the parturient canal as the body descends, are detained, and run up by the sides of the head. Hence

often arises a serious delay in the descent of the head, for this, the most bulky and least compressible part of the fœtus, increased by the thickness of the arms, forms a wedge which is very apt to stick in the brim. This is one great reason for not putting on extraction-force if it can be avoided. If, however, we find the arms in this unfortunate position, we must be prepared to liberate them promptly and, at the same time, without injury. It is very easy to dislocate or fracture the arms or clavicles if the proper rules are not observed. What are these rules?

The cases vary in difficulty, and therefore in the means to be adopted. In some cases the arms do not run up in full stretch along the sides of the head. The humeri are directed a little downwards, so that the elbows are within reach. In such cases it is an easy matter to slip a forefinger on the inner side of the humerus, to run it down to the bend of the elbow, and to draw the forearm downwards across the chest and abdomen, and then to bring the arm down by the side of the trunk. But many cases require far more skill.

The cardinal rule to follow is to observe the natural flexions of the limbs, always to bend them in the direction of their natural movements. The arms, therefore, must always be brought forwards across the breast. The way to do it is as follows:—Slip one or two fingers up along the back of the child's thorax, and bend the first joints over the shoulder between the acromion and the neck; then slide the fingers forwards, catching the humerus in their course, and carrying this with them across the breast or face. This movement will restore the humerus to its natural flexion in front of the body. Of course, as the humerus comes forwards the forearm follows. Your fingers continuing to glide down will reach the bend of the elbow, and, still continuing the same downward and forward movement across the child's breast and abdomen, the arm is extended and laid by the side of the trunk.

That is what has to be done. But is it indifferent *which arm you shall bring down first?* The most simple rule is to take that first which is the easiest, for when one is released the room gained renders the liberation of the second arm easy enough. Generally there is most room in the sacrum; therefore it is best to take the posterior arm first.

Now I have to describe manœuvres for overcoming the difficulties which not seldom oppose your efforts to release the arms. There are two principal ones. The first is this: You want to bring the posterior or sacral arm within reach of your finger. Carry the child's body well forwards, bending it over the symphysis pubis. The effect of this is a twofold advantage. Space is gained between the child's body and the sacrum for manipulation, and as the child's body revolves round the pubic centre the further or sacral arm is necessarily drawn lower down, commonly within reach. When the sacral arm is freed, you reverse the manœuvre, and carry the child's trunk backwards over the coccyx as a centre. This brings down the pubic arm.

Fig. 64.

Fig. 64 represents the mode of liberating the posterior or sacral arm.

Fig. 65.

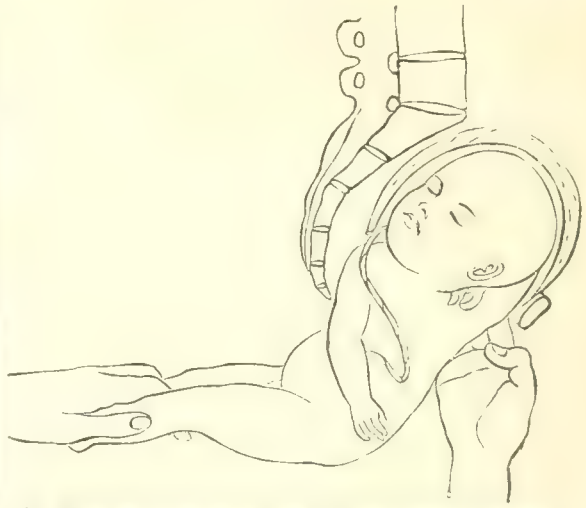

Fig. 65 represents the mode of liberating the anterior or pubic arm

The second manœuvre may be held in reserve should the first fail. To execute it you must bear in mind the natural flexions of the arms. You grasp the child's trunk in the two hands above the hips, and give the body a movement of rotation on its long axis, so as to bring its back a little to the left. The effect of this is to throw the pubic arm, which is prevented by friction against the canal from following the trunk in its rotation, across the breast. Then your object being accomplished so far, you call to your aid the first manœuvre, and bring this arm completely down. This done, you reverse the action and rotate the trunk in the opposite direction. The sacral arm is thus brought to the front of the chest, and, by carrying the trunk back, your fingers will easily complete the process.

Fig. 66.

Fig. 66 represents a mode of liberating the arms. The trunk is rotated an eighth of a circle from right to left, so as to throw the left arm across the face.

It is desirable, for reasons we shall presently explain, to avoid this rotation if possible; but under certain circumstances of difficulty it is exceedingly valuable. The rotation need not be considerable; an eighth of a circle is commonly enough, and as it is neutralised by reversal, an objection that might otherwise be urged against the manœuvre is removed.

A paramount reason why you should be careful in imparting rotation to the trunk or "giving the turns" is this: the

union of the atlas with the occipital condyles is a very close articulation; it permits flexion and extension only. The atlas forms with the axis a rotatory joint, so constructed that if the movement of rotation of the head be carried beyond a quarter of a circle, the articulating surfaces part immediately, and the spinal cord is compressed or torn. Thus, if the chin of the fœtus pass the shoulder in turning backwards, instant death results. I have no doubt that many children have been lost through oblivion of this fact. Sometimes the arm will hitch on the edge of the pelvic brim, or just above the imperfectly expanded os uteri. Never attempt, by direct hooking on the middle of the humerus, to drag it through. You would almost certainly break it. Press it steadily against the child's face, and under its chin, running your finger down as near the elbow as possible, so as to lift this part, as it were, over the obstruction.

Fig. 67.

Fig. 67 represents the result of the manœuvre begun in Fig. 65. By rotating the trunk from right to left, the left arm is thrown across the face.

The arms liberated, now begins the *third act, the extraction of the head*, often a task of considerable difficulty, and always demanding the strictest observance of the laws which govern the mechanism of labour. This act differs from the two first in that, whilst these are sometimes effected by Nature, the liberation of the head must almost always be conducted by art. When the head is last, and has entered the brim, it is very much removed from the influence of expulsive action. The uterus can with difficulty follow it into the pelvis, and the trunk, unless supported by the hands, would, by its mere *vis inertiæ* and friction against the bed, retard the advance of the head. Moreover, this is the stage of chief danger from compression of the cord. The round head fills the brim and the cervix uteri, so that the cord can hardly escape. It would be folly, therefore, to sit by and trust to Nature in this predicament, at the risk of losing that for which the whole operation of version and extraction has been performed—namely, the child's life. Let us suppose for a moment that the head is in the pelvis, and that you cannot extract it at once. If you can get air into the chest, which, being outside the vulva, is free to expand, there is no need to hurry the extrication of the head. You may sometimes get the tip of a finger in the mouth, and drawing this down, whilst you lift up and hold back the perineum, you may enable air to enter the chest. In this way I have kept a child breathing for ten minutes before the head was born. Another plan is to pass a catheter or other tube up into the mouth, so as to give, by means of a kind of artificial trachea, communication with the external air. But I must warn you not to trust to these or similar plans, lest the golden opportunity be irretrievably lost. The real problem is to get the head out of the pelvis.

There are two principal modes of doing this. One is to apply the forceps. This operation I have described (see *Medical Times and Gazette*, Lecture IV. part i., Sept. 21, 1867). It has been advocated by Busch, Meigs, Rigby, and others. I have practised it successfully, but think it is inferior in celerity and convenience to the second mode, by manual extraction. Remember that the head has to perform a double rotation in its progress. It must revolve round the symphysis pubis as a centre; it must rotate in the cavity on its vertico-spinal axis, so as to bring the face into the hollow of the sacrum. You must then, in extracting, respect these natural movements. You will better follow or guide these movements if you fork the fingers of one hand over the neck behind, and at the same time, holding the legs with the other hand, draw down with careful attention to the curve of Carus. If you carry the body forward too soon, you simply convert the child's head and neck into a hook or crossbar, which, holding on the anterior pelvic wall, will effectually resist all efforts at extraction.

When there is little or no resistance to the escape of the head, it is enough to support the trunk with one hand by holding it at the chest, whilst the other hand on the nucha regulates the exit of the head.

Fig. 68.

Fig. 68 represents the extraction of the head. The dotted line is the curve of Carus, which indicates the direction to be observed in extraction.

Sometimes it requires considerable force to bring the head through the brim; but whilst force will never compensate for want of skill, it is astonishing how far skill will carry a very moderate force. The modes of extricating the head under circumstances of unusual difficulty will be discussed hereafter. But before passing on I must refer to one practice commonly taught, which is, I believe, based on erroneous observation. You are told to pass a finger into the mouth, or to apply two fingers on the upper jaw, to depress the chin, in order to keep the long axis of the child's head in correspondence with the

axis of the pelvis. Now this is a piece of truly "meddlesome midwifery," because it is perfectly unnecessary. The chin is not likely to be caught on the edge of the pelvis or elsewhere, unless, by a previous piece of "meddlesome midwifery," you have been busy in "giving the turns." The truth is, Nature has taken care to arrange the convenient adaptation of means to end in head-last labour as in head-first. It is true that the occipito-spinal joint is seated behind the centre. It might, *prima facie*, appear that the occiput, forming the shorter arm of the head-lever, would tend to roll back upon the nucha. But this is not so in practice. The broad firm expanse of the occiput, forming a natural inclined plane inclined upwards, is surely caught by the walls of the parturient canal as the head descends. The greater friction thus experienced by a larger superficies favourably disposed virtually converts the shorter arm of the lever into the more powerful one; it is more retarded in its course; and therefore the chin is kept down near the breast, and therefore, again, there is no need for the obstetrist to meddle in the matter.

ON "OPTIC NEURITIS" AS A SYMPTOM OF DISEASE OF THE BRAIN AND SPINAL CORD.(a)

By T. CLIFFORD ALLBUTT, M.A., M.B. Cantab., F.L.S.
Physician to the Leeds General Infirmary, etc.

(...)

B. Anæmia of the Disk and Retina.

is [illegible] state of hyperæmia, and depends upon an emptiness of the vessels. I am sorry to see many authors, whose words have weight, using the word "anæmia" when they mean, or may mean, atrophy of the disk. It is of great importance, both for the Physician and for the ophthalmic Surgeon, to distinguish the two states, nor do I think it is often difficult to make the distinction. Anæmia of the disk is nearly always accompanied with anæmia of the retina and choroid, so that anæmic eyes light up badly; while in atrophy of the disk the choroid may be of healthy brightness. The retinal vessels, too, in anæmia, are shrunk—shrunk to a degree we should not find in commencing atrophy, and an anæmic disk never has the hard, sharp, staring look of atrophy of the third degree. In atrophy of the first and second degrees, if subsequent to neuritic changes, the retinal vessels would be rather swollen than collapsed. Then the edges of the disk in anæmia are not so sharp as in early simple atrophy, the fibrous extensions to the retina remaining uninjured, and, under a good light and with a four or five-inch lens, the fibres themselves may, in anæmia, still be detected. In atrophy they waste, and are replaced by connective elements. Atrophy, again, is generally unequal on the two sides, while anæmia is equal; and atrophy does not, as a rule, begin all over the disk at once, but invades the disk, as the arcus senilis the cornea, or works across from the outer to the inner moiety. The subjective symptoms, too, are generally different. In simple atrophy we are told of a gradually increasing amblyopia, attended with no symptoms; in anæmia, of capricious fits of darkness—of sudden blindness on rising from bed, for instance—relieved by intervals of fair sight, and instead of scotomata we hear of flashes of light, sometimes of a most painful intensity or of "muscæ volitantes." The field of vision, again, in atrophy nearly always contracts from the internal side; in anæmia there is a uniform feebleness of vision all over the field. These considerations, taken together with the history of the case and its general symptoms, will always, I believe, help us to a pretty certain conclusion.

The causes of anæmia of the disk and retinæ are the same as those of general anæmia, or the anæmia may be due to vascular spasm. The following case is a good example of the first kind of anæmia:—Mrs. M., a patient of Mr. Mann's, whom I saw last April, had a painful shock four years ago, since which time she has been profoundly anæmic. All kinds of treatment have failed to restore her. She now suffers a good deal from vertigo, numbness, and prickling in the limbs, etc. Her most painful symptom is the recurrence of fiery flashes in her eyes, so severe as to alarm her extremely. She has during the last year or two been liable also to night blindness. The back of the eyes I found extremely anæmic, the disks being like grey white paper. There was no atrophy. In these cases we have an epilepsy of the function of the retina due to anæmia, just as we have epilepsy of the function of the corpus striatum in animals bleeding to death, and as we have an epilepsy of the mental function in mania. I recently pointed out to you a man in No. 4 Ward subject to epilepsy who had "fearful flashings of fire" in his eyes by way of warning. Dr. Hughlings Jackson also has published such cases, which, in fact, have been noticed from the time of Aretæus. The occurrence of vascular spasm and paresis in a visible part like the eye is, if finally ascertained, a fact of very high interest, as it would raise our notions of a like morbid process in the brain from a probable hypothesis to a very safe inference. You know that in its effects upon function venous hyperæmia is very similar to anæmia.(b) I have related to you a case of convulsion in which I found a hyperæmic state. I found the reverse condition in another case in which I watched the disks and retinas during a long-continued status epilepticus. In this case there was marked anæmia of the disks, trespassing a little upon the neighbouring fibrous coat of the retina, and Mr. Carter, of Stroud, tells me that in such a case he once noted the same appearance.

In acute mania I once got a sight of the optic disk during the paroxysm, and found it anæmic. In a great number of maniacs I have found hyperæmia of the back of the eye during the few days following an outbreak. I have suggested that this may be a vascular paresis subsequent to a state of spasm.(c) In chorea I agree with Dr. Jackson in reporting no change in the eye.

Let us now pass on to

C. Ischæmia of the Disks.

About two years ago, I began to entertain serious doubts about the true neuritic origin of many extreme disturbances of the disks. I gradually became assured that many of the worst cases of so-called optic neuritis are really mechanical congestions—venous stases, differing essentially and importantly from inflammations. I attributed this stasis to pressure upon the cavernous sinus, and erroneously supposed that such pressure would account for all the phenomena. Being then ignorant of the German language, I was unaware that Gräfe had published similar conclusions. I afterwards found it necessary to learn German, and I then quickly found a paper by Gräfe (*Arch. Ophthalm.*, 1860, S. 111—149), where this great oculist proves that congestion and swelling of the disks with effusion are often due to vascular arrest alone. He points out, however, that this could not result simply from obstruction in the cavernous sinus, but must depend upon the concurrent action of the sclerotic ring. This unyielding ring, as I have shown you, so accurately fits the nervo-vascular trunk which traverses it that when the slightest venous arrest distends this trunk, its embrace becomes a strangulation. He shows accordingly that these congestive affections of the disk are in the first place, or are throughout, confined to that part. ["Beschränken sich die Veränderungen (starke Schwellung und venöse Stauung) nur auf das intrabulbare Sehnervende."] Many of our best descriptions of "optic neuritis" have been taken from this state of strangulation, which I would propose to call "ischæmia papillæ." This action of the sclerotic ring enables us to form most accurate opinions upon degrees of pressure within the skull, as, to use Gräfe's happy expression, "it plays the part of a multiplier" placed upon a vascular offshoot of the brain. Ischæmia of the disks may often, but cannot always, be distinguished with the mirror from optic neuritis. I shall compare the two conditions when we come to "optic neuritis," and shall now try to describe simple ischæmia papillæ in the third degree. The trunk of the nerve is unchanged, and all the morbid signs are confined to its intraocular termination. This part, we see, is greatly swollen, and it generally rises steeply on one side, and sinks gradually to the level on the other. There is some swelling also of the fibres themselves, so that they lose their

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(a) [illegible] from [illegible] Leeds School of Medicine, and revised by the Author and Dr. Sanderson. I have only to add, that the [illegible] interesting questions both of [illegible] which we [illegible] I hope [illegible] the [illegible] which [illegible] to be worked out upon [illegible] we have now [illegible].

(b) I [illegible] that there is an important distinction between partial and complete venosity in these cases. Complete anæmia, as in embolism, precedes [illegible] function, while partial anæmia, due to vascular paresis, [illegible], pressure, etc., allows of the [illegible] and [illegible] which is therefore irregularly discharged as energy. So it is also with partial and complete degrees of venosity of the nutritive blood; but to this interesting question I must return at another time.

(c) *Path. Med. Chir. Soc.*, February 25, 1868.

transparency, and the papillary region looks more coarsely fibrous than in health. Its colour is a mixture of dirty grey and red, due to the mingling of passive effusions with distended capillaries and hæmorrhages. Small patches of these extravasations from rupture are commonly found in numbers upon the disk. These morbid appearances trespass a little, but not far, upon the retina, seldom to a distance of more than half the diameter of the disk. The margin of the disk is wholly concealed by infiltration; by excessive vascularity, which gives it a mossy appearance; and by the coarsened fibrous extensions to the retina, which give a striated quality also to the peripapillary halo. The opacity of the retina rapidly ceases from this point, and there are no films or degenerative patches beyond, except perhaps streaky exudations in the course of some of the larger veins. The veins of the retina are enlarged, sometimes enormously, and they tend to become very tortuous both in the plane of observation and from before backwards; they may also be very varicose. I have never seen them ruptured in ischæmia, nor are they so much concealed by exudation as they are in neuritis. I have twice examined disks in this state with the microscope, and have found them to be as described by a few other observers. The papillæ are enlarged and thickened, and the swelling and thickening extend more or less into the fibrous layers of the retina. There is exudation into the substance of the disk, and its vessels are enlarged, distorted, and in some places thickened. There is some cell and nuclear proliferation in the course of the vessels. In the fibrous layer of the retina may be found homogeneous bodies without limiting membrane or nucleus, which probably result from the breaking up of nerve-tissue.(d)

The extraocular parts of the optic nerve are normal. What we find, then, is some "inflammation" of the disk and retina immediately around it, as shown by proliferation of cells and disintegration of nerve fibres. Nor is this contrary to expectation. I do not hold with Gräfe that this inflammation results from the greater susceptibility of the congested structure to ordinary "irritations," nor that the extravasations of blood are "foreign bodies" and sources of local "irritation." I think it better to say that the "inflammatory products" are due, first, to the great disturbance or arrest of nutritive relations, and, secondly, to mechanical lesion followed by greater or less resistance. Sir W. Jenner very well describes the sub-inflammatory results of congestion of tissues in his paper upon "Congestion of the Heart."(e)

It is astonishing how changed and disfigured the optic disk and neighbourhood may become in this affection without disturbing central vision. I have lately had several such patients under my care who could read a badly printed news-sheet with ease. The same fact is strongly insisted upon by Gräfe. For this reason the condition is constantly, I may perhaps say generally, overlooked. The prognosis as to sight is also better than in descending neuritis, though both affections point but too surely to serious encephalic mischief. The microscope shows, however, that in ischæmia many more nerve fibres retain their continuity than is the case in neuritis.

(To be continued.)

ORIGINAL COMMUNICATIONS.

A CONTRIBUTION TO THE CLINICAL HISTORY OF CHOREA.

By JAMES RUSSELL, M.D., F.R.C.P.,
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Among the various causes usually assigned in explanation of the phenomena of chorea, there are two which hold a very prominent place, and one or other of these two is generally believed to be immediately concerned in determining the outbreak of the attack, although causes of a different nature may be supposed to have taken a minor part in predisposing the nervous centres to fall into the disorder. The two causes, or rather classes of causes, to which I refer are, first, circumstances which act through the blood, either by infusing into that fluid morbid products from foci of disease chiefly connected with the lining membrane of the heart, or by inducing a state of absolute or relative hyperfibrination of the blood, as in rheumatism, pregnancy, or anæmia; secondly, circumstances operating through the mental functions, especially fright.

The former of these two classes of causes, as is well known, received definite shape in the hands of the late Dr. Kirkes, who connected the occurrence of chorea specifically with inflammation of the lining membrane of the heart or with fibrinous deposits on its valves. This subject—viz., arterial contamination from the central organ of the circulation—has lately been ably amplified (though not specially with reference to chorea) by Dr. Wilks, in a highly interesting lecture published in the *British Medical Journal*, March 28.

The hypothesis of Dr. Kirkes has lately received a specific application from a hypothesis suggested by Dr. Hughlings Jackson, to the effect that the most important element in the causation of chorea consists in impaired nutrition of the corpus striatum and the neighbouring convolutions, probably through plugging of the minute arteries supplying that portion of the brain.

This suggestion, which partly takes for its foundation the views of Dr. Radcliffe which ascribe the origin of convulsion to a condition of depressed nutrition or lowered tension of nerve tissue, is suggested to Dr. Hughlings Jackson, not only by the clinical association of chorea with rheumatism and disease of the heart's valves, but also by a large view of the pathological connexion which probably subsists between certain forms of nervous disease ordinarily dissociated in our nomenclature. And again, in the case of chorea, by the analogy which seems to obtain between the process of co-ordination and arrangement to which the voluntary impulses are subjected as they emerge from the brain, in the case of the various mental and physical processes involved in speech, and the exercise of the same function as related to the muscular movements of the limbs and body, some of which are also themselves accessory to the office of giving expression to our ideas.

Independently of the important arguments which may be adduced from without in favour of this hypothesis, I cannot but think that there are certain facts in the clinical history of chorea which afford considerable support to it, and my present object is to allude to one or two of these which have come under my observation in relation to one particular period—the introductory stage of the malady: the stage to which we must look for the most important indications as to its nature and origin.

The first observation I have to make respects the *gradual manner* in which the disease establishes itself. The cases seem to be few in which the malady developes itself at once and quite suddenly; out of 100 cases of my own, I find only four in which this most rapid mode of development was observed, and, with one exception, these four were by no means the worst cases. In some of the most severe cases of the disease which have presented themselves to my notice, the early period of the malady has been remarkably prolonged; thus, in one, which ended rapidly in death after the movements had once become fully confirmed, a fortnight was occupied in the approach of these movements; in a second case, almost equally severe, but ending favourably, the movements steadily extended themselves through four days. Even if a shorter period be occupied by the initiatory stage, we are often able to trace the movements extending themselves in regular gradation. So long a period as a month may be occupied in introducing the malady. Thus one patient was not aware of the nature of her complaint during the first month, though she admitted that she had been obliged to leave her work for that length of time from inability to thread or to guide her needle. Other examples will be afforded by the cases which I shall presently quote.

Secondly, it is a well-established fact that in a large majority of cases the movements are bilateral, affecting both sides of the body, though generally in an unequal degree, but that, in a considerable though unascertained proportion, one-half of the body only is implicated, the movements being unilateral. Of my own cases, out of 97 in which the facts are stated, the chorea, in the fully developed stage, was bilateral in 68; it was unilateral in 29. Of the 29 unilateral cases, it occupied the right side in 18, the left side in 11. Again, of the 68 bilateral cases the two sides were affected to an equal degree in 30; in 18 the right side, in 15 the left side, was most affected; in the others the particular side chiefly affected is not stated; and in 12 of the last two groups the affection of one side was merely nominal.

Now, I have to add that, so far as my observation has enabled me to judge, even although the chorea may be ultimately bilateral, it commences *unilaterally* in a large majority

(d) Virchow's examinations in Gräfe's cases are to be found in the paper to which I have referred.

(e) *Med.-Chir. Trans.*, vol. xliii., quoted by Dickinson, "Albuminuria," p. 110.

of instances, and remains unilateral for a distinct, and sometimes a considerable, period of time. Of 54 cases in which the mode of access is sufficiently described to enable me to obtain information upon the matter, in 11 only did the movements begin on both sides at once, in 43 they commenced distinctly on one or other side, becoming ultimately bilateral in 22, in 21 remaining confined to one side only.

The third observation which I desire to make is connected with the last one; that the movements, both in their mode of access as well as in their relative development, when fully established, observe the rule followed in the paralysis of the ordinary form of hemiplegia from disease of the corpus striatum, at least so far as the limbs are concerned; they affect the parts supposed to be dominated by the corpus striatum, and they affect them in the same order and degree as in ordinary hemiplegia.

As is well known, in the fully established case the movements always affect the lower extremities to a much less extent than the upper. In many instances of the mild form of the malady the lower extremities seem altogether spared, the patient walking perfectly well, whilst the arms, and perhaps the face, are twisted and contorted.

One exception might perhaps be taken to the analogy just stated—that in chorea the muscles of the face and of articulation are apt to be affected in unilateral chorea to a much greater extent than in hemiplegia, whilst the muscles of the trunk are also frequently implicated — a circumstance observed in a very minor degree in hemiplegia. To this objection, however, Dr. Broadbent's explanation of the circumstances influencing the distribution of paralysis in hemiplegia seems to offer a satisfactory reply; for if the corresponding nuclei of the nerves going to the muscles of the face, chest, and abdomen communicate from each side by transverse nerve fibres, as suggested by Dr. Broadbent, and are thereby saved from sharing in the paralysis of the arm and leg, to a degree proportioned to the intimacy of this relation, we can at once understand that such an arrangement, though preserving the muscles from paralysis, would have no power to avert a tendency to spasmodic action.

The histories given by my patients indicate that the movements begin first in the upper extremity and in the face, and do not reach the lower extremity until after an appreciable, and not infrequently a considerable, interval of time. In no one of my cases is this order reversed, though in a few of them the affection of arm and leg seemed to have been contemporaneous. In the cases wherein the movements were bilateral from the outset, the same order is observed, and in the case of the face with still greater regularity than in unilateral chorea. For there appears more irregularity in the case of the facial muscles and of articulation; in the first place they are less generally affected than the muscles of the limbs, and, in the second place, they may be affected coincidently with the upper extremities, before them, or subsequently, and occasionally, if the report of the patient is to be relied on, not till a considerable period after both upper and lower extremities have been involved in the disease. In one case six weeks, in another three weeks, in a third five days were stated to have elapsed after the lower extremities had been affected with the movements of chorea before the face participated.

My present subject has no relation to the second class of causes alluded to at the opening of this communication. I would, however, just observe that the hypothesis on which I have been commenting by no means excludes the agency of causes related to the mind. The whole history of chorea, the age, sex, and antecedents of the patients, the obvious effect of mental excitement in aggravating the movements, the frequency with which the emotional element becomes exaggerated in chorea, and, above all, the diminished control which the will is able to exert over movement, and probably also over emotion, all tend to strengthen the probability that mental emotion may have its share even in developing the movements.

Admitting the obvious consideration that a fright is an occurrence very likely to be remembered, and not less likely to be arbitrarily associated with circumstances happening about the same time, and acknowledging that the apparent connexion between fright and chorea, as cause and effect, is but loose in many instances, there yet remain not a few cases in which such association cannot be set aside. Now, supposing a condition of lowered nutrition to be established in a certain part of the brain, nothing can be better calculated to develope disorder, whether of motor or mental function, than the excitement occasioned by intense emotion, and especially by fright.

I quote, in conclusion, a few illustrations from my case-book:—

1. The disease began in the left hand, whence it extended along the arm to the face. In two days the leg was also implicated.

2. The left hand was first observed to twitch, then the left eye, and subsequently, and by degrees, the entire left side, became involved.

3. On one morning the patient found herself unable to hold with her right hand. Not much movement was observed. In the evening she staggered and pulled foolish faces. Next morning the arm and leg were in a state of considerable movement.

4. Twitching was first observed in the left hand and arm; in a day or two in the left leg also.

5 The left arm was noticed to be affected one evening; a week afterwards the leg participated, and five days subsequently the face and tongue.

6. The left arm was first affected—the patient dropped things—in a day or two afterwards the leg also; and at the end of a week further twitching of the left angle of the mouth was observed.

In the following cases the movements were bilateral from the first:—

7. In the evening the eyes worked and the mouth moved oddly; next day the hands and shoulders; and on the following day the legs.

8. The movements occurred first in the limbs—they were snatched, and the patient could not hold the saucer at breakfast; next the lips and tongue were affected, with some impairment of speech; finally, the legs failed in walking.

9. Twitching began in the hands, then affected the mouth, afterwards the lower extremities. In a second attack the same order was observed; twitching of the hands and mouth first, next the body, then the legs.

The following is somewhat exceptional:—

10. It was asserted by the patient's mother that the movements commenced first in the back; then attacked the neck, and speech was affected; lastly, the arms and legs.

A CASE OF APPARENT RECOVERY FROM GENERAL PARALYSIS.

By S. W. D. WILLIAMS, M.D.,
Assistant Medical Officer, Sussex Lunatic Asylum, Hayward's Heath.

History of Case.—J. B., male, aged 25 years, single, house-painter. No hereditary taint as far as known. Admitted into Hayward's Heath Asylum November 17, 1866. Was a remarkably quiet sober young man up to about three years ago, when a change was noticed to gradually come over his habits and general conduct; he showed increased fondness for society, and was more willing to indulge in spirituous liquors, and about two months ago he became almost suddenly quite maniacal for a few hours. Although the mental exaltation soon to a great extent subsided, he has never been well since.

State on Admission.—(*a*) Mental condition:—He is in a state of considerable mental excitement, and has a very exaggerated feeling of his own personal power and importance. He talks in a loud harsh voice, with great volubility and considerable incoherence, passing from one topic to another in a rambling disconnected way—now relating his love affairs, then complaining of ill-treatment from his master, and anon expatiating on the amount and fertility of his resources, both pecuniary and intellectual. Everything is *couleur de rose* with him, and his conversation is filled with superlatives. (*b*) Bodily condition:—Looks pale and anæmic, as though he was not making good blood, and he is thin, but there is no positive physical symptom of any bodily organic lesion. Pulse 90, full, but compressible; morning temperature 98°; tongue clean. There is a certain amount of thickness observable in his speech, and when the tongue is put out there is noticeable what Dr. Maudsley describes as a fibrillar quivering or trembling of its muscles, and a tremulousness of the muscles of expression when put in action; the pupils even, and the gait tolerably erect.

Progress of the Case.—A mercurial alterative, followed by castor oil, was first given to put the secretions in a healthy state, and then the following mixture to relieve the maniacal symptoms:—℞ Liq. morph. acet. ʒ jss., tinct. digitalis ʒ iij., æther. chlor. ʒ iv., tinct. capsici ʒ j., aq. ad ʒ xij.: ʒ j. ter die s. This had the desired effect very quickly, and by January,

1867, he was much improved both mentally and physically, but still excitable, and inclined to be irrational if irritated or excited. In the following April he had a return of the maniacal symptoms, and they were treated in the same way, but were neither so strong nor of so long duration as on the previous occasion. After this second maniacal attack he began rapidly to get very stout and coarse, and had an unhealthy bloated appearance; moreover, the hesitation in speech, the tremulousness of the lips and tongue and muscles of the face, which had gradually subsided, returned with increased intensity; his gait became uncertain and shaky, and there was decided loss in the power of muscular co-ordination. This was in July. He was ordered to take 3j. of liquor hydrargyri bichloridi twice a day. In October he was decidedly improved, and in January (1868) following so much improved as to be able to work with the painter and omit the medicine. Although keeping stout, he had lost the bloated, coarse appearance, and looked extremely healthy. He had entirely regained the co-ordinate use of his muscles, could dance, play cricket, or what not, and had lost all symptoms of tremulousness about the facial or lingual muscles. He was quite rational and free from delusion, and left the Asylum on May 1. The thickness of speech did not entirely leave him.

Remarks.—I have thought the above case worthy of record, inasmuch as recovery from the symptoms by which it was marked, and which undoubtedly pointed to general paralysis of the insane, is so extremely rare that many observers believe it never happens. That this was a case of incipient general paralysis both Dr. Robertson and myself were so clearly of opinion that I informed the relatives it was so, and explained to them the almost deadly nature of the disease. All the pathognomonic symptoms, as detailed by the best observers, were present—the "délire ambitieux," the thickness of speech, the tremulous tongue and lips, the want of muscular co-ordination, the uncertain gait, the recurrent mania and its easy suppression by the use of digitalis, and, finally, the rapid increase of adipose tissue, which so frequently occurs between the primary and secondary stages of general paralysis. To our happy astonishment, these ugly symptoms gradually faded away in the order of their coming, and the patient apparently regained his normal health. Whether the bichloride of mercury had anything to do with the recovery, it is of course impossible to determine, but I must own to having often tried it previously in general paralysis with only very temporary benefit. The only thing that leads me to think it may possibly have had something to do with recovery is the fact that it appeared to exercise its alterative powers in the first place by gradually changing the patient's state of unhealthy bloated fatness, by which, although remaining as stout, his flesh yet put on an appearance of health and firmness, thus showing that the functions of the various organs of the body gradually resumed a healthy action. That the thickness in the articulation has not quite disappeared is doubtless an unfavourable symptom, and leads to a fear of relapse ultimately.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

REMOVAL OF NECROSED BONE FROM THE LOWER END OF THE FEMUR.

(Under the care of Mr. HENRY LEE.)

A REMARKABLE example of the power of enduring pain was exhibited in the operating theatre on a recent occasion. A young man, aged 19 years, submitted to the exquisitely painful operation of trephining the lower end of the femur, and the removal of a fragment of necrosed bone, without taking chloroform. The operation was a tedious one, lasting nearly three-quarters of an hour, as, in consequence of the extreme density of the bone, the trephine had to be applied several times before the fragment could be detached and removed; yet the patient showed not the slightest sign of suffering, and looked calmly on with his arms folded.

Mr. Lee afterwards made some observations upon this insensibility to suffering, which is less often witnessed now than formerly, in consequence of a very general use of anæsthetics.

RE-EXCISION OF THE KNEE-JOINT.

(Under the care of Mr. HENRY LEE.)

The operation consisted simply in carrying a transverse incision across the front of the knee-joint, and then slicing off the thickened fibrous substance which intervened between the two bony surfaces. Mr. Lee remarked that the operation had been necessitated by the want of osseous union between the ends of the tibia and femur, which, permitting very free mobility, prevented the lad from making use of his limb. This, he considered, resulted from too great care having been taken after the first operation to prevent the bones from coming into close contact with one another: careful and regulated extension had been maintained, and the result was that the wound had healed rapidly, and that remarkably little constitutional disturbance had been produced; but, instead of firm anchylosis taking place, the uniting bond was a mass of fibrous material with long spiculæ running through it. He believed that the best method that could be employed after excision of the knee was to allow the bones to be drawn closely into contact with one another, the parts being merely kept at rest by the application of a ham-splint.

CASE OF EXTENSIVE VESICO-VAGINAL FISTULA.

(Under the care of Mr. POLLOCK.)

Mr. Pollock remarked that this was in many respects a very remarkable and distressing case. After a severe labour a very large portion of the lower and posterior wall of the bladder had sloughed away, leaving a very free communication between the bladder and the upper part of the vagina. In process of time this partially contracted, but in doing so completely occluded the os uteri, so that no instrument could be passed into the cavity of the uterus. After waiting some time, in hopes that menstruation might be re-established, so as to produce some distension of the cavity of that organ, which might enable him to puncture with safety the occluded os, he had determined to relieve the miserable condition of the patient produced by the constant and involuntary escape of the urine. It was hopeless to attempt to close the opening existing between the bladder and the vagina, as, in consequence of the great loss of substance and the subsequent contraction, no plastic operation could be performed. He therefore determined to close the vaginal orifice entirely, so as to leave the bladder and vagina as a common cavity, with a single canal—the urethra—for the escape of urine. The only difficulty connected with the case was the occlusion of the os uteri and the danger lest the menstrual function should never be re-established. However, he had delayed so long that he considered it necessary to take some steps to relieve the present distress. One operation had already been performed, with the result of partially occluding the opening, and on the present occasion only three sutures were required to bring the parts into excellent apposition after the edges had been freely pared. Mr. Pollock pointed out the necessity of not allowing any urine to accumulate in the cavity, which might easily be prevented by keeping a gum elastic catheter in the bladder, and carrying an india-rubber tube from it, under the patient's thigh, into a convenient receptacle. If the tube were allowed to pass over the thigh, the urine could not escape sufficiently freely.

SAMARITAN HOSPITAL.

SIX CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from page 563.)

IN our number for February 22, 1868, we reported the 100th case in which Mr. Spencer Wells had completed the operation of ovariotomy in the Samaritan Hospital, and we added some remarks by Mr. Wells on the results obtained in those cases and in his private practice, making a total up to that time of 259 cases with a result of 180 recoveries and 70 deaths—a mortality exactly of 28 per cent. We now continue our report of his Hospital operations in the order of their performance.

Case 101.—*Adherent Multilocular Cyst—Two Tappings—Ovariotomy—Recovery.*

A married woman, 46 years of age, was sent to Mr. Wells by Mr. Wagstaff, of Leighton Buzzard, and was admitted October 23, 1867. The catamenia had ceased eighteen months before, and the enlargement of the abdomen commenced about the same time. In July, 1867, three gallons of fluid were

removed by tapping by Mr. Wagstaff. This had reformed rapidly, and she was suffering so much that Mr. Wells tapped almost immediately after her admission and removed twenty-seven pints of fluid. She was much relieved, and ovariotomy was performed on November 13, 1867. Some adhesions to the abdominal wall and to omentum were separated, a large cyst tapped and emptied, other cysts broken up within the large cyst, and the whole tumour drawn out through an opening five inches long. The pedicle, on the left side, was secured in a small clamp and kept outside. The right ovary was healthy. Eleven pints of fluid (which had formed in the three weeks since the tapping) were measured, and the solid portion of the tumour, with the colloid contents of the trabeculated interstices, weighed three pounds twelve ounces.

Dr. Junker had administered both methylene and chloroform during the operation, and the patient recovered from the anæsthesia without sickness. She only required three opiates, and recovery was uninterrupted. The bowels acted on the ninth day. The clamp came off on the tenth, and the patient returned home in good health exactly a month after operation.

Case 102.—Adherent Cyst—Three Tappings—Ovariotomy—Recovery.

An unmarried barmaid, 23 years of age, was sent to Mr. Wells by Mr. Watmough, of Christchurch, and was admitted November 2, 1867. She was larger than a woman at the end of pregnancy; a large ovarian cyst, which only dated from the previous March, and which had been tapped twice by Mr. Watmough, filling the abdomen. Thirty pints had been removed at the first, and twenty-seven at the second, tapping. The pelvis was occupied by a tumour which pushed the uterus forwards and upwards. The sound could only be passed an inch and a half. The catamenia had been absent since May. In order to ascertain if the tumour in the pelvis was the retroverted uterus or a hard portion of the ovarian tumour behind the uterus, Mr. Wells tapped on November 7, removed twenty-four pints of fluid, and ascertained that the tumour was movable and independent of the uterus. Ovariotomy was performed on November 20, 1867. Chloromethyl was given by Dr. Junker. Some firm and extensive adhesions were separated, a large cyst tapped and emptied, and, the lower portion of the tumour having been dislodged from the pelvis with some difficulty, the whole tumour was removed through an incision five inches long. A broad close connexion with the right side of the uterus was secured by a middle-sized clamp. The left ovary was healthy. Sixteen pints of fluid and three pounds of solid matter were removed. She vomited several times during the evening, but only required two opiates, recovered without a bad symptom, and left the Hospital twenty-two days after operation.

Case 103.—Adherent Cyst—Preliminary Tapping—Ovariotomy—Recovery.

A married woman, 30 years old, mother of four children, was sent to Mr. Wells, by Mr. Yate, of Godalming, and admitted November 12, 1867. In September, 1866, she was attacked by shivering and fainting fits, which recurred at intervals till her confinement in January, 1867. After this confinement she decreased but little in size, and soon began to enlarge. On admission the apex of the heart was pushed up to the third rib, and there was œdema of both legs. Mr. Wells tapped at once, and removed fifty-six pints of fluid. Three days afterwards the apex of the heart had come down to the fifth intercostal space. She improved in health, but the cyst began to fill rapidly, and ovariotomy was performed on November 27, 1867. Chloromethyl was given by Dr. Junker. Slight but extensive adhesions were separated, a large fluid cyst drawn out, opened by a scalpel, emptied, and the whole tumour withdrawn, after dislodging the pelvic portion with some little difficulty. On the left side there was a double connexion, as if by two pedicles—one formed by the Fallopian tube and broad ligament, the other by the utero-ovarian ligament much hypertrophied. The former was secured in a small clamp and the tumour cut away. The latter was torn by the weight of the tumour, and there was free bleeding. Mr. Wells had some difficulty in finding the bleeding vessel, but it was tied, and the ends of the ligature cut off short. The right ovary was healthy. Only seven pints of fluid had formed since the tapping, and the cyst weighed three pounds. There was no sickness on recovering from the anæsthesia, nor until after ninety minims of laudanum had been given. Recovery was rapid and complete, and the patient left the Hospital twenty-nine days after operation.

Case 104.—Non-adherent Cyst—Not Tapped—Ovariotomy—Recovery.

An unmarried shopkeeper, 25 years of age, sent by Mr. Ticehurst, of Hastings, was admitted November 30, 1867. Increase in size had been gradual since the previous March. The catamenia were regular. The uterus was healthy and movable; and, as the abdomen was filled by a multilocular ovarian cyst which could not be materially lessened by tapping, ovariotomy was performed on December 4, 1867. Dr. Junker administered chloroform. A non-adherent cyst was exposed by an incision four inches long, and tapped. Three or four pints of fluid escaped. The emptied cyst was then drawn out, opened, secondary cysts within it broken up and emptied, and the whole tumour withdrawn. The pedicle was secured in a small clamp, hardly more than an inch from the right side of the uterus, and was kept outside with some traction. The left ovary was healthy. Scarcely any blood was lost. Eight pints of fluid and 2 lbs. 5 oz. of solid matter were removed. The only noteworthy occurrence during the recovery was that about forty-eight hours after operation the patient became very restless and excited, and the temperature rose to 106·0°, with a pulse of 140, and respiration only 20. Violent palpitation and profuse perspiration followed, the temperature falling to 102·4°, but the pulse reaching 170. Then metrostaxis set in, and all the symptoms abated. Mr. Wells had expressed his intention to bleed from the arm if the uterine discharge did not come on. The metrostaxis continued from the third till the ninth day. The clamp was removed on the third day, the stitches on the fourth and fifth days. The patient returned to Hastings twenty-three days after operation.

Mr. Wells afterwards heard from Mr. Ticehurst that the catamenia appeared early in January, with some pain and vomiting. This was followed after some days by shivering, perspiration, and mental excitement. Mr. Ticehurst considered these symptoms as mainly hysterical, treated them accordingly, and has since written to say that the patient is quite well.

Case 105.—Multilocular Cyst—Three Tappings—Ovariotomy—Recovery.

A married woman, from Nottingham, 51 years old, sterile, was admitted December 2, 1867. The abdomen contained a multilocular ovarian cyst, the lower part of which was felt between the uterus and bladder, but the uterus was free. She had been tapped in January and September, 1866, and in June, 1867, from nine to sixteen pints of dark viscid fluid escaping at each tapping. Menstruation ceased in the summer of 1866. She had suffered for several years previously from symptoms attributed to ovarian disease.

Ovariotomy was performed December 11, 1867. After making an incision five inches long, a non-adherent cyst was tapped and emptied. It was then opened, secondary cysts broken up, and the whole drawn out after separating a coil of intestine which was adhering posteriorly. There was a broad close connexion with the left side of the uterus by the broad ligament and sigmoid mesocolon, so that a clamp could not have been kept outside without dangerous traction. Mr. Wells accordingly applied the cautery clamp of Dr. Braxton Hicks, which answered perfectly; for, after using the cautery and opening the clamp, there was no bleeding. The right ovary was healthy. Ten pints of fluid and one pound of solid matter were removed.

This patient recovered well, and left the Hospital twenty-four days after operation; but she suffered more from sickness than any of the previous patients whose cases have just been related where the clamp had been used, to whom, as may be seen, chloroform and chloromethyl had been given. This patient had chloromethyl. Mr. Wells also said that there was more free suppuration coming on *after* the wound had healed than he ever saw before. Rather a considerable abscess, which he had to open, formed near the upper part of the united wound.

Case 106.—Adherent Multilocular Cyst—Two Tappings—Ovariotomy—Recovery.

An unmarried domestic servant, 23 years old, was admitted December 14, 1867, having been sent to Mr. Wells by Mr. Tudor, of Dorchester.

The catamenia had been regular till the summer of 1866, when they suddenly ceased, and had not reappeared. Two months after this, pain in the right iliac and pubic regions came on, and the abdomen increased in size, at first slowly, but rapidly in March and April, 1867. In April ten pints of clear

fluid were removed by tapping, and three weeks after this four pints of fluid "thick like gum"

Ovariotomy was performed December 18, 1867. Chloromethyl was given by Dr. Junker. An incision large enough to admit one hand was first made between the umbilicus and pubes. Two or three pints of ascitic fluid escaped, and an adherent cyst was exposed. Some extensive adhesions to the abdominal wall were separated. A cyst was tapped, and three or four pints of fluid removed. Then this cyst was opened, and some inner cysts broken up and emptied. A large mass still remaining, the incision was extended up to the umbilicus and downwards till its length was seven inches. The tumour was then pressed out, after separating a piece of adherent omentum. A long pedicle was secured about three inches from the left side of the uterus in a middle-sized clamp. Two shreds of omentum were tied, and returned with the ends of the ligatures cut off short. The right ovary was healthy. Nine pints of fluid escaped, and the compound cyst removed weighed twelve pounds—total twenty-one pounds. There was no sickness in this case. Six opiates were required within forty-eight hours after operation. The clamp came off on the ninth day, and the bowels acted on the tenth. The patient returned into Dorsetshire twenty-four days after operation, and wrote in April to say she was as well and strong as she had ever been.

These six cases complete the number of operations performed up to the end of 1867.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, MAY 30, 1868.

THE CASE OF DR. STIRLING.

Repeated allusion has been made in these columns to the case of Dr. Stirling, and we have already detailed the facts connected with Commodore Randolph's arbitrary proceeding in sending Dr. Stirling home from the Cape. Day by day we have watched and waited for any indication of justice being tardily done, but in vain; for it would seem that the Admiralty are determined to ratify Commodore Randolph's behaviour at the expense of Dr. Stirling's good name, position, and income. That all these are affected we shall have occasion to show. That Dr. Stirling's good name and reputation are really involved is evident, for he has been summarily sent home on charges which, although they have not been proved, are still without authoritative contradiction. But although the charges have not been formally dismissed by the naval authorities, the Profession at large know well what value to place on them. No single act can be disassociated from a man's past history, and his general character must ever enter into the question as to the probability of a particular line of conduct having been adopted by him on a given occasion. Now, let us add that Dr. Stirling's character is well known and highly esteemed among naval men. He is considered to be the last man to have acted in such a manner as to justify Commodore Randolph's arbitrary proceeding in sending him home to England. We may further say that Commodore Randolph's reputation is equally well known, and that he has never, since he entered the navy, been distinguished as the meekest of men. Again, as to Dr. Stirling's official position, he fairly demands that, should he be innocent of the charge laid against him, he shall be reinstated in his post at the Cape, or that he shall be made a Deputy-Inspector and placed on the list for active service. It would seem that the naval authorities decline to do either, thereby inflicting a serious hardship on Dr. Stirling, both in position and in purse. It so happens that at the time Dr. Stirling was superseded at the Cape, he wanted but a few weeks of active service to complete his period of twenty-five years' service on full pay, whereby, on retiring, he would become entitled to a pension of about £337 per annum. With less than twenty-five years' he only becomes entitled to a little over £300. But there is this further hardship in Dr. Stirling's case, that should a man, after twenty-five years' service, be found unfit for further duty, he has granted him a pension of a pound a day. Dr. Stirling is not, however, in this position; he is as fit for duty as ever he was, so that, even although the authorities place him on the books of some ship for the week or two required to complete his twenty-five years of full-pay service—which, indeed, they can hardly refuse—he can only in retiring claim the smaller allowance.

The navy is not so rich in able and efficient Surgeons that it can thus afford to throw away the services of an officer ready and willing to do his duty. It is not our custom to back up either naval or military Surgeons when they have done wrong, and if Dr. Stirling be in this position, which we do not believe him to be, he will receive no support from us. But, on the other hand, it is cruelly unjust that a man who has done no wrong should suffer as if he has. It is not a pleasant reflection that at this day a man may raise his voice in England asking merely for justice, and that his request should be unheeded. We have reason to know that Commodore Randolph has been censured by the Lords of the Admiralty for his precipitancy in sending home Dr. Stirling without, in the first place, ascertaining their pleasure in the matter. But what kind of satisfaction is this to an injured man? A rebuke which must of necessity be a strictly private one is administered to Commodore Randolph, thereby, *ipso facto*, exonerating Dr. Stirling; but he is left out in the cold with the injury inflicted on him unrepaired, his character affected, his income narrowed, and his prospects blasted. The naval service was again beginning to attract men of some talent; there were indications that the Medical officers' rights would be vindicated by the authorities, but this sad case cannot fail to dispel the pleasant illusion, and to produce a revulsion of feeling in men's minds. No man of any self-respect can be expected after this to enter a service in which he may encounter such injustice as Dr. Stirling has received. We claim nothing more for our Medical brethren in the two services than is due to the meanest of mankind—we only ask for justice. Surely we shall not ask in vain. Should the Admiralty continue to refuse this request, it will be the duty of some independent member of the House of Commons to take action in the matter, for, properly looked at, it affects not merely naval Medical officers and Medical men generally—it really comes home to every taxpayer. The rotten state of naval administration is unfortunately too well known to all; but all men do not know that the country is now paying full naval Surgeons for doing Assistant-Surgeons' duty, the number of Assistant-Surgeons being too limited for the service to be performed. Such a flagrant act of injustice as this seems to be cannot fail to still further diminish the number of likely candidates, and so still further increase the annual cost of the naval Medical staff.

ON PROTAGON AND ITS RELATIONS IN THE ORGANISM.

Before entering into any details regarding the remarkable discovery recently announced by Liebreich of a substance to which he gives the name of Protagon, and which he regards as the essential ingredient of the brain and nerve-tissue generally, it may be as well, for the clearer understanding of the subject, to give a brief historical sketch of the chemistry of the cerebral and nervous matter. In Simon's "Animal Chemistry," published in 1842, analyses are recorded as having been made by Denis, Vauquelin, and Lassaigne, which prove that the mass of the brain, when freed as far as possible from vessels, blood, &c., consists of water, albuminates, fat-like bodies containing phosphorus, extractive matters, and salts. Subsequent analyses by L'Héritier (quoted in the English translation of Simon, 1845), Von Bibra, Schlossberger, and others, associated with the results quoted above, show that the great mass of the brain—viz., 77 per cent. (by weight)—is composed of water, while the remaining 23 per cent. consists of an admixture of probably three varieties of albuminates, averaging 9·6 per cent.; of extractive matters, averaging 1·1 per cent. (from which various known organic matters, as inosite, sarcine, xanthine, hypoxanthine, creatine, lactic acid, volatile fatty acids, uric acid (?), and, in cases of disease, leucine, urea, and glycogen, but no sugar, have been separated); inorganic matters mainly consisting of phosphates and free phosphoric acid; and fat-like bodies which constitute at least 12 per cent., or more than one-half, of the solid matter of the brain.

The large amount of phosphates and free phosphoric acid, collectively forming 95 per cent. of the ash, is due to the phosphorus contained in the brain fats, the ether-extract of which takes up the fat-like matters, yielding from 1·5 to 2·6 per cent. of free phosphorus. It has been long noticed that an overworked brain is apt to be associated with an undue excretion of phosphates in the urine. Provided there be a positive increase of phosphates in the twenty-four hours' urine—for the mere presence of a phosphatic sediment is no proof that the phosphates are excreted in excess—we have an important hint both in relation to the nature of the case and its treatment. This is the sole practical result which the chemistry of the brain has yet yielded us. Whether the discovery of the new substance protagon, which supplants all the previously known fat-like bodies except cholesterine, and simplifies in a marvellous degree the chemistry of the subject, will lead to any additional results of practical value either to the Physician or the Physiologist, time alone will show.

Previously to the year 1841, Couerbe's view regarding the brain fats was universally adopted. In addition to cholesterine, he found that there were four distinct fat-like matters, to which he gave the names of eleencephol, cerebrot, cephalot, and stearaconot. In 1841 Frémy utterly overthrew Couerbe's view (except in so far as the presence of cholesterine is concerned), and showed that his supposed new bodies were only mixtures of known substances—olein, and oleic, palmitic, and stearic acids—with albuminates and two previously unknown substances, to which he gave the names *cerebric acid* and *oleophosphoric acid*. Dr. Fr. Müller subsequently obtained from the brain a white crystalline powder to which he gave the name *cerebrin*. In many respects it resembles Frémy's cerebric acid; but of the nitrogen, sulphur, and phosphorus which Frémy found in the latter, it contained only nitrogen, and it likewise differs from cerebric acid in being insoluble in alkalies and ammonia, and in being incapable of forming salts.

A new epoch now commences in the chemistry of the brain. It is about three years since Liebreich first announced his discovery that scarcely any of the supposed fat-like matters of the brain had any actual existence. Neither cerebrin nor cerebric acid, neither lecythin(a) nor any one of the so-called phosphorus-containing fats, in reality exists in the brain, which is mainly composed of a single essential substance termed *Protagon*, whose various products of decomposition form most of the various substances which have hitherto been regarded as brain-constituents.

In order to obtain protagon from the brain, we must, in the first place, get rid of the blood by the injection of water into the carotid arteries; the brain must then be cut into thin slices, triturated, and repeatedly shaken with water and ether at 32° F. The ether takes up most of the cholesterine (which has been long recognised as an ingredient of the brain), while the water removes certain matters soluble in that menstruum. A nearly pure brain-pulp now remains, from which protagon may be readily extracted in large quantity by alcohol of 85 per cent. at 112° F. On cooling this alcoholic solution to 32° F., there is an abundant flocculent precipitate, which must be washed with cold ether till the latter ceases to extract any cholesterine. On now dissolving the protagon thus purified in dilute warm alcohol, and allowing the solution to cool, we obtain the perfectly pure substance in snow-white, microscopic, acicular prisms, arranged in radiating or star-like groups.

According to Liebreich's analysis, protagon contains, in 100 parts, carbon 66·7, hydrogen 11·7, nitrogen 2·8, phosphorus 1·2, and oxygen 17·6; and is represented by the complex formula $C_{42}H_{240}N_4PO_{44}$ (where C = 6 and O = 8). It swells very much when placed in water, forming a translucent starch-like paste, and for its solution it requires a very large quantity of water. It dissolves in strong acetic acid and in alcohol. At a temperature somewhat below 212° F., it becomes a soft plastic mass. When boiled, for at least twenty-four hours, with saturated baryta-water, it breaks up into *glycero-phosphoric acid*, a strongly alkaline base to which Liebreich gives the name *neurine*, and *fatty acids*. Glycero-phosphoric acid ($C_6H_9PO_{12}$) is formed so readily by decomposition from protagon that the presence of the latter should always be suspected wherever the acid occurs. Neurine ($C_{10}H_{13}N$) is obtained, by a process which we need not describe, in the form of fine crystalline needles. It is worthy of notice that it is isomeric with amylamine, which occurs as a product of leucine, one of the brain-constituents.(b) The fatty acids appear, from Liebreich's experiments, to be stearic acid associated with another fatty acid which is neither palmitic nor oleic acid. The following scheme may give a correct idea of the decomposition which ensues when protagon is decomposed either spontaneously or by baryta-water:—

$$\text{Protagon} = C_{42}H_{240}N_4PO_{44}$$
$$= 4C_{10}H_{13}N + C_6H_9PO_{12} + C_{150}H_{279}O_{32}$$

= 4 at. of neurine + 1 at. glycero-phosphoric acid + remainder, consisting of fatty acids, stearic acids, etc.

From what has been as yet ascertained regarding the products of decomposition of protagon, it is not improbable that Frémy's cerebric acid is a mixture of protagon and the fatty acids which it yields, while Müller's cerebrin is probably a compound of nitrogenous neurine with a non-nitrogenous fatty acid. On these assumptions the presence of nitrogen and phosphorus in the cerebric acid, and the presence of nitrogen and the absence of phosphorus in the cerebrin, are accounted for.

Since protagon yields glycerine, the decomposition of the former may account for the presence in a not quite fresh brain of some of the products of decomposition of the latter—as, for example, propionic acid, butyric acid, formic acid, and acetic acid.

Dr. W. Kühne—from whose chapter on the Chemistry of

(a) Lecythin is the name given by a French chemist—Gobley—to a body obtained from brain contituent which, on decomposition, was supposed to yield oleic, palmitic, stearic, and phosphoglyceric acids.

(b) It has been recently announced that neurine has been formed synthetically by the distinguished French chemist Wurtz.

the Brain, in his "Manual of Physiological Chemistry"(c) (just completed), we have borrowed freely in this article—points out that protagon possesses many properties which admirably qualify it to act as an important constituent of the medullary matter of the nerve-fibres. It is by no means improbable that the presence of protagon crystals in the medullary matter may serve to explain the phenomena recently observed by Klebs on examining a transverse section of a nerve by polarised light. Again, the tendency of protagon to sink in water till a starch-like paste is produced, which is translucent in thin layers, with a glistening appearance, and the slowness with which the mass dissolves in an excess of water, closely correspond with the facts observed by histologists in their study of the medullary matter.

Many of our readers may perhaps recollect that about a dozen years ago Virchow announced the discovery, in various healthy and morbid structures, of a substance closely allied to, if not identical with, nervous medullary matter. To this substance, which he found in the nerves, spleen, yolk of egg, testes and seminal fluid of various animals, in pus, in diseased lungs, in the ovaries, the bile, etc., he gave the name *myelin*. Although it is by no means impossible that myelin may be formed from other matters—as albumen, fatty-acid salts, and fats or cholesterin—Liebreich has experimentally shown that it is readily obtained from protagon. Thus, if a little protagon be mixed with a drop of oleic acid and a little ammonia, or if it be similarly treated with the base, neurine, in place of ammonia, the most beautiful forms of myelin are developed. As undecomposed protagon is found in these mixtures, Liebreich's view that myelin is a mixture of protagon with some of its products of decomposition is most probably correct; and, as a general rule, it may be laid down that wherever myelin is found protagon is probably present also.

If these views are correct—and they are endorsed by the latest German writers on physiology and animal chemistry, as Gorup-Besanez, Hoppe-Seyler, and Ranke — they simplify in an enormous degree the complexity of the chemistry of the brain, which, independently of its water and inorganic salts, may be regarded as essentially composed of protagon, albuminates, and cholesterine, with traces (probably unimportant) of many other organic matters.

Various observations have been made during the last two or three years on the nature and occurrence of this remarkable body, protagon. L. Hermann has proved its existence in the red corpuscles of the blood, and has shown that it does not exist in the serum, while Hoppe-Seyler has detected it in the colourless corpuscles. Fischer has found it in pus-corpuscles; Kühne names it as one of the ingredients of the pulmonary tissue; and there can, we think, be little doubt that it exists wherever myelin has been detected by Virchow and others.

The chemistry of the brain has till now been in such a complete state of anarchy—each chemist in succession who devoted himself to it only contriving to demolish the labours of his predecessor in order to meet with a similar fate for his own investigations—that we sincerely trust that we have at last arrived at a result that will stand the test of further inquiry; and with this feeling we heartily welcome the accession of protagon into the list of ingredients of the animal body, and trust that it will retain its position.

(c) "Lehrbuch der physiologischen Chemie." Von Dr. W. Kuhne. 1863. Leipzig: Engleman. London: Williams and Norgate.

THE WEEK.

TOPICS OF THE DAY.

We have been favoured by witnessing some experiments performed by Dr. Richardson with a new anæsthetic agent, methylic ether. This substance is made by acting on methylic alcohol with sulphuric acid, and washing the product with solution of potash. Methylic ether is obtained as a gas, but it is very soluble in ether and alcohol. One volume of water takes up thirty-seven volumes of the gas. Its chemical composition is $(CH_3)_2O$. The specific gravity of the vapour is 23. Dr. Richardson's experiments were performed with this gas dissolved in ether to saturation. As an anæsthetic agent it differs from ordinary ether in its lower specific gravity and in the fact that blood absorbs it much more readily. (According to Dr. Richardson, blood will dissolve at 60° Fahr. as much ordinary ether as would represent twenty-two volumes of vapour. At the same temperature blood will dissolve thirty-six volumes of methylic ether vapour. At the temperature of the body, 98°, the absorption would be in nearly half these proportions—*i.e.*, the circulating blood would take up eleven volumes of common ether vapour and eighteen volumes of methylic ether vapour.) The experiments we witnessed were made on pigeons. In one case the animal was placed under a bell-jar, and the atmosphere impregnated with methylic ether; in the other the pigeon was made to inhale the vapour from a kind of respirator. In both cases complete anæsthesia was very rapidly and easily produced. The sleep was quiet and perfect. The anæsthetic appears to produce its effect without agitation or convulsion, and it is not generally followed by sickness. In the case of one of the pigeons the eyes remained open during insensibility. The rapid action of this anæsthetic in all the experiments—less than a minute—points it out as likely to be specially useful in quick operations, such as tooth-drawing, where it is desirable that anæsthesia should be rapidly produced. Dr. Richardson has experimented on himself with this substance. It was observed that in his case there was no preliminary spasm about the larynx or elsewhere, no rigidity, no alteration of colour, or lividity. The anæsthesia was perfect, was preceded by no convulsion, and followed by no sickness. During the administration the pulse rose to about 96. We hope in a succeeding number to give our readers some further details of experiments made with this very promising agent.

The Medical Practitioners' (Colonies) Bill, having passed both Houses of Parliament, only awaits the Royal Assent to become law. We congratulate the Profession at home that this Bill has not passed in its original form, as it might have been employed by colonial legislatures as an effectual bar to obstruct the entrance of British Practitioners seeking a field for practice in the colonies. In addition, by the clause which made it retrospective, it would have inflicted a direct injustice on the rights of those whose names have been placed upon the Imperial Register on the faith of the Act of 1858, which gave them the right to practise in all parts of the British Empire. We think we may fairly take to ourselves the credit of having first called attention to the objectionable points in the Bill, and we believe that the improved form in which it has passed has been, in a great measure, the fruit of the remonstrances evoked by our analysis of its contents. As it is, although British-registered Practitioners who may desire to practise in any colony will have to be registered afresh in that colony, and may have to pay a registration fee, they will be empowered to demand such registration as a right, and they will not be subjected to any examination. This is a great improvement on the former Bill, which made the privilege of practising entirely dependent on the laws which a colonial legislature might from time to time see fit to enact.

The majority which Mr. Disraeli obtained on Monday night in the Committee on the Scottish Reform Bill does not augur success for Mr. McLaren's motion to reduce the Scottish University seats to one. Surely, out of a House of between five and six hundred members, to allot nine seats to the Universities of the three kingdoms shows no excessive veneration for educational qualifications; and as five seats are already given to England, and Ireland will undoubtedly retain two, to reduce Scotland to one would be to cast a slur upon the social value of the educational distinctions of the Northern

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seats of learning, which is as undeserved as it would be impolitic.

Lord Granville's Bill for restricting the trade of chemists and druggists, which will soon be under discussion in the House of Lords, is open to all the objections which we have on former occasions urged against proposals for limiting the trade to the members of the Pharmaceutical Society. Were it to become law, it is a restriction upon a trade which requires for its exercise no more special qualifications than do many other businesses and callings which necessitate the possession of a certain amount of education and the acquirement of a certain kind of technical knowledge. It will erect the chemists and druggists into a profession, and indirectly foster and legalise counter practice; and it will inconvenience the public by diminishing the number of medicine vendors and dispensers, and confining them to the more populous towns, where a fair income will repay the cost of their expensive curriculum. If all this were necessary for the protection of the public, we would not for one moment object to it; but we do not believe it to be so. The major part of the dispensing of private surgeries and public dispensaries and Hospitals is at present performed by apprentices and assistants without qualification. Mistakes are exceedingly rare, even under these circumstances; how much rarer are they likely to be when success in business depends wholly upon accuracy! There are many trades as dangerous as that of the chemist and druggist, against which the public have no protection. To erect the chemists into a special privileged class is a retrograde step in legislation, injurious to their own interests and subversive of the acknowledged principles of commercial polity. We applaud the labours of the Pharmaceutical Society in improving the education and status of its members, but it surely is unnecessary to protect the best men by restrictions on the second-best.

The inquest recently held at Henley-on-Thames on the body of a young woman who was believed to have died in consequence of abortion criminally produced, although it failed to elicit any absolute proof, leaves no doubt that the crime was committed, and but little that death was its result. The person with whom the deceased lived as his wife stated that, without his knowledge, abortion had been procured by a Practitioner residing in the Euston-road. Surely, were the police authorities properly on the alert, this would be sufficient clue to the discovery of the guilty individual, over whom, if there were no evidence to support a criminal charge, proper surveillance might be kept. If the revelations published a short time ago by a Medical contemporary be true, the police are mainly to blame. In the Henley case, the young woman seems to have died from blood-poisoning, and the jury found that there was not sufficient evidence to prove how the blood-poisoning was caused.

The name of the lady superintendent of the nurses at the Sydney Infirmary, two of whom had charge of the Duke of Edinburgh during his recent illness, is Miss Osburn, not Miss Young as stated in Lord Belmore's despatch. The staff of six nurses was trained at St. Thomas's Hospital by means of the Nightingale Fund, and was sent to Sydney at the request of the Government of New South Wales with a view to establish a training-school for nurses in that colony.

Mr. Gladstone will not be returned as Chancellor of the University of Edinburgh without opposition. At an enthusiastic meeting of the members of the General Council of the University, presided over by Professor Douglas Maclagan, Dr. Andrew Wood proposed that the Lord Justice-General Inglis should be nominated for the Chancellorship. In the opinion of various speakers, Mr. Gladstone's candidature is open to the objection that he is not a Scotchman, that his policy is opposed to the interests of the University of Edinburgh, and that he would be too fond of speaking. Dr. Andrew Wood said at the meeting, what they wanted was not a splendid figure-head, a man who would give them a splendid oration, and would put on a resplendent gown, and then give them no more attention; they wanted a man who would give them a splendid oration and would put on a resplendent gown, and *would then sit down quietly*. . . . Mr. Gladstone nevertheless has consented to allow himself to be proposed as Chancellor, and Sir James Y. Simpson is the chairman of his committee.

The election of Principal of the same University takes place on June 18. The contest is between Sir James Simpson and Sir A. Grant. On a previous occasion we discussed the relative claims of these candidates. We will only repeat that, in our opinion, the appointment should be made from the present Professors of the University, and that of all who in this generation have reflected honour on the University and have attracted students within its walls, none have so high a claim as Professor Simpson. Like the University of London, the University of Edinburgh has obtained its greatest success as a Medical University. It is only fitting that, occasionally at least, its Principal should be its most renowned Medical Professor.

Vice-Chancellor Giffard's judgment in the case of Lyon *v.* Home will give universal satisfaction. The medium "who never took money and who is a gentleman," is made to disgorge the £60,000, and Mrs. Lyon, as a penalty for her credulity and her "innumerable misstatements," to quote the Vice-Chancellor, is made to pay her own and Mr. Williamson's costs. The judge characterises spiritualism, as presented by the evidence, as "mischievous nonsense, well calculated, on the one hand, to delude the vain, the weak, the foolish, and the superstitious; and, on the other, to assist the projects of the needy and the adventurer." A correspondent in the *Times*, who signs himself "An Embodied Spirit," repeats a statement made in 1862, that he detected a celebrated medium when producing the raps by means of a pencil on a mahogany table. Spiritualism has been so blown on that we may quietly wait for some new form of quackery by which the credulity of mankind may be cultivated and their pockets lightened.

In Professor Roscoe's fourth lecture on spectrum analysis, delivered at Apothecaries' Hall on Saturday, the 23rd inst., the subject of the different coloured lights emitted by different gases when heated by the electric spark was resumed. The spectrum of hydrogen was examined, and it was shown that the light emitted by it was made up of three lines, bright red, green, and indigo, which are coincident with three well-known dark lines in the solar spectrum—a proof that hydrogen is contained in the solar atmosphere. The changes in the colour of the light emitted by nitrogen under different conditions of rarefaction, and their supposed dependence on allotropic variations of nitrogen, were noticed, together with the fact that such variations are not observed in other substances, such as oxygen, sulphur, phosphorus, under the same circumstances. The spectra of carbon compounds when brought into the condition of heated gases was next discussed, of which cyanogen with its peach-coloured flame was selected as an example. The practical value of spectrum analysis was illustrated by its application to the flames emitted during the Bessemer process of converting cast iron into steel. Practised workmen know by changes in the colour of the flame the exact moment at which it is necessary to shut off the air. This moment coincides with the disappearance of the carbon lines in the spectrum of the flame, which becomes then continuous. The lecturer then went on to an examination of the spectra of the heavy metals. The mode in which this is accomplished is by volatilising the substance to be examined in the electric arc. The light of the electric discharge was first demonstrated, and it was shown to be emitted by ignited matter, partly by the brass of the pole and partly by watery vapour contained in the air. The different coloured spectrum-lines of different metals—copper with its green band, zinc, cadmium, silver—were demonstrated. The

concluding part of the lecture was devoted to a demonstration of the fact that fluids exert an absorptive power on the light which passes through them. The absorption spectra obtained by an examination of blood and other coloured fluids were demonstrated, and the fact that the presence of carbonic oxide in blood alters the character of the dark bands in the blood spectrum was instanced as affording reason to believe that spectrum analysis would some day prove of use in the inquiries of Medical jurisprudence. The Hall was again crowded. The two remaining lectures of the course are upon solar and stellar chemistry.

The Berlin correspondent of the *Times* states that twenty Physicians have died on the field of honour whilst combatting the famine typhus which has devastated East Prussia.

The *conversazione* of the Society of Arts will take place at the South Kensington Museum on Wednesday, June 3, and that of the Royal College of Physicians on the following Wednesday, June 10. The Professors of University College have also issued invitations to a *conversazione* on the same evening.

A very influential deputation from the Social Science Association, the British Medical Association, the Statistical Society, and the Manchester and Salford Sanitary Association, waited, on Friday last, on the Earl of Devon, Mr. Gathorne Hardy, and the Duke of Marlborough, to present a memorial respecting the present unsatisfactory condition of the laws relating to public health and kindred topics. The deputation consisted of Sir Thomas Watson, Dr. Burrows, Dr. Sibson, Dr. A. P. Stewart, Dr. Symonds (Clifton), Dr. Gairdner (Glasgow), and other leading Physicians and sanitary philosophers. The memorial and accompanying memorandum, which were of a higher character than usual, and deserve to rank as State papers, were read and commented on, and the Government were understood to promise not a Commission, but an attempt to modify and consolidate the existing laws. We shall return to this subject next week.

ABYSSINIA.

A CORRESPONDENT has favoured us with some particulars as to the number and nature of the wounds among the British portion of the force during the action of April 10 before Magdala and the assault on the 13th. On the 10th six men, all belonging to the 4th Regiment, were wounded, two dangerously—one having received a gunshot wound of left leg, and another a gunshot of left arm with fracture of the humerus; one severely, gunshot in left foot, and three slightly—two being gunshots in right hand, and one a splinter wound of eye. Captain Roberts, of the 4th Regiment, wounded by gunshot in the left elbow. Later intelligence as to the state of this officer has been supplied by one of Sir R. Napier's telegrams, mentioning that he was proceeding favourably, and that probably amputation would be avoided. During the assault on the 13th seven were wounded: two of the Royal Engineers slightly by splinters, five of the 33rd Regiment—two being severely wounded by gunshot in right leg in both cases, and three slightly—one spear wound of forehead, one contusion, and one gunshot in arm. Major Pritchard's wounds were slight injuries from splinters and contusion of right shoulder and arm. We regret to have to add that intelligence has been received of the death of another Medical officer—Surgeon-Major Deeble—who died of acute dysentery at Talanta. He was highly esteemed by his brother officers, among whom he had earned a distinguished reputation for courage and skill as an operating Surgeon. The deaths from disease of three Medical officers of the British service in Abyssinia afford only another instance of the disproportionately high rate of mortality which generally prevails among this class of officers on a campaign. The cause may probably be found in the peculiar nature of their duties, which involve constant anxiety, so seldom relieved by the excitement which lends a charm to the soldier's life, or by the relaxation and repose when "off duty" which the combatants enjoy. A Medical officer on a campaign, strictly speaking, is *never* off duty, being liable to demands for his services at all hours of the day and night, especially when on detached duty, when no one can take his place. He is thus subjected to most of the vicissitudes of service which the combatants undergo, with the addition of mental and bodily fatigue peculiar to himself. Although, on the whole, the health of the troops continues good, we learn that the reaction subsequent on the attainment of the main object of the expedition is evident in the increase of the number of cases of sickness. In our self-gratulations at the success so far attained, we must not forget that the most trying and arduous part of the expedition remains still to be accomplished—namely, the withdrawal and embarkation of the troops and stores. Where speed is the main object in order to escape the unhealthy influence of the rainy season on the seaboard, it may be a question how far it should be attained even by the abandonment or destruction of all stores non-essential to the health of the men. It is rumoured that a portion of the Bengal Brigade may have to remain during the rains. The prudence of allowing them to do so is very questionable, and we trust that such a step may not be taken unless on grounds which render it unavoidable. A sickly season at Zoulla or on the highlands would go far to tarnish the brilliancy of the success which has so far attended our arms.

CEREBRO-SPINAL MENINGITIS.

ANOTHER case of this disease, presenting the usual symptoms and terminating fatally in thirty-six hours, has occurred during the past week in the 6th Dragoon Guards, at Island Bridge Barracks, Dublin. Our readers will remember that last year several cases of this disease occurred in the same barracks and regiment, one of the first victims having been a young nobleman who was one of the junior officers of the regiment.

THE DERBY.

THE great man-show of the year took place, as usual, on Epsom Downs on Wednesday last. About 400,000 animals of various breeds are computed to have been on the ground, and a large concourse of horses was present to witness the exhibition. Gulliver's friend, the intelligent Houynhynm, would probably have amused himself, if he had been present, with speculations on the value of the creatures exposed to view in the several frames and pens erected for the purpose or wandering about loose. It would have occurred to him to ask what proportion of them are the real workers who contribute to the welfare of the community, and how many of them a mere "numerus" and "fruges consumere nati," who would not be missed if they were swept at once off the face of the earth. A strict inquiry would, it is to be feared, incline the balance very much to the side of the latter. There they are, in scores of thousands, from the more expensive inutilities shown in the principal man-pen, called the "ring," to the downright worthless and predatory Yahoo, who preys on his kind in a more open fashion. Still, so long as the sight of the drones and their amusements affords pleasure to the workers who have earned their holiday, it would be hard to say that the drones, on that day in the year at least, are absolutely useless. And the glorious sun of Wednesday, and the splendid view and air of Epsom Downs, were good for workers and drones alike.

PROFESSOR HUXLEY'S LECTURES AT THE COLLEGE OF SURGEONS ON THE INVERTEBRATA.

On Parthenogenesis or Asexual Reproduction in Insects.

THERE remain two topics of great importance to be considered before concluding the description of the class Insecta —

(1) the process of *asexual reproduction*, and (2) the occurrence of *parasitism* as observed in this class.

1. Asexual reproduction takes place under two forms. In the first case we find a *true* female, susceptible of impregnation, occasionally, at regular intervals, laying eggs without any previous fecundation. This is a true case of parthenogenesis or *virgin* development. 2. There is another form in which the creature is not a true virgin, but a *true neuter*—that is to say, of neither sex—and it does not produce real ova, but a kind of germs which are born alive.

As to the *first* process. In the silkworm moth, and in many lepidopterous insects, we occasionally find that a particular female will lay eggs without any impregnation, but in these cases it is an accidental circumstance, and, as a rule, such eggs do not become converted into living young. In others, however, this process is the rule, just as it is with Daphnia and Apus among the Crustacea. It is seen to occur in certain moths like clothes-moths, especially in the species Psyche helix. In this species the female never acquires wings. In the caterpillar form it makes itself a spiral shell, and in this it undergoes conversion into the adult form, which is wingless. This creature will produce repeated generations, extending over several years, without the access of the male, and it is only within the last few months that the male has been discovered in the form of a small moth, so that *true* males do occasionally make their appearance in these cases. A *third* case of asexual reproduction is still more remarkable; it occurs in that familiar insect the bee, probably also in the wasps and in the ants. These so-called *social* insects are distinguished not only by their combining together in great numbers, but also by the species presenting itself under three or four distinct forms. Thus, in the bee we have (1) the working bee, or imperfect female; (2) the drone or true male; and (3) the fertile female, or queen. Sometimes in the ant there are four distinct forms, for the working ants are divided into two sets—1, the ordinary workers; and 2, other workers exclusively concerned in defence; these are the *soldier* ants, they have large heads and strong mandibles. The only other insects besides those belonging to the order Hymenoptera, in which this is found to occur, are the termites or white ants, which are Orthoptera. But to confine our attention to the bees. One point is soon made out—viz., that the drones are true males, and that the queen is an indubitable female. But the true condition of the workers was only made out after much investigation. They are simply aborted females, for they possess stings (which are peculiar to females) and undeveloped rudiments of female reproductive organs.

To follow out the history of a hive, we find in early spring the comb of the last year containing a great mass of bees—workers, and one larger than the rest, the true female or queen. At this period there are no males and no larvæ. The first operation consists in the waking-up of the hive. The workers sally forth and collect honey and pollen. The hinder legs are especially modified for the collection of pollen. These workers or *neuters* separate into two divisions—one party is employed in collecting food, the other in turning it to account when collected. These latter, the well-fed ones, hang themselves up in bunches within the hive, and the nutriment they have received is converted, in their bodies, into *wax*, which is separated from the body, and passes out between the abdominal rings. After this period of rest they set to work and employ the wax to build up cells. The others return to the hive, and *regurgitate* the saccharine matter that they have collected into the cells which the other set have formed; so that, however disagreeable the idea may be, honey is really the *vomit* of bees. Other cells, at this period, are ready for the deposit of eggs, the female or queen having been impregnated the previous year. For this purpose the workers build up three different kinds of cells. The cells for the workers and the drones do not greatly differ, but those for the queens, only a few in number, are larger, and not hexagonal, but rounded. The queen marches along the rows of cells and drops an egg into the open mouth of each. The eggs are elongated, and stick to the bottom of the cells, so that every cell contains an egg. The larvæ, when they emerge from the egg, are all perfectly similar. They possess a mouth, stomach, and rectum, but there is nothing intermediate between stomach and rectum. The Malpighian vessels open where the rectum joins the stomach, and the urinary secretion accumulates in the rectum. These larvæ have no feet, and are perfectly helpless, so that they have to be fed; for this purpose the working bees store up in their crops a chylous substance which they regurgitate into the cells of the larvæ. During the first six days the food supplied to all the cells is of the same character; but after this period the queen larvæ continue to be supplied with the same form of highly elaborated food, but the others are then fed on a mixture of honey and pollen. After a time the larva changes into a chrysalis, the lid of the cell is shut down and covered over with wax, and the final changes are undergone. In the first place there is a vastly greater number of worker-cells made than queen-cells, and these workers emerge first and take their share in the work of the hive. By-and-by the young queen is ready to pass out of her cell; she then makes a kind of chirping sound. At this the old queen gets in a great rage, and tries to destroy the young one; but the workers assemble round their new queen and repel the attacks of the old sovereign respectfully but firmly. Then, on a sudden accession of rage, the old queen deserts the hive, followed by a certain number of workers, who form an escort for her. This is what is known as the first "*swarm*." The old queen with her followers found a new home. After this there is a second swarm; for it is a law that copulation cannot take place in the interior of the hive or in a *resting* condition—it must happen while they are flying in the air. The new queen, therefore, flies off, attended by a numerous escort, and they ascend in a great mass high up into the air. Here sexual congress takes place. One drone only is selected for this honour, and he has to pay dearly for it, as his reproductive organs are left behind! This copulation on the part of the queen takes place but *once*; she returns to the hive with her spermatheca full of fluid, and she may go on laying eggs for years. It has been calculated that one queen will lay 100,000 eggs, the spermatozoa derived from one sexual congress being sufficient to impregnate all these.

We have now another remarkable difficulty to solve. Why is it that out of a *worker's* cell there always proceeds a *stunted female*, out of a *drone's* cell a *male*, and out of a queen's cell a *perfect female*? Some beekeepers soon found out how the difference between the neuters and the queens was brought about. It was noticed that the hive loses its queen sometimes, and then, if not six days old, the living workers were able to convert any grub they chose into a full-grown queen simply by altering the condition of its life; they enlarge its cell, alter its shape, and continue to supply it with highly elaborated nutriment, therefore no arrest of development takes place, and a perfect female insect is formed. It is thus seen that the bees possess the power of checking the development of their young by altering the condition of their existence. This startling fact, therefore, is proved, that each working bee is a potential queen stunted in development by deprivation of nutriment.

Next as to the drones. The drones and the workers agree entirely in the nature of their food, and, with some very trifling difference, in the form and size of their cells. How, then, is the difference of sex accounted for? Careful observers saw that, under certain circumstances, their hives became useless, owing to a change in the character of the bees. For no obvious reason, nothing but workers were produced, and then these died, and nothing but drones were left, and the hive perished. Whenever this took place there was always something wrong with the queen; her eggs brought forth nothing but drones. It was then always found that the queen was either wingless

or her wings were paralysed, so that, flight being impossible, the queen was never fecundated. It was also discovered that *drone* larvæ could be produced artificially. By taking the queen and exposing her to severe cold—in short, by freezing her carefully—life was not destroyed, but nothing but drones were subsequently produced. On examining the spermatheca it was found that the cold, although not sufficient to kill the insect, had destroyed the activity of the spermatozoa. It was further observed by the Germans, who are fond of crossing German with Italian bees, that, while all the workers and the queens presented clear traces of a foreign breed, the drones showed no such trace. All these phenomena suggested the hypothesis that the queens proceeded from fecundated ova, and the drones from ova which had not been fecundated. Siebold had the happy idea to ascertain from the transparent eggs in the cells of the neuters and queens whether spermatozoa were to be seen in their interior. It was found that, while spermatozoa could be seen in the interior of the eggs of the neuters and queens, all the drones' eggs were devoid of spermatozoa. This accounts for all the phenomena. The queen is enabled to exert some action on the spermatheca whereby the fertilising fluid is prevented reaching certain ova. Therefore virgin reproduction is a normal condition of these insects, and it can be said with truth that *no drone ever had a father*.

More remarkable still are those insects which are *true* neuters—that is to say, of *no sex*. Such are the Aphides. In spring their round germs or eggs may be found in the axils of leaves. These give rise to larvæ, which are delicate, transparent, hemipterous insects. The creature is wingless as it issues from the egg. When it reaches its full size a remarkable phenomenon takes place; it gives birth to *living young*, the number of which is extremely considerable. First eight are produced one after another, then, after an interval, eight more, and so on. No males can be discovered at this time. If one of them be isolated carefully, it goes through the same process of reproduction, depending only upon the temperature and the supply of nutriment. One family was kept by a German naturalist in his study for four years, and they went on producing young viviparously without the intervention of a male. The reproductive organs of these insects, while they simulate the appearance of ovaries, are yet very different. The aperture of the vulva leads into a vaginal canal, and this divides into two tubes, and then into four; there is no trace of a spermatheca, so that they are not intended for fecundation—indeed, fecundation would be impossible. It may also be said of these insects that they develope *germs*, but not *ova*. These bodies are not eggs, but such cells as eggs spring from. In the highest chamber of the pseudo-ovarian tubes there are a number of clear cavities containing nuclei, and surrounded by clear substance. One of these escapes, dilates the lower part of the chamber, and developes a blastoderm, which goes through changes like that of the egg. This is, therefore, a sort of internal budding. The limit to this process usually depends on food and temperature. In the cold weather a remarkable modification in the reproductive organs occurs. They become converted into true males and females. The males may be winged or wingless; the females are always wingless. They possess true testes and true ovaria on the regular insect type. Copulation takes place, eggs are fecundated and deposited in the axils of leaves till the warmth of spring hatches them. This mode of reproduction is widely spread amongst the Hemiptera. This was the only plan of asexual reproduction known till Nicolas Wagner discovered another in the case of a dipterous insect, known as the Hessian fly, which is very damaging to crops. The larva is like that of a blow-fly; it bores under the bark of trees, or is found in heaps of refuse. The remarkable point which Nicolas Wagner noticed was that there were in the larva, at the posterior extremity, rounded or oval bodies getting bigger and bigger as they passed forwards, and at length taking on the appearance of larvæ like the parent. At first it appeared like a case of parasitism, like larvæ deposited in the body of another larva. But in this case there was a most perfect identity, and all the intermediate forms could be traced between the oval masses and the perfect larva. They destroy the parent by bursting through its body; and this process of reproduction goes on, living larvæ being developed within a previous one. This kind of asexual reproduction differs from that observed in Aphis in this respect; the Aphis possesses organs which have the same character as ovaria, but in this last case there are no reproductive organs at all. This asexual reproduction goes on as long as nourishment is supplied in abundance. At length, however, they become modified into two-winged insects possessing sexual organs. This case stands by itself.

Lastly, as to the parasitism of insects. The most familiar of the parasitic insects, such as lice, which live on the skin of different animals, are of no great importance compared with a more remarkable form of parasitism presented by these creatures; it is the case in which these insects are parasitic in one another. The ichneumon, for example, inserts its eggs in the larvæ or pupæ of other insects, boring through the skin by means of its ovipositors. The larva of the ichneumon developes within the cavity of the body of the other larva or pupa, and begins to eat up its *corpus adiposum*, or store of nutriment, till none of it is left for the animal it was provided for. In course of time the ichneumon larva passes into the chrysalis state; this frequently happens in lepidopterous larvæ, and collectors of these larvæ, when anxiously expecting the appearance of a butterfly from one of their pupæ, are often disappointed at seeing a hymenopterous creature come out. A still more remarkable case is seen in certain wasps. Many of these insects are in the habit of providing their larvæ with the bodies of other insects for food. But the genus Sphex has a still more remarkable habit. If the larvæ were fed with *dead* bodies, it would be necessary to procure them a *daily* supply, or their bodies would putrefy and be unfit for food. But the Sphex has hit upon a plan of supplying its young with a store of fresh meat preserved after a method of its own. It seizes on larvæ or perfect insects, and inserts its powerful sting into their thoracic ganglia; by this means it paralyses without destroying them. It then places them, one by one, in holes in the earth, and there lays its eggs in the midst of them; then it shuts the door, and the larvæ, when they are hatched, feed on the living bodies of the creatures thus prepared for them. Supposing these insects to preserve their feeling and sense, this proceeding presents an ingenuity of torture worthy the imagination of a Dante.

The last and most remarkable form of parasitism is seen in the order Strepsiptera; these are all very minute, and have one pair of posterior wings. They are parasitic on bees. The very minute larva (Stylops) attaches itself to a bee, and eventually buries itself in its body; then it attacks the corpus adiposum, upon which it feeds, and grows, and undergoes its metamorphosis. The female is converted, within the body of the bee, into a bag-like body; this is the ovarian bag, and it has a great vulval aperture. While this bag is retained within the body of the bee, the anterior extremity of the creature, with the genital aperture, is protruded from between its segments. The male is converted into a chrysalis, which gives forth a little active two-winged imago. The male simply serves the purpose of fecundation. When it sees a bee with a female stylops projecting from it, it settles on it and impregnates it. The eggs are scattered over the hairs of the bee, and are thus conveyed to other bees.

A brief account of the Mollusca, Molluscoida, and Cœlenterata brought this interesting course of lectures on the Invertebrata to a close.

FROM ABROAD.—THE ATTACK ON THE PARIS FACULTY—THE PRIVATE PHYSIOLOGICAL LABORATORIES OF PARIS.

ONE phase of that struggle between religious intolerance and liberty of thought which Mr. Gladstone lately characterised as a leading feature of our times, was exhibited last week in the French Senate by the attack of the Cardinals on the Paris Faculty of Medicine. No exaggeration of statement, perversion of real opinions, or false deduction were spared; but as they knew no attempts at repression would be tolerated, the leaders of the movement contented themselves with demanding what they termed the establishment of the liberty of teaching—that is, the liberty to set up a rival school in which doctrines only should be taught that met with clerical approbation. The motion was lost by a great majority. But this liberty of teaching is also desired by many other persons, actuated by totally different motives to those of the present agitators, who believe that the monopoly of teaching and examination enjoyed by the Faculty is a detriment to progress, and a limit to usefulness. They believe that competition in teaching will supply a useful and needed stimulus, and that a properly constituted examining board will remedy abuses contingent upon the present mode of conducting examinations. Foremost among these advocates of change is the veteran Jules Guérin, who is now publishing some very able articles on the subject in his *Gazette Médicale*. How little real liberty of action in this or any other matter is desired by the clerical party may be judged of by what is going on at Vienna, where any change of the intolerant spirit which has often disgraced a portion of that Faculty is viewed by it with great disfavour. Fortunately, the illustrious Rokitansky is, in his recently acquired post of Director of Medical Affairs, possessed of great influence, and in his hands liberty of thought and action is safe. In a recent address on his admission to the House of Nobles we find the following expressions:—

"Science and faith are two things which are absolutely different and incompatible, and it is for the individual to reconcile them. Science is based on reasons, and faith on authority, the one responding to progress, the other to fervour. We must have both science and faith; but precisely by reason of their incompatibility, instruction must be free, both as regards the one and the other, and most decidedly the School must not be under the guardianship of the Church."

It is probable that some of the teaching of the Paris Faculty, especially when interpreted by hostile critics, may seem somewhat too free; and it is certain that some of the lucubrations of hot-headed youths riding their "inexorable logic" to death are repugnant to morality. Had these, however, been left unnoticed, they would have rapidly sunk into merited oblivion, while the opposition which they have aroused has created a factitious demand for them. To suppose that the Paris Medical Faculty is infiltrated with infidelity and materialism, and that the Minister of Public Instruction encourages girls' and other schools where such doctrines are taught, may suit the views and rhetorical propensities of the Bishop of Orleans; but one would scarcely have expected that such statements would have imposed on the astute critics of the *Saturday Review*, so pungent in stigmatising any other credulity than their own. What is really meant and wished to be taught in the Paris school may be judged of by an admirable lecture delivered by M. Lefort, one of the rising members of it, on the occasion of his commencing his clinical lectures at the Cochin Hospital, and reported in the *Gazette Hebdomadaire* for May 1. The objects to be attained and the method to be observed have seldom been better told; and we regret that our want of space prevents our noticing it more fully.

We are glad that the Government at last adverted to the demands made by the French Senate for the establishment of an increased number of physiological laboratories; and if M. Duruy, the present enlightened Minister of Public Instruction, can make head against the powerful party endeavouring to expel him from office, there is little doubt much will soon be done in this direction. Indeed, much has already been done since attention has been called to the subject, for the Hospital Administration has established some laboratories, especially at Clamart, and M. Jamain has an admirable one at the Sorbonne. Several private individuals, too, have excellent laboratories which are accessible to investigators, as MM. Robin, Pasteur, Cornil and Ranvier, and Marey. Of these two last there are some interesting particulars in the *Revue des Cours Scientifiques* for May 9. The histological laboratory of MM. Cornil and Ranvier, at 2, Rue Christine, has been opened about three years, and will accommodate twenty-five persons, although never more than seventeen have as yet been working there at the same time, the numbers being recruited for the most part from French or foreign Doctors or internes and externes. The period of study generally lasts for three or four months, but some work during the entire year. Evening lectures are given to a large class for the purpose of familiarising pupils with the ordinary microscopical appearances of the various structures. At a second stage the pupils make a certain number of preparations themselves; and, at a still more advanced one, they attempt the far more difficult task of completely examining and specifying a tissue or morbid part. This last procedure of inducting the student into serious personal work is more rarely attempted in the German schools, where the large size of the classes and the short time devoted by each student to the examination of specimens preclude much beyond the mere recognition of pathological appearances.

The laboratory of M. Marey is more suited for the physiologist having special objects of investigation than for the mere student, although its distinguished proprietor gives every encouragement and assistance to young men exhibiting aptitude for the class of investigations for which he has become so famous. He had some difficulty at first in finding a habitation having sufficient space and light for his purposes; but the old theatre situated in the Rue de l'Ancienne Comédie has supplied all he wants. A spacious, well-lighted salon, forty feet square and twenty feet in height, has been fitted up with every convenience necessary. Like Ludwig of Leipzig, he has a mechanic with his workshop on the premises, who can at once execute any modification of apparatus that the exigencies of the experiment may require. Along the walls are ranged works in Medicine and physiology, and a fine collection of illustrations of the graphic method in all its varieties. Glass cases contain the various sphygmographs, cardiographs, thermographs, etc., invented by the Professor and other observers, a separate case being devoted to instruments destined to the study of animal electricity. There is scarcely a minute of the day during which one or more of these apparatus is not in operation. A small menagerie of animals supplies the victims of the numerous experiments, and among these are not forgotten "the frogs, those inseparable companions and constant *souffre-douleur* of the physiologist. Of these there are two nationalities—German and French—which are easily distinguishable from each other, the former having three times the size and vigour of the latter; so that, in the matter of physiology, it seems Germany maintains her superiority even in the production of the raw material. Nevertheless, in spite of her rich supply of scientific establishments, she does not disdain this private laboratory, and the most illustrious representatives of her physiology—as Helmholtz, Virchow, Valentin, Donders, Brücke, Kölliker, Czermak, and others—have bestowed their applause on our countryman, most of them eagerly adopting the employment of the apparatus with which he has enriched physiology."

PARLIAMENTARY.—THE MEDICAL PRACTITIONERS' [illegible] BILL—THE ROYAL SCHOOL OF MINES—THE SCOTTISH UNIVERSITIES—THE ANATOMY BILL—THE WELLINGTON TESTIMONIAL.

IN the House of Commons on Thursday, May 21, the Medical Practitioners' (Colonies) Bill was read a second time.

On Friday, in answer to a question by Mr. Neate, Sir S. Northcote said that no information had been received as to an outbreak of cholera amongst the soldiers of the second battalion of the 60th regiment, who had been recently landed in India and stationed at Fort William.

On Monday the House of Commons went into committee on the Scotch Reform Bill, and by a majority of thirty-nine accepted the plan of distribution of seats proposed by Government, amongst the provisions of which is one giving two members to the Scottish Universities, one to the Universities of Edinburgh and St. Andrews, and one to the Universities of Glasgow and Aberdeen.

The Medical Practitioners' (Colonies) Bill was read a third time and passed.

In the House of Lords on Tuesday the Artisans and Labourers' Dwellings Bill was read a second time, and, on the motion of Lord Portman, referred to a select committee.

Mr. M'Laren gave notice that, on the bringing up of the report of amendments in the Representation of People (Scotland) Bill, he would move that only one member be given to the Universities of Scotland, for the purpose of giving the other member to the city of Aberdeen or the county of Perth.

THE DISTRIBUTION OF PRIZES BY MR. LOWE AT ST. MARY'S.

(*From an occasional Correspondent.*)

Mr. Lowe distributing oblong pieces of paper, with various large characters inscribed thereon, to the students of St. Mary's Hospital, reminded us strongly—he will forgive us for saying so—of the Honourable Mr. Slumkey kissing the babies at the Eatanswill election. But as in that case there were doubtless some hardhearted electors—men without natural affections—whom this beautiful touch of nature failed to conciliate, so in this we were not surprised to hear a middle-aged gentleman somewhat morosely remark after the end of the proceedings, "For all that, I shan't give him my vote." A strong vein of satire runs through all Mr. Lowe's speeches, sometimes near the surface, sometimes more deeply hidden. In his speech last week, this vein, though of necessity for the most part kept out of sight, sprang into view here and there, as the speaker seemed scarcely satisfied with his own position, and perhaps a little wearied with hearing it repeatedly announced, with much unction, that young Mr. Such-a-one had been rewarded for learning his lesson properly, not with the Olympian wreath, but with £5. Mr. Lowe took occasion to warn his hearers that there is some danger in over-many prizes—that the risk is that education may become sordid. The thing of which we are in search is not reward, but knowledge. Using some arguments and illustrations which, as we have already used them in this journal, we need not repeat, he insisted strongly on the necessity of keeping the pursuit of knowledge free from all taint of filthy lucre, and appealed to that generosity of feeling which in some matters is so noble a characteristic of our Profession, to put forth its strength, and clear away those defects which keep us down in the social scale. In Mr. Lowe's criticisms of the Medical Council, the system of compulsory lectures, and the competition of examining bodies, we are glad to be able to agree; and when he undertakes the part of a "candid friend," and tries to let us "see oursel's as ithers see us," we can only regret that the exigencies of his position compel him to draw the picture with all too light a hand. In speaking of the cattle-plague, and comparing the accurate results of the investigations into the pathology of that disease, made at the desire and with the assistance of the Government, with the uncertain and contradictory views which pass current in regard to various human diseases, Mr. Lowe asked very pertinently why such a contrast should be allowed to exist, and threw out hints of the desirability of procuring more exact knowledge of pathology by means of Government grants, which should enable competent men to devote their whole time to the clearing up of doubtful points. We are surprised that he took no notice of a resource that lies ready to hand, in the Fellowships of the various Colleges in Oxford and Cambridge. These endowments, which are at present sinecures and utterly unproductive of good to the community, were established for purposes which may most justly be held to include that suggested by Mr. Lowe; and the best way of making them useful for the public good, as well as carrying out the spirit of the foundations, would be to utilise them in the way proposed. At present they stand on no more honourable ground than do the five-pound gratuities of St. Mary's Hospital; if treated in the proper way, they would be a most valuable national institution.

THE PATHOLOGICAL SOCIETY.

(*From a Correspondent.*)

As the Pathological Society has met for the last time during the present session, it may not be out of place to consider how far it has succeeded in advancing the general sum of human knowledge in the particular department of which it more especially takes cognisance—viz., morbid structure and its relation to morbid function. In the first place, have the results been equal to the amount of energy and zeal displayed by the members? We fear not. There is indeed no danger of the Society dying of inanition from a want of congenial pabulum; it may rather be said to have suffered from a plethora which, if not relieved by some active treatment on the part of the Council, may lead to serious results, and will most assuredly impair its usefulness and impede its advance to the higher regions of scientific study. It has unfortunately become the established practice of this Society to devour as much of the *materies medicam* as can possibly be got through in an hour and a half; and as the number of specimens has steadily increased, the time allowed for explanation and debate has been proportionately curtailed until the last few meetings have been little else than an impatient scramble to get through the list as quickly as possible; and every attempt to discuss any important question, to present in detail any new views of pathological structure, has been most ungraciously received. What inducement is there for any man to offer his best thoughts, or the results of careful study, to a society which becomes impatient if he does more than simply describe the characters of the individual specimen before him, the real interest in which may consist in the great question involved in its morphological analogies or in its mode of development. The very excellent motto of the Society, "*nec silet mors*," may soon be changed to "*vox et præterea nihil*" if the present system is to continue. We do not mean to imply that the session has been altogether a barren one. Not only has the Committee on Morbid Growths presented a series of careful reports upon the cases submitted to them—which, being drawn up upon some uniform plan, will bear the stamp of authority, and tend to some extent to clear the way for a more scientific arrangement of diseased structures than is at present possible—but several subjects of the highest scientific and practical interest have been brought forward, amongst which we may mention fibroid phthisis, the results of the inoculation of tubercle, and the experiments of Cohnheim upon the blood corpuscles. With such evidence before us of what the Society can accomplish, we regret the more to find it wasting its energies in what we may almost call pathological *battues*. The establishment of the Society had a great influence in popularising the study of morbid anatomy. Let it now endeavour to improve these matters of study, to introduce greater precision of observation among its members, and to take its stand amongst the most important institutions of the kind in Europe.

By the recent death of Dr. John Davy, the fine service of plate presented to Sir Humphry Davy just fifty years ago, in recognition of his services as the discoverer of the "safety-lamp" which bears his name, reverts to the Royal Society. Its estimated value is £2500.—*Guardian.*

REVIEWS.

Neligan's Medicines, their Uses and Administration. By Rawdon Macnamara, L.R.C.P., F.R.C.S.I., Professor of Materia Medica Royal College of Surgeons in Ireland, Surgeon to the Meath Hospital, etc. Seventh Edition. Dublin: Fannin and Co. Pp. 934.

In our "short notices" of books a few weeks since, we were unwillingly compelled to find some fault with this volume. The original work of Dr. Neligan was one of the most condensed and valuable books of its class, but the additions which Dr. Macnamara has made to it have doubled it in size, have diminished its cosmopolitan character, and have materially weakened it. The additional matter is loosely written, and is deficient in conciseness, force, clearness, and authority. Moreover, the work abounds far too much in misprints, verbal and literal; even in the table of contents in large type there are half a dozen errors. As for proper names, their correct orthography is quite beneath the writer's notice. Mr. Lloyd Bullock appears as Messrs. Bullock and Lloyd, one pharmaceutist split into two; Sir Duncan Gibb as Dr. Gibbs; Dr. George Harley as Dr. G. Harly; Dr. Rose Cormack as Dr. Rose Cormick.

The scientific part of the book is anything but deep. Thus, to take the article on anthelmintics, which is introduced by a short account of the Helminthozoa, although we can scarcely look for any extraordinarily accurate account of these beings, we should expect that some little care would be taken that they were properly described and classified; but what do we find? Not a hint that such a being as a distoma exists; even the trichina is not alluded to, still less the cystic condition of the tape-worms; whilst of the last we are assured that the only one we shall meet in practice in this country is the Tænia solium, there being no word whatever of such a being as the T. mediocanellata. Finally, the student is referred to two works on the subject, which, if not obsolete, have certainly been superseded.

In the article on "Cusso" the following sentence occurs:—"But it must be remarked that although cusso expels the tape-worm, it does not remove the diseased condition of the system on which the production of the parasite depends." What this may mean, we leave our scientific readers to interpret. We confess our inability to do so, seeing that we are believers in the direct propagation of these beings.

The tendency of the article on anthelmintics is to throw the fault of the worms upon the "host." Thus we are told that there is a peculiar condition of the intestines (*helminthiasis*) which promotes the generation of intestinal worms, and that the means best calculated for opposing this are to "keep the surface of the body warm by proper clothing," a "light but nutritious diet," etc. We are also told that persons who have suffered from worms should never eat meat which has not been thoroughly cooked, "and also that the flesh of the pig should not in any form constitute part of their diet." Does Dr. Macnamara wish us to infer that sound pork—*i.e.*, pork containing no parasites—will produce worms in persons who have once suffered, or that measly pork can be taken safely by any one?

We cannot enter into a disquisition on each article discussed by Dr. Macnamara, but must take a few at haphazard. Thus, when speaking of the effects of ipecacuan, he deals almost entirely with its action as an emetic, and with its value in dysentery. Curiously enough, he attributes its effects in the latter instance to a power of *producing an antiperistaltic action of the bowel!!* and, curiously also, he entirely overlooks the value of this drug in the treatment of tropical diseases other than dysentery. Almost the next substance discussed is mustard, and although he distinguishes between black and white mustard, he makes no distinction between their chemical constituents; in fact, he says nothing of white mustard at all, but merely tells us that black mustard contains *myronic acid* and *myrosyne*, as well as a substance termed *sinapisin*, and that these, by their mutual action, give rise to an acrid volatile oil.

In the account of cinchona and its alkaloids, so far as their therapeutical effects are concerned, much is required to bring up the information given to the standard of modern practice. The language is singularly old-fashioned and vague—*e.g.*, cinchona "is found peculiarly serviceable in those forms of debility, with great laxity of the solids, which depend on, or are attended with, profuse discharges from the secreting organs." What is laxity of the solids? The Practitioner is cautioned about administering cinchona and its alkaloids in "the debility attendant on convalescence from acute diseases," as over-excitement is apt to produce "a recurrence of febrile or inflammatory symptoms." Is it? For example, will quinine bring back a catarrh to a convalescent?

"Most Practitioners are of opinion that none of the alkaloids possess the same medicinal properties as cinchona bark, more especially in the treatment of intermittent fever!" Such a sentence as this certainly fills us with surprise; for we should write, "All Practitioners employ the alkaloid quina for its specific effects as an antiperiodic, although as a tonic the bark itself may be preferable." Not a word is said of the use of quinine in the great fevers of hot countries; nor are there any rules for its administration in neuralgia; nor do we find the word *cinchonism*. Of the *extractum cinchonæ flavæ liquidum*, it is noted, "Rarely prescribed *per se!*" Surely what a gulf such a sentence as this shows to exist between the practice of divers authorities! Has Dr. Macnamara no carbuncle, nor phlegmonous erysipelas, nor confluent small-pox, nor sloughing sore throats to treat?

The account of sulphate of potash is very singular. Not a word is said about the doses in which it has really proved an irritant poison, although very large doses are mentioned in which it may be given safely. "It is," says Dr. Macnamara, "not adapted for children, as it is apt to produce vomiting if given to them in even a moderate dose." This assertion, too, sounds strangely to us, considering that the compound of rhubarb and sal polychrest is the familiar nursery purgative with many an English Practitioner, and that it is considered almost a specific in the abdominal derangements of children. No purgative could keep its place in the nursery if it made children sick.

One use of oxalic acid mentioned by Dr. Macnamara is very rare here. From the observations of M. Nardo, he says "it is to be preferred to the other vegetable acids as a refrigerant and antiphlogistic in all acute inflammations of mucous membranes, more especially when the stomach is the seat of the disease; and from my own experience of several such cases in which I have employed it I can fully confirm this statement." It would be interesting to know what inflamed mucous membranes have been subjected to this treatment—the bronchial, conjunctival, vesical, urethral—whether inflammation of the stomach be a common disease, and what are the symptoms?

So we might go on referring to the weak points of Dr. Macnamara's book. On the other hand, some portions are well done. The account of the *modus operandi* of iron is above the mark; bismuth is well done; so are chlorate of potass, nitre, and pepsine. Enough valuable hints of Dublin practice are given to make us wish for more—*e.g.*, Mr. Hargrave's use of alkali with poppy decoction. We may say in conclusion that we hold the persistent and intolerable repetition of the *I* as one of the main blemishes which have been superadded to Neligan's work.

FOREIGN CORRESPONDENCE.

FRANCE.

The Clerical Attack on the University of France—Treatment of Lunatics.

Paris, May 27, 1868.

An English reader would probably be somewhat astonished if, on taking up the *Times*, he were to find that, in the House of Lords, his Grace the Archbishop of Canterbury had called the attention of her Majesty's ministers to the dangerous tendencies of the Medical teaching at Guy's Hospital, and had quoted extracts from Copland's Dictionary and Reynolds's "System of Medicine" to prove the atheistical tendencies of Drs. X. and Z. And his astonishment would certainly not be diminished if the Bishop of London had seized the opportunity to state that no Physician could possibly be orthodox who did not believe in the vital principle. Such, however, would have been the exact counterpart of the debate which has just taken place in the French Senate. The Professors of the Faculty of Medicine may well be proud to have attracted the marked attention of the highest political body in the State, and to find all their sayings and doings duly chronicled in its most solemn discussions. During four days Count Bismarck, Baron Beust, and Prince Gortschakow fell

into the background, and their place was filled by Professors Béhier, Broca, Robin, Vulpian, and Sée, while the superfluous wisdom of our senators was engaged in discussing systems of Medical philosophy, and tearing to pieces the reputation of scientific men.

The *liberty* of the upper branches of public instruction is the watchword of the Ultramontane party. But the Bishop of Orleans, in his last pamphlet, has distinctly expressed the views of his faction, and given a correct definition of the word liberty, as understood by his friends. The State, says he, is bound to furnish us with free universities, in which teachers, appointed by us, shall enjoy the right of expressing their opinions without let or hindrance; and, at the same time, the other establishments which the State continues to support must be closely watched, and all professors who infringe the rules of orthodoxy must be severely punished. Such, in the middle of the nineteenth century, are the views of liberty entertained by a Catholic bishop. A portion of the Catholic press go still further, and coolly propose the suppression of the University of France, in order that the whole scheme of public education may at once be thrown into the hands of the Church.

It was not of course to be expected that a body invested with political authority, and the members of which, whatever their religious creed may be, are generally endowed with a certain portion of common sense, should endorse these insane demands. The petitions were dismissed by a large majority as unfit to be taken into consideration. But one might wonder at this sudden outbreak of intolerance in this most sceptical age and country had not the Minister of Public Instruction, in his reply to Cardinal de Bonnechose, revealed the secret springs of the whole movement.

On June 6, 1867, secret orders were issued from Rome to all the Roman Catholic Bishops of Europe, enjoining them to make a strict inquiry into the faith of all parties in their respective dioceses. The results of this inquiry were to be reported to the Pontifical Court; and, however incredible the fact may appear, the order was punctually executed, at least in France. The official declarations of a minister in the Senate can leave no doubt whatever on this point.

Such, then, is the cause to which we must attribute the creation of that central agency of the French clerical party which, for months past, has been busily engaged in setting spies over every man of eminence, taking note of all his sayings and doings, and printing, or rather misprinting, any incautious utterances which may have escaped him in private or in public. Whether this is fair play, let every man judge for himself. But a Frenchman may well be allowed to deplore the fate of this unhappy country, which, after going perhaps too far on the road to freedom, has fallen so far back in the opposite direction as to stand in the rear of all the civilised nations of the world. Neither in Italy since its liberation by the arms of France, nor in Austria since ill-fortune has taught her wisdom, would such unjustifiable persecution be for a moment allowed. What would become of the most illustrious thinkers of Europe — what would become of Darwin, Huxley, Lyell, Virchow, Vogt, and all the Legion of Honour of modern science — if so absurdly intolerant a spirit were to prevail? And who can suppose that the interests of religion itself would be promoted by such narrow measures? If all the teachers of France were appointed by the rulers of the clergy, it may well be doubted whether a single young man would retain orthodox principles. "Give me Jesuit professors," said M. Thiers one day, "and I promise you a full crop of unbelievers;" and, in fact, Voltaire was undoubtedly the most celebrated pupil of the Jesuits.

It had been expected that the charges against our Medical institutions would have been coupled with an attack upon the system at present adopted with respect to *lunatics*. Any French Doctor, by signing a certificate, can consign a patient to the hands of a mental Physician; and although inspectors are appointed to visit all sanitary establishments of this class, it has been rumoured that of late certain persons have been unduly incarcerated under the imputation of lunacy. But the extreme length of the discussion on the subject of Medical teaching seems to have precluded the possibility of debate on this latter subject. Whatever the truth may be—and we believe the facts brought forward to have been grossly exaggerated—it may safely be said that magistrates, politicians, and men of the world are thoroughly unfit to judge of the mental state of an astute monomaniac, who may talk rationally during the whole course of a long cross-examination, and commit murder on the very first day he is set free.

GENERAL CORRESPONDENCE.

POISONING BY CARBOLIC ACID.

Letter from Dr. F. Crace Calvert.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read with sincere regret in your valuable journal the account of the death of a person from having accidentally taken ʒj. of impure carbolic acid. I deem it my duty to inform your numerous readers that the best antidote to be administered after the stomach-pump has been used is large doses of either olive oil or oil of sweet almonds mixed with a little castor oil, for not only do they interfere with the corrosive action of carbolic acid, but they dissolve freely the acid, dilute it, and prevent its action on the mucous membranes.

I am, &c. F. Crace Calvert.

Royal Institution, Manchester, May 2.

P.S.—If at any time strong carbolic acid should come in contact with the skin, its caustic action can be entirely prevented by removing it with a little oil.

NAVAL MEDICAL DEGRADATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Commodore George G. Randolph is to remain where he is, and Dr. Stirling, who has been publicly and professionally degraded, gets no satisfaction such as his brethren think is his due. The *Army and Navy Gazette* of the 23rd inst. says:—"We have heard that, after due deliberation, the Lords of the Admiralty have decided upon allowing Commodore Randolph to remain as senior naval officer at the Cape of Good Hope The Lords of the Admiralty have been prompt in making Dr. Stirling reparation by nominally reappointing him to his old position from the date of his landing in England until April 30, to enable him to complete his twenty-five years' sea service."

This is the literal explanation:—That Dr. Stirling, having completed twenty-five years' full-pay service, and, being 55 years of age, can retire on £1 per day. This is his reward after being degraded at the colony of the Cape of Good Hope by Commodore Randolph, and Professional degradation hovers over the Medical officers of the navy so long as Dr. Stirling's treatment by authority can be again repeated whenever tyrannical abuse of position prompts it.

On Dr. Stirling there is no reflection whatever. How true it is that the navy makes but few friends! The late Sir Wm. Burnett, ex Medical Director-General, has officially recorded it—"There is a feeling against the navy."

I am, &c. M.D.

STAMPING OUT SMALL-POX.

Letter from Dr. Imray.

[To the Editor of the Medical Times and Gazette.]

Sir,—A communication from Sir J. Y. Simpson appears in your numbers of January 4 and 11, which doubtless must have attracted the notice not only of the Profession, but of the public generally, for its importance, I imagine, can scarcely be over-estimated.

Sir J. Y. Simpson submits for the consideration of the Profession a plan for "stamping out"—as it is called—that dreadful pestilence, small-pox, which plan, if faithfully carried into operation, would, he believes, speedily extinguish the disease throughout the United Kingdom. This proposal is surely deserving of the most earnest and immediate attention, since it would be no less than an attempt utterly to remove from the land a loathsome and destructive pestilence, and thereby yearly preserve the lives of 6000 persons that, as shown by Sir J. Simpson, are its annual victims. Can this be done? is the question that naturally arises. I believe, with Sir J. Simpson, that it is both possible and practicable. A simple expression of opinion, however, would be of small value indeed were it left unsupported by sound reasoning, or, what is perhaps of equal value in determining a question of this nature, facts. I have no doubt, therefore, that it will be

interesting to Sir J. Simpson, possibly to others of your readers, to be made acquainted with the results of the actual working of the "stamping-out" process in this colony, as brought to bear upon small-pox, over a period of about eighteen years. The experiment, it is true, has been conducted on a small scale as compared with the vast field on which it is proposed to apply it; nevertheless it is not without its value, inasmuch as it has been entirely successful. Not a single death has taken place from small-pox in this colony during the period above alluded to; and, although the disease has several times been introduced, each time it has been arrested and destroyed by prompt and rigorous measures of isolation, combined with vaccination. Far different was it in former times in this colony. The visitations of small-pox were terrible in their consequences. The last great outbreak of the disease was in 1836. Its ravages then extended far and wide. No record of deaths was kept, but the mortality must have been great.

Previous to the year 1848 no quarantine laws existed in the colony, nor had any steps been taken by the Government to extend vaccination among the people generally, or to establish sanitary regulations. In the end of that year an act was passed by the Legislature authorising the Governor to appoint a Board of Health, whose duty it should be to frame rules and regulations to prevent the introduction of small-pox, or other contagious disease, into the island. Early in the following year the Legislature passed another act authorising the Board of Health to establish rules and regulations to prevent the extension of contagious disease if introduced into the colony, and also to provide for the vaccination of the population generally at the public expense—a very important measure so far as the lives and health of the people were concerned. The Legislature wisely armed the Board of Health with ample powers to carry out their regulations, and authority was given to frame rules and regulations to meet any unforeseen emergency that might arise, such rules and regulations, after receiving the approval of the Governor and Council, to have the force of law—a most useful provision in the act of the Legislature. Stringent rules and regulations were accordingly enacted without delay, the good effect of which the country soon had occasion to experience.

1. About the time of, or shortly after, the passing of the last act, it was reported to the Board of Health that small-pox existed in the S.E. district of the island. Medical Practitioners were sent into the district to inquire into the facts and report to the Board. It appeared that the disease had been introduced from the neighbouring French colony of Martinique, where it prevailed, by certain boats (as was supposed) carrying on a smuggling traffic between the two colonies. Cases were found to exist at four different localities, but not far distant from each other. One of these localities was a small village situated at the extremity of a lofty ridge terminating abruptly by a precipice towards the sea, and steep on each side. The village was immediately isolated, which, from the peculiarity of its position, was not difficult to effect. Guards were placed at the various accessible points so as to prevent ingress and egress. At the other localities white flags were hoisted (a rule of the Board) to warn all persons to keep aloof, punishment by law being the speedy result of disobedience; and constables were placed at each house or cluster of houses, so as effectually to cut off all communication. In the village alluded to twenty-five cases occurred, at another locality eleven cases, at the two remaining one case each; at another locality there was also one case. The disease did not radiate from these centres, no instance occurred beyond the lines of isolation, and thus the pestilence was fairly stamped out. It must be stated that during the period of isolation vaccination was actively spread among the people in all parts of the district.

2. About the same time, a man who had lately come from Guadeloupe, and resided in the principal town of the island, Roseau, was attacked with small-pox. The Board of Health instantly stationed guards to prevent all intercourse, and ordered the white flag to be hoisted on the house. The man recovered. The disease did not extend.

3. In April, 1849, it was reported to the Board that a boy, affected with small-pox, had been landed from a vessel at one of the bays on the N.E. coast of the island, but a despatch came soon after to say that he had been re-embarked. No case appeared in the district afterwards.

4. In the same month a woman was seized with small-pox at a gentleman's house near town. She was immediately removed to a suitable locality, and isolation strictly enforced. There was no extension of the disease.

5. In April, 1861, a gentleman who had been on a visit to Trinidad, where small-pox was raging at the time, landed from the steam-packet apparently in good health. In a few days after he sickened and took to bed. The illness proved to be small-pox of a mild type, as he had been vaccinated. A guard was immediately placed over the house, which was about a mile from town, and all communication at once put a stop to. As this gentleman recovered, his aunt, who had suffered from small-pox many years before, had a second attack in a modified form. No extension of the disease followed.

6. In July, 1861, it was reported to the Board of Health that a man, who had shortly before come from one of the Leeward Islands, was lying ill with small-pox in a house in town. A Medical Inspector confirmed the truth of the report. The man was immediately removed to a detached house at some distance from the town, and the usual precautions adopted. This was a severe case; but the man recovered, and no extension of the disease followed from this point.

7. In the house where this stranger had lodged till removed by order of the Board, a woman and three children lived. It was rumoured that one of the children was ill. The Medical report stated the case to be a very decided one of small-pox, the child not having been vaccinated. The woman with her children were removed without delay to a convenient position at a considerable distance from town, where isolation could be easily put in force. The child recovered, and the two others escaped. The woman herself had already gone through an attack of small-pox. No other case occurred, though in this instance there was much danger, the disease having appeared in a crowded part of the town, and the first case (6) when discovered being in an advanced stage, one of the inmates of the house having indeed imbibed the poison, as the event proved.

8. In September, 1861, a man landed from Martinique on the windward side of the island. Shortly after he was laid up with small-pox. The usual measures of isolation were put in practice. He recovered. No extension of the disease.

The above is the last instance of small-pox being introduced into the country; but not long since a vessel came to the port of Roseau from an infected island (St. Thomas). She was not allowed *pratique* fortunately, for it was soon found out that small pox existed among the crew, after the vessel went to the quarantine station.

It will thus be seen that on six different occasions (the third instance can scarcely be included), during a period of eighteen years, has small-pox found its way into this colony, and on one occasion appeared at five separate places. Notwithstanding, by instant and decided measures of segregation and seclusion, the malady was at each time hemmed in and extinguished.

It need scarcely be observed that where compulsory isolation was resorted to, Medical attendance where required and available, medicines, nurses, food, and other necessaries were provided at the public expense, and on recovery all proper precautions as to disinfection, etc., were carefully attended to. At the same time vaccination has not been neglected by the authorities, but has been extended periodically among the people as widely as possible. Still a large proportion has inevitably remained unprotected; and had small-pox, when once it had gained a footing, been allowed to take its course unchecked, who can doubt the result?

Vaccination must always be the great safeguard against small-pox, but, as so clearly and forcibly stated by Sir J. Simpson, it is all but impossible to extend its protection over a whole nation, from very many causes. A large minority must therefore always remain on which the small-pox poison will prey if its course is left free. No alternative, then, is left, if it be desired utterly to eradicate the malady, but to fall back upon isolation, or the "stamping-out" process.

The facts as above stated show that rigid isolation can hardly be carried out without an occasional infringement of the "liberty of the subject." But, to effect so great a good and remove an evil of enormous magnitude, some little exceptional inconvenience may well be submitted to by the public of any country. The combined action of vaccination and the stamping-out process, as suggested by Sir J. Simpson, would, I am convinced, soon divest small-pox of all its terrors; and the frightful mortality caused by this plague throughout the nation would be spoken of as an evil of times gone by.

With your permission, I should wish to take another opportunity of placing on record in your pages the effect of quarantine, and in one instance of isolation, as a defence against cholera. I am, &c. JOHN IMRAY, M.D.

Dominica, West Indies, February 26.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 12, 1868.

SAMUEL SOLLY, Esq., F.R.S., President, in the Chair.

DR. HENRY COOPER ROSE detailed

A CASE OF CYSTIC DISEASE OF KIDNEY SIMULATING OVARIAN DISEASE.

C. R., a rather delicately constituted young lady, discovered a tumour about the size of an orange in the situation of the left ovary when at the age of thirteen. About this period she menstruated for the first time, and continued to do so at intervals of three or four months for some years. She suffered also from hæmaturia occasionally, but in the early stages never mentioned the fact. She came under the author's care in January, 1856. The tumour at that time appeared solid, no fluctuation being perceptible. The tumour gradually increased until July 22, 1865, when it extended from the pubes and Poupart's ligament on the left side to the ribs, and reached beyond the median line of the abdomen considerably. Fluctuation was now very perceptible; and, equidistant between the crest of ilium, umbilicus, and ribs, a prominent point presented itself, over which the skin was thin, livid, and very tense. Through this point Dr. Rose introduced a trocar, and evacuated seven pints of sanguineous clotty fluid. A large mass was still felt in the abdomen, apparently partly solid and partly multilocular. She remained very faint and low for some time, but in the course of about two years she had so far recovered as to be able to walk two or three miles, or play croquet for three or four hours at a time. The fistulous opening made by the trocar remained patent during the remainder of her life, giving vent to semipurulent fetid fluid, varying in quantity from one ounce to several ounces daily. No hæmaturia or pain took place after the tapping, and the tumour gradually became reduced to the size of a man's fist. About August, 1867, anasarca of the legs took place, and albumen was abundant in the urine. Nausea, sickness, and headache supervened, and she gradually sank on October 29, 1867, retaining consciousness to the last hour or so. Many Professional opinions were obtained on the case, and all were led to diagnose ovarian disease with complication. The post-mortem examination revealed a large cystic kidney on the left side, with total destruction of the secreting portion; and the right kidney was undergoing yellow degeneration, and was enlarged to twice its normal size. The chief points of interest in the case arise from the fact of its exhibiting a series of symptoms perfectly compatible with the belief in its ovarian origin; its existence for so long a period (fifteen years); the absence of elements of urine in the fluid evacuated by the tumour; and the ultimate relief afforded by the puncture through the abdominal walls of so large a cyst, together with the comparative freedom from suffering and inconvenience, notwithstanding the large amount of disease found after death.

Dr. SYMES THOMPSON narrated a somewhat similar case which had been under the care of Dr. Todd. A woman, aged 34, with a distended and fluctuating abdomen, came into Hospital. There was a central tumour which had first been on the left side. Dr. A. Farre thought it was not ovarian from the condition of the uterus; Dr. Todd that it was a multilocular cystic enlargement of the ovary. On dissection, the uterus and ovaries were found to be healthy, whilst the swelling was found to proceed from the left kidney, which it had superseded. It weighed, without fluid, 40 lbs.

In reply to a question from Dr. HARE, it was stated that the suprarenal capsules were not much enlarged. Dr. Hare then proceeded to state that eighteen years ago he saw a cystic swelling in a male subject, and thought it renal. He again saw him with Dr. Bright, when it was much enlarged and divided into two parts by a resonant band. Still it moved as one mass. The resonant band was the colon, and he thought its presence sufficed to diagnose such tumours from enlargements of the spleen. He also exhibited a number of excellent drawings illustrating this condition. Sometimes the enlarged suprarenal capsule gave rise to some difficulty. He thought in the case narrated that the persistent hæmaturia would have excited attention.

Dr. S. THOMPSON remarked that the colon in the case narrated by him was in front of the tumour, but completely flattened.

Dr. HARE said that, even so, air and fæces might be noticed passing downwards.

Mr. SPENCER WELLS said there were occasional exceptions to the rule that large tumours of the abdomen with intestine crossing them in front, were renal and not ovarian. Dr. Keith, of Edinburgh (who was then present), had seen two cases, and he (Mr. Wells) had seen at least six, where ovarian tumours were crossed in front by adhering intestine. It might not be detected at one examination, because the intestine might be empty; but patients were generally conscious of the passage of air and fluid, and a peculiar cord-like roll was produced when the intestine contracted under the pressure of the hand. If doubt were still felt, a long tube might be passed up the rectum, and air blown in from bellows. In this way the intestine might be inflated, and tympanitic resonance became manifest. The diagnosis in the case brought forward by Dr. Rose was unusually difficult, because it was supposed that an ovarian cyst was spontaneously emptying itself through the bladder; and when it became necessary to tap the cyst, the fluid evacuated contained none of the constituents of the urine, nor anything confirming the suspicion that the cyst might be renal. So with some of the cases which he (Mr. Wells) had published in the *Dublin Journal*. The urine was quite normal, because the diseased kidney had ceased to secrete, and the other kidney was healthy. In a large tumour, weighing between thirty and forty pounds, which he had brought before the Pathological Society with several renal calculi from the pelvis of the kidney, the tumour had filled the whole abdomen and descended into the pelvis. He had seen other tumours of one kidney which had extended across to the opposite side of the abdomen, and also downwards into the pelvis. In one case which he had seen recently with Mr. Keyser, the tumour was so distinctly not pelvic in its early stage that a very distinguished Physician said it could not be ovarian. But a year later the same Physician wondered that he could ever have doubted that it was ovarian, because it seemed so closely connected with the uterus. In this case the cyst was tapped, and a very competent observer, finding colloid bodies and epithelium in the fluid, expressed a strong opinion that it was ovarian. On making an exploratory incision he (Mr. Wells) found a large renal cyst, emptied it, sewed the opening in the cyst wall and abdominal wall together, introduced a drainage tube, and the result was a perfect cure. So in one of his published cases tapping and drainage led to the complete recovery of a patient with a renal cyst. Simple tapping seemed to be of little use, while tapping and drainage offered very encouraging promise of success in cases otherwise incurable.

Dr. W. H. BROADBENT read a paper on

AN ATTEMPT TO APPLY CHEMICAL PRINCIPLES IN EXPLANATION OF THE ACTION OF REMEDIES—CHEMICO-THERAPEUTICAL GROUPS: A DEDUCED TEST-HYPOTHESIS, ILLUSTRATED BY ARSENIC AND IRON AND THEIR ALLIES.

The author starts with the postulates:—1. That there must be some relation between the substance administered and the human organism, on which the effects produced depend. 2. That so far as the substance is concerned, the basis of this relation can only be its chemical properties, using the term in its widest sense. From these postulates certain corollaries follow:—1. That the physiological and therapeutical actions of the same substance must be similar in kind. 2. That the action of foods, medicaments, and poisons in the system must be capable of explanation on the same principles. 3. That substances closely allied chemically must have an analogous action on the system, or the diversity of their operation should be capable of explanation on chemical principles. In other words, chemical groups ought to form therapeutical groups. These considerations furnish an opening for the application of chemical principles in the explanation of the action of medicines, and the last constitutes an hypothesis which can be brought to the test of experiment. Looking at the substances employed in Medicine from the point of view suggested by these corollaries, a contrast is found to exist between organic and inorganic medicaments similar to that between organic and inorganic foods. The organic constituents of food, after entering into the composition of the blood and tissues, are oxidised with evolution of force; the inorganic matters do not yield force by undergoing oxidation, but in some way, not thoroughly understood, influence the nutritive processes. Organic medicines seem to act chiefly through the nervous

system, and to affect the evolution of force, undergoing oxidation the while; inorganic medicines seem to modify the nutritive or organic operations, passing out of the system for the most part with little change. The two classes of operation spoken of, the nutritive or constructive, and the force-evolving or destructive, are mutually interdependent, but distinct and antagonistic. It is not easy to define their respective range of influence; but nutrition, being antecedent in time to oxidation, and by its perfection or imperfection modifying this process, must be accounted the more important, and so-called errors of oxidation may be due to antecedent errors of nutrition. The present attempt to apply chemical principles in explanation of the action of remedies will be limited to inorganic medicines and their influence on the general nutritive processes. In doing this it will be necessary to consider:—1. The general chemical properties of the body: (*a*) the energy and direction of the affinities of the group to which it belongs; and (*b*) the energy of these affinities in the different members of the group. In few instances, however, is therapeutic action *directly* traceable to chemical properties, and therapeutic effects are by no means always in proportion to chemical energy. Dr. Odling's explanation of the latter fact, though a most valuable suggestion, does not go very far. If it accounts for the difference in the action of a chemically mobile body, as compared with a chemically energetic member of the same group, it in no way explains the very diverse effects of different mobile substances. We must look, then, —2. To the special relations of the substances administered with the organic proximate principles composing the blood and tissues. The mineral matter contained in the solids and fluids must be borne in mind. There are four great classes of nitrogenised proximate principles:—1, albumen, the general plasma; 2, the syntonin of muscle; 3, the protagon of nerve; 4, the gelatine of the connective structures. The inquiry as to the action of the various inorganic substances on each of these is of vast magnitude, and can only be just touched upon. It may be illustrated by the coagulation of albumen. The salts of the alkalies are antagonistic to this change; the salts of the metals at the opposite end of the series induce it. Mixed with the albumen of the blood, they must differently affect its readiness to enter into the nutritive operations. Coagulation implies affinity of the metal for, and its combination with, the albumen, and different degrees of affinity of the various metals for one or other of the proximate principles explain what is called the specific influence of a given substance on a particular tissue or function, and its "determination" to a particular part or organ. Some of the compounds formed by the union of metallic salts and organic matters are very stable, and as they do not undergo putrefaction, the salt is said to have an antiseptic influence. Antiseptic action, in some of the various significations in which the term has been used, has been made the basis of an erroneous *rationale* of the action of certain remedies, which there is not time to refute. But coagulation is only a rude and imperfect exemplification of the reactions between mineral matters and the organic constituents of the body. A consideration going much further is—3. The constant presence in the blood and tissues of certain salts, those of iron, soda, potash, lime, etc. We usually say a given salt serves certain purposes in the economy, and that therefore it is present. The real order of causation is the converse of this. It is present because of affinities between it and the organic constituents of the blood and tissues, and it is in virtue of these affinities that it is of service in the organic processes. The existence in the body of a particular mineral substance as a normal constituent is thus an indication (*a*) of affinities between it and the organic proximate principles; and (*b*) that the influence of these affinities is favourable to the nutritive processes. 4. More knowledge of the same sort is obtained by an application of similar principles in the case of the excretions. In these are found the products of the oxidation which has yielded force, and the mineral substances which have influenced the nutritive processes; and from an examination of them several obvious conclusions may be drawn: (*a*) as to the amount of organic matter oxidised; (*b*) as to the effects of different substances on metamorphosis; (*c*) as to the affinity between mineral and organic matters. The channel of separation of the various excretory substances seems to be determined very much by physical conditions; gases passing off by the lungs, volatile fluids by the skin, soluble non-volatile substances by the kidneys. As great importance is attached to the eliminant action of increased excretion, it is necessary to bear in mind the various conditions on which this increase may depend, and especially that it may be due to an antecedent action on the blood and tissues generally by the substance which has brought about the result. 5. Still another method by which the influence of substances used as remedies upon living structures may be manifested is their action when applied topically. In the remaining portion of the paper the principles laid down are briefly and imperfectly applied to the chemical groups represented in therapeutics by arsenic and iron, the principal object in treating of them being to illustrate the third corollary, or the hypothesis of chemico-therapeutical groups. The line of investigation taken has been as follows:—Given a distinct and well-ascertained physiological or therapeutical effect, can results in any measure analogous be obtained from the chemical allies of the substance producing it? The arsenic group comprises phosphorus, arsenic, antimony, and bismuth, the chemical analogies of which are among the most striking known. Excluding bismuth, which, from its feeble affinities and tendency to form insoluble compounds, may be considered inert, these bodies present analogies in their physiological and therapeutic action as striking as those of their chemical properties. The only point in which the similarity of therapeutic action remains to be established is in skin diseases, in which arsenic is a remedy of known power. Evidence (confessedly insufficient) is brought forward on this question. The satisfactory progress of three cases of severe eczema under the use of phosphorus seems to promise that this substance will be a valuable addition to our means of treatment in this class of cases. In the iron group the metals experimented with have been chiefly manganese and nickel. Cases of extreme chlorosis have recovered while taking these, as substitutes for iron, in the Hospital iron and quassia mixture. It is not supposed that they will in any way supplant iron, but it is hoped that practical therapeutics will reap an advantage in the addition of one or other of these metals to iron in certain cases, as has long been advocated by Pétrequin and other French writers.

After some discussion, it was determined, on the motion of Dr. Salter, to postpone the debate on this paper.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MAY 5, 1868.

J. SIMON, Esq., F.R.S., President, in the Chair.

REPORTS were read by Dr. Andrews on Mr. Marsh's specimen of tumour removed from the rectus femoris, and by Mr. Hulke on Mr. Carr Jackson's of cerebral tumour.

Mr. PICK then showed a specimen of

GRANULAR KIDNEY PRODUCED BY MALFORMATION OF THE RENAL ARTERY.

The man died of pleuro-pneumonia. The diseased kidney weighed six drachms, the other eight ounces. The artery ended in a *cul-de-sac*, and two small twigs only went on to the kidney.

Dr. QUAIN questioned the applicability of the term granular, and thought the specimen was rather one of atrophied kidney.

Mr. PICK had used the term advisedly. There was in all old people a tendency to fibroid degeneration, and this was a specimen arising from malnutrition in such a subject.

Mr. PICK then exhibited a specimen of

DISEASE OF THE CRANIUM, PROBABLY SYPHILITIC,

removed from a man who had complained of pain in the head, and died within twenty-four hours. He had sometimes been violent previously. The skull was thickened, and over the brain was a layer of solid lymph $\frac{1}{4}$ inch thick, of old standing. There had been no symptoms at the time of its formation.

Dr. GREENHOW showed a specimen of

ULCERATIVE ENDOCARDITIS.

The man died of pyæmia after an illness of five days. The tricuspid was covered with soft lymph. The mitral and aortic valves were reddened and thickened, and the latter excoriated.

Mr. GREENHOW also exhibited a living specimen presenting great deformity of the chest, with thinness of its walls, so that the motions of the heart could be seen. The sternum was keeled, and on either side of it the heart could be seen to beat.

Dr. TUCKWELL (of Oxford) exhibited four specimens of

DISEASED SUPRARENAL CAPSULES,

collected within two years. Nausea was observed, but in one

only was the colouring of the skin strongly marked. The length of the disease seemed to vary with the bronzing. The fourth specimen was softened, not hardened. There were in this instance only a few brownish pigmental patches. The pulse was very feeble. The patient sank from interstitial nephritis and fatty heart.

Dr. WILTSHIRE showed a

MULTILOCULAR OVARIAN TUMOUR WITH CYSTS CONTAINING BLOOD.

The woman was seen on Sunday, when she was very ill; the mass was removed on Monday. When tapped blood came away. The incision had to be enlarged for the removal of the tumour, a portion of which gave way, and a quantity of bloody fluid escaped into the abdomen. The pedicle was small.

Dr. GUSTAVUS MURRAY remarked that the case was of interest, both as regarded the contents and the condition of the patient. Ovarian tumours containing blood, he thought, generally gave way in removal.

Dr. EDWARDS CRISP showed a liver containing the so-called ova of strongyli, and certain wax models of entozoa.

Mr. BIRKETT exhibited a

FOLLICULAR OR EPITHELIOMATOUS TUMOUR,

removed from an old man's head. It was of long standing, and, although the disease was very malignant-looking, was really susceptible of great amelioration by removal of the tumour and surrounding infiltrated glands. The growth was limited by a membrane. Another peculiar one from the back of a patient was also spoken of. It looked much like cancer, but two tumours on the scalp exactly resembled it, and the growth was pronounced follicular. It had existed fourteen years.

Mr. BRUCE asked Mr. Birkett whether he had found nests of epithelial cells in the tumour. As far as his investigations went, he believed that these nests were more common in the follicular form of epithelioma than in the variety in which the new cells were developed in the substance of the corium, being derived from the connective-tissue corpuscles. The nests in the two varieties appear to have a different mode of origin; in the follicular form they are produced by the development of cells in a confined space, pressure being directed from the periphery towards the centre, whilst in the other form they arise from the production of brood-spaces and an ectogenous cell-growth, the pressure being directed from the centre to the periphery.

Dr. CHOLMELEY showed a specimen of

ANEURISM OF THE AORTA,

from a man aged 31. He had been intemperate, and some years ago had fallen against a bar of wood, but was able to resume his employment. He afterwards fell from a scaffold. There was no abnormal sound, but intense pain. Latterly there was some difficulty in swallowing. He died suddenly, when the right pleura was found filled with clotted blood, the arch of the aorta dilated, the sac long and fusiform, extending to the sixth dorsal vertebra. The walls of the vessel were atheromatous.

Dr. CHOLMELEY also exhibited an

ANEURISM OF THE ABDOMINAL AORTA,

situated just below the diaphragm, which had given rise to much pain. It was closely attached to the diaphragm.

Dr. BRISTOWE showed a specimen of

COLLOID CANCER OF THE STOMACH, ETC.,

occurring in a man aged 45. He had been ill four months with cough and obstructed circulation. The glands about the pancreas and pylorus, the bronchial glands, the surface of the lung, and the interior of its tubes were all affected with the disease. The substance was translucent and gelatinous throughout.—Referred to the Committee.

Dr. M. MACKENZIE brought forward a specimen of

ULCERATION OF THE LEFT SIDE OF THE LARYNX,

producing obstruction in the œsophagus during life. No treatment did good. The walls of the œsophagus on the right side were apparently united.

Dr. MURCHISON exhibited (1) a specimen of

CANCER OF THE ŒSOPHAGUS AND LUNG,

producing consolidation of the apex as if from tubercle. The patient died in the usual way, when the disease was found to have penetrated the trachea. (2) He also showed a specimen illustrating fistula between the ileum and the cæcum. There was diarrhœa and fæcal vomiting during life. There were besides a number of ulcers in the process of healing, as if from typhoid. (3) A man had suffered from symptoms of renal calculus, but had been well up to a recent date, when acute pain came on. There was no dropsy and no calculus in the bladder. He died with symptoms of uræmic and pyæmic poisoning. The bladder was gangrenous, but there was no renal calculus and no enlarged prostate. There was a large communication between the right ureter and the bladder. There had probably been a calculus which had escaped from the bladder after making its way into it by sloughing.

Dr. BASTIAN exhibited

COHNHEIM'S EXPERIMENTS ON THE PRODUCTION OF PUS IN THE MESENTERY OF A FROG.

The amœboid changes in the blood-corpuscles were well marked. He referred to Dr. Addison's researches, and thought they did not go so far as to justify his title to the discovery.

The PRESIDENT remarked that Cohnheim made reference to them.

Mr. ARNOTT showed a specimen of

FRACTURED FEMUR WITH RUPTURE OF VESSELS ENDING IN GANGRENE,

occurring some time (ten days) after the receipt of the injury. The leg was amputated at the knee-joint, but the man sank.

Mr. T. SMITH showed some

DATE-STONES PASSED THROUGH AN OPENING IN AN INGUINA HERNIA.

The child had extreme epispadias and double congenital hernia. A fortnight after swallowing the two stones there was pain on the right side, and a poultice was applied. Suppuration came on, and the stones were passed a month after being swallowed.

Dr. D. POWELL showed a specimen of

CANCER OF THE LUNG AND OTHER ORGANS

removed from a patient of Dr. Pollock's. The bronchial glands were affected, a nodule projected into the pericardium, the bronchi and lungs were also infected, as were the liver and head of the pancreas. Dr. Powell also showed the lung and portions of the intestine from a patient who had laboured under chronic phthisis. The lung was contracted, and the pleura thickened with laminæ passing inwards. The other lung was only pneumonic. The intestines were much ulcerated, but there had been no diarrhœa.

Referred to Drs. Sanderson and Bastian.

Mr. BRYANT exhibited a large tumour removed from the breast of a female aged 34. Thinking it an abscess, she had applied poultices, which had probably hastened the growth of the mass.—Referred to Committee.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, MAY 16.

Dr. DRUITT, President, in the Chair.

JAMES'S SANITARY WATER-CLOSET — B. NICOLL'S SLABS OF CONCRETE, ETC., FOR BUILDING PURPOSES — NEW CEMENT FOR FACING WALLS — WORKSHOPS' REGULATION ACT AT HACKNEY — MR. CHADWICK ON THE SPECIFICATIONS FOR CONTRACTS FOR WHOLESOME BUILDINGS.

THE proceedings this evening, of which our limits oblige us to give a very short *résumé*, began by the exhibition, by Mr. James, of 35, Stamford-street, of a "Sanitary Water-closet," intended to obviate the dangers and nuisances arising from the closet in ordinary use. It is unnecessary to insist upon the fact that the descending water-closet pipe and the sewers below are reservoirs of the most noxious gases, and that each time a closet is used some of these may ascend and pass into the house, even if they do not escape at other times through fissures and defects, or through untrapped sinks. The danger is, of course, greater when the closet is established in the bedroom or dressing-room, as it often is. The closet exhibited provides effectually against the escape of foul air. In the first place, the *riser*, or flap or lid covering the pan, is closed before the plug is raised and the contents of the closet let off; and the under side of the lid is padded with india-rubber, so that no effluvia can escape. This, by itself, is a very material improvement, and if it were applied to ordinary closets would deprive them of half their offensiveness. The handle of the closet is so placed as to be accessible when the lid

is shut down. Besides this, there is around the top of the pan a tray containing deodorising material (as Calvert's powder). When the lid is closed, a valve is opened, which permits a current of air, brought by pipes from the outside, to pass freely over the deodorising material and over the pan, so as to sweep away any offensive odour and prevent it from being diffused into the apartment. The invention can easily be applied to the common closet, and was understood not to be very costly.

Mr. NICOLL exhibited, at Mr. Chadwick's desire, his patent fire-proof concrete slabs for building purposes, being applicable for floors, walls, partitions, ceilings, etc., in different thicknesses.

Mr. NICOLL also exhibited specimens of a cement for giving a hard washable face to walls and ceilings, for Hospitals, cottages, etc. The cement is composed of carbonate and chloride of magnesium, which Dr. Letheby feared would be rather expensive.

Dr. TRIPE gave an account of the regulations issued by the Hackney Board of Works, to "be observed by all employers of labour not at present subject to the regulations of the Factory Act; that is to say, that in any workshop where less than fifty persons are employed—

"1. No child under the age of eight years shall be employed in any handicraft.

"2. No child shall be employed on any one day, in any handicraft, for a period of more than six and a half hours, and such employment shall take place between the hours of six in the morning and eight at night.

"3. No young person or woman shall be employed in any handicraft during any period of twenty-four hours for more than twelve hours, with intervening periods of taking meals and rest, amounting in the whole to not less than one hour and a half, and such employment shall take place only between the hours of five in the morning and nine at night.

"4. No child, young person, or woman shall be employed in any handicraft on Sunday, or after two o'clock on Saturday afternoon, except in cases where not more than five persons are employed in the same establishment, and where such employment consists in making articles to be sold by retail on the premises, or in repairing articles of a like nature to those sold by retail on the premises.

"5. No child under the age of eleven years shall be employed in grinding in the metal trades or in fustian cutting. The occupier of a workshop is liable to a penalty of £3, and the parent to a penalty of £1, for a breach of any of the above regulations numbered from 1 to 5 respectively.

"6. That a fan or other mechanical means must be adopted in any factory where grinding, glazing, polishing, or other process is carried on by which dust is generated so as to be injurious to health, under a penalty of £10.

"7. That the workshop must be kept in a cleanly state, and properly ventilated to the satisfaction of the Medical Officer of Health; also that there must be at least 300 cubic feet of air for every person above thirteen years of age, and 200 for every child under thirteen, working at a handicraft in a workshop.

"8. That every child employed in a workshop shall attend school for at least ten hours in every week, between the hours of eight in the morning and six in the evening; but not more than five hours are to be counted on any one day. A parent neglecting to send the child to school is subject to a penalty of £1.

"9. That every employer shall, on Monday in every week, obtain from the principal teacher of some school a certificate that every child in his employ has attended at school for the above-named number of hours per week, and shall keep the certificate for one month, under a penalty of £3. That every employer shall, under a penalty of ten shillings, pay to the said teacher, on demand, a sum not exceeding twopence per week, provided such sum shall not exceed one-twelfth of the weekly wages, and deduct the same from the wages payable for the services of the child.

"10.—Any occupier of a workshop who shall refuse to admit the Medical Officer of Health, or Inspector of Nuisances, to ascertain if the above regulations are carried out, is liable to a penalty of £20.

It will be seen from the above what extensive powers of protection are given by the law against the tyranny of persons who employ young women and children. Employers are to be found who say that if work-girls and apprentices worked instead of idling in the mornings, their hours of labour need not be so long.

Mr. CHADWICK read a paper on the specifications of sanitary ends to be required from architects in the construction of dwellings. There was little new in the paper besides the mention of new materials and modes of construction, such as those of Mr. Nicoll, already mentioned, with the comment that all attempts at improved and economical construction of dwelling-houses for working men were rendered difficult by the strikes and trades-unions' operations, whose very purpose is to make building dear, and keep it so. Mr. Chadwick specifies in a very convenient and summary manner the points to which attention should be directed so far as health is concerned. He demands that dwelling-houses shall be miasm- and malaria-proof, damp-proof, fire-proof, vermin-proof, and fever-proof. To keep out miasm and malaria, he mentioned the laying of boards on pitch over the ground. There is nothing new in that. To keep out damp, he recommended the non-absorbent slab in preference to absorbent brick or stone. To keep away vermin and fever, he rejects the lath and plaster, paper, and whitewash employed to face walls and ceilings, and demands a hard face for these surfaces, that shall stand washing with flannel and brush, and, if need be, with a hose and jet. The supply of water to every room was insisted on. Improved methods of chimney construction, whereby the fresh air, warmed, could be pumped in by the smoke which forces its way out, were also commended. Lastly, he insisted on a syphon water-closet and self-cleansing tubular drains.

In the discussion which followed, Dr. Letheby strongly objected to the custom of introducing water into every room, involving as it did the creation of damp and the necessity for a sink, which might be an upward channel of foul air; he also spoke of the necessity of bringing all theoretical improvements to the test of practice. This more particularly with reference to the substitution of an impermeable for a porous material in the construction of walls, for it is well known that very much carbonic acid can be diffused through a brick wall. Mr. Liddle spoke strongly in favour of an improved building act. The President said what was wanted was some authority to hinder houses from being built at all in unfit situations, as on the banks of the Thames below water-mark, on ground richly manured, and on heaps of artificial impurity commonly called "made ground" He spoke of the drainage of the low-lying districts as a delusion, for no sewage escapes at high water, and the street sewers are then but cesspools.

NEW INVENTIONS.

LIEBIG'S EXTRACT OF MEAT BISCUITS.

(Manufactured by Peek, Frean, and Co., London.)

THESE biscuits taste exactly like the Liebig's extract of meat, solidified by some farinaceous matter. In saying this, we mean to imply, besides, that they are free from the rancid and from the burnt flavours which infest so many of the biscuits in which attempts have been made to incorporate meat or its essence. These biscuits have an inviting look as well as a pure taste, and will be much used by travellers and others who want concentrated nourishment in a portable form.

DREHER'S VIENNA BEER.

The Messrs. Andres, of 97, New Bond-street, to whom we are indebted for our knowledge of the excellent wines of M. Schlumberger, of Vöslau, have now brought a new article of luxury within reach of the English public. All the world knows what beer-drinkers the South Germans are; and any one who visited the Paris Exhibition last year must have been struck with the immense popularity of the Austrian and Bavarian beers, which were so greedily imbibed by that cosmopolitan assemblage. "I can't drink beer in England," people say, "yet took it freely at Vienna and Munich. Is the difference in us or in the beer?" Doubtless in both. People on a holiday—*cum grano*—ought to be able to eat and drink anything, whilst at home their over-worked brain and under-aerated blood clog the power of the stomach. Yet there is a marked difference in the beer, and the Messrs. Andres will enable our readers to ascertain whether that of Vienna will be borne as well here as under its native sky, where it is drunk at all hours, by all classes, and in quantities which even a navvy would consider great. The beer is that of Messrs. Dreher, of Klein Schwechat, near Vienna; it is bright, of a

nutty-golden colour (darker than pale ale), and pleasantly brisk. The points in which it seems to differ from its English analogues are that it is very light, very soft, very clean on the tongue, though markedly saccharine; less bitter; and, though fairly strong, yet not heady, nor thirst-creating. Perhaps it would suit nursing mothers, reading men and others, who find English beer too heavy; at any rate, it is a fair subject for experiment. It is not likely to displace English malt liquors, but may be available for persons who do not find the latter agree with them.

NEW BOOKS, WITH SHORT CRITIQUES.

The Royal London Ophthalmic Hospital Reports. Edited by J. C. Wordsworth and J. Hutchinson. Vol. VI. Part II. London: John Churchill and Sons. Pp. 181.

*** The current part of this admirable journal, for it is quite as much a journal as many which really bear the name—contains some admirable papers, chiefly on diseases of the more deeper seated parts of the eye, by H. Power, Lawson, Hutchinson, Hughlings Jackson, Critchett, and Carmichael. A very able synopsis of continental ophthalmology is also one of the most interesting features of the reports. We cannot see them that need for constant alterations in the Moorfields Hospital are ever to take place. Changes which will benefit also patients, pupils, and physicians.

Practical Rules for Safe Guidance in the Performance of the Lateral Operation of Lithotomy. By H. C. Cutcliffe, F.R.C.S., H.M.I.A. Reprint.

*** Mr. Cutcliffe, from the results of numerous experience, for he gives here no fewer than 111 cases, recommends many recommendations of the point where the staff disappears behind the [illegible], that originally directed. Still, his results have been undoubtedly favourable, for only three patients have died from causes directly connected with the operation.

On the Statistics of a recent Epidemic of Typhus in Aberdeen. By R. Beveridge, M.D., Pathologist to the Royal Infirmary. Reprint.

*** A carefully drawn report of an epidemic well defined and distinctive in its characters. Such exhaustive inquiry adds greatly to our knowledge of zymotic diseases.

Sanitary Sittings; or, Results of Sewage Systems examined by a Naval Officer. Pamphlet. London: E. N. Spon.

*** This gentleman seems too deeply enamoured with the dry earth system to have much good to say of drainage; still, he has collected a good deal of valuable material within a narrow compass, the merits of which may be useful to others who are inclined to see something good in both.

The Saint Louis Medical and Surgical Journal, published bi-monthly. Edited, in connection with M. L. Linton, M.D., by G. Bantarton, M.D. St. Louis: Stredley and Co.

*** A favourable indication of the state of Medical science in the far west of America. Dr. Gross's paper on [illegible] is worthy of any journal, and the editors' translation of Cohnheim's papers is admirably done.

Clinical Lectures and Reports. By the Medical and Surgical Staff of the London Hospital. Vol. IV. 1867-68. London: John Churchill and Sons. Pp. [illegible].

*** This admirable volume lies at last on our table, its appearance, and the quality of the articles it contains will amply repay any delay of which subscribers may complain. Of the volumes of Hospital reports we have this year seen leave the press, we are inclined to look upon this as one of the best. The observations of Mr. Hutchinson on cerebral compression are really admirable, as is his short introduction to the use of the ophthalmoscope. Mr. Maunder's cases are also extremely instructive, especially the article on the ligature of a main artery for the arrest of traumatic inflammation. Dr. Morell Mackenzie's cases of nervo muscular affections of the larynx, and Dr. Hughlings Jackson's of nervous disease, are well chosen and calculated to instruct; whilst, if rarity be any merit, Mr. Debenham's case of fracture of the odontoid process, and Mr. Curling's of malignant growth from a child's skull, are in their way unique. Dr. Sutton on pre-systolic bruit is good, as might be anticipated, whilst his report on the morbid anatomy of cholera, as well as Mr. Little's report on the treatment of that disease by saline injections, must ever be held of standard authority on these subjects.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary written and *viva voce* examinations for the Fellowship of the College, on May 25, 26, and 27, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and, when eligible, will be admitted to the final Professional examination for this qualification:—

Adams, J. E., November 14, 1865, of the London Hospital.
Adams, M. A., July 15, 1859, of Guy's Hospital.
Amsden, George, of King's College.
Appleby, C. T., May 25, 1865, of St. Thomas's Hospital.
Bell, H. R., November 19, 1863, of King's College.
Bousley, E. C., November 5, 1858, of St. Thomas's Hospital.
Brockley, Samuel, of the Manchester School.
Cornish, W. R., December 17, 1852, of St. George's Hospital.
Davy, Richard, May 7, 1860, of Guy's Hospital.
De Liefde, John, April 24, 1867, of Guy's Hospital.
Duke, Joshua, of Guy's Hospital.
Durham, Frederic, of Guy's Hospital.
Foster, John, July 19, 1859, of the Leeds School.
Galton, E. H., July 17, 1857, of Guy's Hospital.
Grose, Samuel, April 11, 1859, of St. Thomas's Hospital.
Harding, T. M., July 31, 1848, of the Middlesex Hospital.
Hewetson, William, of University College.
Hawaid, J. W., May 7, 1863, of St. George's Hospital.
Howse, H. G., January 25, 1865, of Guy's Hospital.
Humphreys, F. W., April 28, 1865, of Guy's Hospital.
Ingle, R. N., December [illegible], 1858, of Guy's Hospital.
Jessop, T. R., July 19, 1859, of the Leeds School.
Lee, F. F., April 17, 1866, of St. George's Hospital.
Lucas, R. C., January 21, 1868, of Guy's Hospital.
McConnell, J. F. P., of St. George's Hospital.
Nicholls, James, October 15, 1852, of St. George's Hospital.
Oldham, C. J., of Guy's Hospital.
Palmer, W. J., June 17, 1843, of King's College.
Parker, Erskine, of University College.
Pearce, G. E. L., November 5, 1864, of the Westminster Hospital.
Pollard, Frederic, of St. Thomas's Hospital.
Wilkie, E. J., July [illegible], of King's College.
Pritchard, Urban, of King's College.
Rawdon, W. B., April 7, 1865, of the Middlesex Hospital.
Railton, T. C., of the Manchester School.
Rickards, Edwin, of University College.
Rigg, C. F., of the Manchester School.
Scott, P. T., of Guy's Hospital.
Scudamore, E. C., of St. Thomas's Hospital.
Shewen, Alfred, of University College.
Sikes, F. M. B., November 16, 1865, of St. George's Hospital.
Symes, John, May 8, 1866, of the Leeds School.
Taylor, John, of Guy's Hospital.
Whitcombe, W. W., April 29, 1864, of St. Thomas's Hospital.
Walker, H. E., of Guy's Hospital.
Wall, A. J., of St. Mary's Hospital.
White, G. F., July 10, 1857, of University College.
Wiseman, J. G., May 5, 1857, of Guy's Hospital.
Wood, R. A. H., of Liverpool.

It is gratifying to add that out of the fifty-two candidates only three were referred to their studies.

Licentiates in Midwifery.—The following Members of the College of Surgeons, having undergone the necessary examinations, were admitted Licentiates in Midwifery, at a meeting of the Board on May 27:—

Creagh, P. J., M.D. Queen's Univ. Irel., Cork, April 22, 1868.
Dewsnipes, P. H., L.S.A., Lewisham, April 28, 1868.
Johnson, J. R., M.D. Queen's Univ. Irel., Belfast (not a member of the College).
Glanvire, John, Wedmore, Somerset, May 20, 1868.
Groves, Edward, Portsmouth, April 22, 1868.
Lee, J. L., L.R.C.P. Edin. and L.S.A., Westbourne-terrace, May 22, 1868.
Nairn, F. J., L.R.C.P. Edin. and L.S.A., East Indiaman, April 23, 1868.
Rowling, C. E., Paramatta, New South Wales, April 21, 1868.
Smith, Walter, East Moulsey, April 25, 1867.
Thompson, J. A., Devonshire-street, May 8, 1868.

Only two candidates failed to acquit themselves to the satisfaction of the Board.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 21, 1868:—

Alford, Samuel, the Mount, Taunton.
Edwards, Edward Parry, Montgomeryshire, Meriemeth.
Kirshaw, John, Royton, near Manchester.
Lawson, William Fell, Low Moor, near Bradford.
Rees, William, Aberystwith.
Spence, Walter William, Newcastle-on-Tyne.
Townsend, Meredith, Thurlow House, Clapham-rise.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Brownscombe, T., M.R.C.S.E.—Public Vaccinator for the West District of Kingston-upon-Hull.
Graham, George Wallington, M.D. Lond.—Resident Physician and Medical Superintendent of the Asylum for Idiots, Earlswood.
Hutchinson, Gerald H., M.D. Melb., L.R.C.P. Ed.—Honorary Physician to the Melbourne Benevolent Asylum.
Lowther, G., M.R.C.S.E.—Public Vaccinator for the East District of Kingston-upon-Hull.

BIRTHS.

Black.—On May 18, at 70, Marquess-road, Canonbury, the wife of Robert J. Black, M.D., of a daughter.
Hamilton.—On May 21, at Oakthorpe, Windermere, the wife of Archibald Hamilton, M.D., of a daughter.
Hubert.—On May 20, at Billinghurst, Sussex, the wife of T. K. Hubert, M.D., of a son.
Johnston.—On May 22, at Bromley, Kent, the wife of Joseph Johnston, M.D., Staff Surgeon, 26th Cameronians, of a daughter.
Pottinger.—On May 21, at the Royal Naval Hospital, Plymouth, the wife of Robert Pottinger, Staff-Surgeon, of a son.
Wheeler.—On May 23, at the Royal Naval Hospital, Yarmouth, the wife of Dr. Wheeler, Staff-Surgeon, R.N., of a daughter.
Yeld.—On May 25, at Sunderland, the wife of Dr. Henry J. Yeld, of a son.

MARRIAGES.

EAST—MILLAR.—On May 23, at St. Philip's, Dalston, by the Rev. Alexander Gordon, M.A., John East, Esq., of Albion road, Dalston, to Marion Bolton Millar, of Lower Clapton-place, only daughter of the late James Cochrane Millar, M.D., of Kingsstreet, Finsbury square.

LEWIS—BEEBEE.—On February 27, at Armidale, New South Wales, James Payn, third son of the late Frederick Lewis, Esq., of Shanklin, Isle of Wight, late of H.M.'s Paymaster-General's Office, to Georgina, second daughter of the late Dr. Brereton, of Dublin.

DEATHS.

BENNET, Mrs. FRANCES, relict of James Bennet, of Manchester, and mother of Dr. Henry Bennet, of Grosvenor-street, on May 22, in her 83rd year, at New Town Lodge, Hungerford, Berks.

DAVIS, GEORGE AUGUSTUS, eldest son of the late Dr. Davis, aged 1[illegible], on May 22.

GRIFFITH, LOUISA, wife of William Griffith, Esq., M.D., on May 21, at 78, Belgrave road, S.W.

GUY, TOM, M.D., Fellow of the Royal College of Surgeons, Coroner of the county of York, and Deputy-Coroner for the borough of Doncaster, formerly Surgeon to the West York Light Infantry, on May 1, aged 49, at the Forest, Walthamstow, Essex, while visiting his brother.

LAMERT, GEORGE, eldest son of the late Matthew Lamert, M.D., Deputy-Inspector-General of Hospitals, on Saturday, May 23, at the Forest, Snare-brook, Essex.

LITCHFIELD, MARIA CATHERINE HORTENSIA, the affectionate and beloved wife of H. R. Campbell Litchfield, Surgeon, on May 17, at Twickenham, of consumption.

MACRAE, FLORENCE, widow of the late Alexander Macrae, Esq., M.D., Surgeon of H.M.'s 97th Regiment, on May 23, at 3, Edwardes-place, Kensington. Friends are requested to accept this intimation.

OGILVIE, ALEXANDER, M.D., Deputy-Inspector-General, Royal Artillery, aged 79, on May 16, at his residence, Donaldina Villa, Shooter's hill.

PAGAN, JOHN M., M.D., Professor of Midwifery in the University of Glasgow, only son of the late Andrew Pagan, Esq., of Boghill, Lanarkshire, and Hallglenair, Ayrshire, N.B., on May 19, at 10, Bothwell-square, Glasgow.

RENNIE, DAVID FIELD, M.D., Surgeon 20th Hussars, eldest son of Captain Rennie, Fifeshire Militia Artillery, on April 4, at Campbellpore, Upper Bengal. Friends will please accept of this intimation.

ROBERTS, SELINA, the beloved wife of Stewart Blacker Roberts, M.D., late of Swineshead, Lincolnshire, on May 20, at South Norwood, suddenly, aged 39, to the inexpressible grief of her family. Friends will kindly accept this intimation.

ROSS, FREDERICK DUMARESQ, M.D., only son of the late Lieutenant-Colonel Alexander Ross, Madras Engineers, on May 20, at Waterloo, Hants, in his 35th year.

SARGANT, EDWARD, fourth son of William Henry Sargant, Surgeon, Bletchingley, Surrey, on May 25, in his 19th year, after a lingering illness of upwards of four years' duration.

WARING, RICHARD, M.D., F.L.S., aged 88, on May 21, at Marlings, near Chiselhurst.

WHITWELL, JOHN MAUDE, B.M. and M.A., of Pembroke College, Oxford, son of John Whitwell, Esq., of Bank-house, Kendal, on May 21, at Villa Constance, Biarritz, of bronchial consumption, which commenced when he was resident on duty at University College Hospital, London.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Gravesend and Milton Union.—Dr. Sandys has resigned the Gravesend District; area 568; population 7152; salary £70 per annum.

Rugeley Union.—The Rugeley District is vacant; area 1542; population 10,737; salary £50 per annum.

Wetherby Union.—Mr. J. G. Smith has resigned the Fourth District; area 2540; population 650; salary £8 per annum.

APPOINTMENTS.

Basford Union.—Arthur Matthews, M.R.C.S.E., to the Kirkby District; William Legge, M.R.C.S.E., L.S.A., to the Codnor Park District.

Burton-on-Trent Union.—William Garneys, M.R.C.S.E., L.S.A., to the Repton District.

Cardiff Union.—David E. Jones, L.R.C.P. Edin., M.R.C.S. Edin., to the Cardiff South District.

Glendale Union.—Henry R. Fawcus, M.D. St. And., M.R.C.S.E., L.S.A., to the Ford District; William A. Paxton, M.B. Dub., M.R.C.S. Edin., to the Lowick District.

Holbeach Union.—Henry G. Sturkey, M.R.C.S.E., L.R.C.P. Edin., to the Gedney Hill District.

Oundle Union.—Thomas C. Bailey, L.R.C.P. Edin., M.R.C.S.E., to the Weldon District.

Thrapston Union.—Thomas C. Bailey, L.R.C.P. Edin., M.R.C.S.E., to the East District.

Torrington Union.—Richard A. Rouse, M.R.C.S.E., L.S.A., to the Peters Marland District.

THE DUC DE BRABANT, the only son of the King of the Belgians, has been suffering from an attack of heart disease. Sir William Jenner has been in attendance.

PROFESSOR LE GROS CLARK.—This gentleman will commence his course of six lectures on the Principles of Surgical Diagnosis especially in relation to Shock and Visceral Lesions, in the Theatre of the Royal College of Surgeons, on Monday next.

TWENTY-FOUR statues of men of science and learning are to be placed in the new buildings of the University of London.

COLLEGIATE EXAMINATION.—During the present week the half yearly examinations for the Fellowship of the Royal College of Surgeons have been going on in that institution, and, judging from the unprecedented number of the candidates who offered themselves on this occasion, it would appear either that the distinction is more desired than heretofore, or that the examination necessary for obtaining it is thought less formidable. Whether this be so the readers of the *Medical Times and Gazette* may judge from the following questions on anatomy and physiology submitted to the fifty-two candidates on Monday last, viz.:—1. Describe the articulations between the occipital bone and the spinal column. Describe also the ligaments (their position and attachments) which permit and control the movements between the head and the first two vertebræ. 2. Describe the changes which food undergoes in the small intestines, and mention the agencies by which the several changes are effected. 3. The pneumo-gastric nerve: state its origin, its general distribution, and its functions. 4. Describe the mechanism of deglutition, indicating the manner in which the several parts engaged contribute to that process. 5. Describe the retina, its connexions and structure, and mention the appearance of the fundus of a healthy eye as seen with an ophthalmoscope. 6. Give an account of the principal forms of the respiratory apparatus in animals as adapted to the medium in which they live. It must be borne in mind that answers to *four* of these questions, if correctly given, were considered satisfactory, and the same with regard to those on Surgery and pathology placed before the candidates on Thursday, and of which the following is a copy, viz.:—(a) 1. Describe the morbid conditions of a joint (say the knee), and the state of the general health which render excision of the joint expedient. 2. Mention those causes of amaurosis that exist in the eye itself, and are recognisable with the ophthalmoscope; and give an outline of one case of any such disease which you have observed. 3. State the circumstances which would render the operation for trephining the skull advisable or necessary, including those which are the direct result of the accident and those occurring soon after the accident, or at a later period. 4. Describe the different forms of harelip, explain the manner of their formation, and give a detailed account of the best method of treating those defects. 5. Describe the causes, symptoms, and treatment of tetanus. Mention any morbid conditions which have been found after death in cases of that disease. 6. Give an account of the morbid conditions of organs found after death from pyæmia. It is stated on good authority that this is the last occasion on which Mr. James Luke will act as an examiner, and that the Council will shortly proceed to elect his successor, who on this occasion will probably be Mr. Samuel Lane, Surgeon to St. Mary's Hospital.

COLLEGIATE ELECTION.—Notices have been sent to all the Fellows of the London College of Surgeons, whose addresses in the United Kingdom are known to the Secretary of that institution, informing them that the annual election of Fellows into the Council will be held on Thursday, July 2, at 2 o'clock, when the vacancies caused by the decease of Sir William Lawrence, Bart., and of the retirement in the prescribed order of Mr. Joseph Hodgson, Mr. Richard Partridge, and Sir William Fergusson, Bart., will be filled up. These gentlemen are eligible for re-election; it is generally understood, however, that Mr. Hodgson declines to be put in nomination. The official notice of the election meeting also encloses extracts from the Charter and By-laws relating to the election of members of the Council, from which it appears that every Fellow desirous of a seat in the Council must, within the ensuing ten days, deliver to the Secretary of the College, the forms properly filled up, declaratory of his intention of becoming a candidate. We give this caution owing to the increasing number of candidates for the four vacant chairs.

DEODORISING POWER OF DRY EARTH.—The discovery has recently been made in Europe, and is now exciting some attention in the scientific world, that dry earth possesses decided powers of deodorisation. An English Physician, residing temporarily in Italy, had his attention drawn to the fact by a labourer who, in cleansing a filthy cesspool, so applied the dry earth as to absorb the odour. We suspect that the negroes in America made the discovery several generations back. As long since as we can remember, we know of their burying their clothing in the earth for a few days, as the most effectual mode of removing the unpleasant odour which the

(a) The time allowed for answering these questions in writing was from 1 to half-past 4 p.m.

skunk imparts under certain circumstances.—*Pacific Medical and Surgical Journal, April.*

The Royal Medical College, Epsom.—The fourteenth election of foundation scholars into this excellent institution took place on Tuesday last, when ten out of the fifty-one candidates were successful—viz., Edward Octavius Croft, 8551 votes; Ernest Sutton Smith, 7990; Thomas Benjamin Oliver, 7980; George Alfred Pritchard, 7347; Aubrey Milner Elston, 7075; Francis George Gray, 6751; William Burridge, 6739; William Loch Orton, 6407; Alfred Milnes Dugdale, 6355; Percy Barrett, 6065. A correspondent draws attention to the fact, that out of the large number seeking admission to the Epsom College only 11 were subscribers to the fund.

Female Nursing in Military Hospitals.—We understand that a Committee from the War Office has been directed to meet at the Royal Victoria Hospital, Netley, to inquire into matters connected with the practical working of the system of female nursing in military Hospitals as in existence at that establishment. This is a subject to which we have on former occasions directed our attention, and we trust that the labours of the Committee may result in benefit to the public service.

Dr. Odling illustrated in last week's Friday evening lecture, at the Royal Institution, the remarkable fact announced by Mr. Grove more than twenty years ago, that when water is subjected to very high temperatures—*e.g.*, about 3000° C.—a part of it undergoes decomposition, and is converted into a mixture of hydrogen and oxygen, which mixture can be exploded in the usual way and made to form water again. The experiment was performed by passing steam from a flask, in which water had been kept boiling for several hours to expel the air, through a coil of platinum tube on which the flame of the oxyhydrogen blowpipe was made to play; the resulting mixed gas was collected in a tube. The lecture was interspersed with explanations of the relations of heat to various kinds of chemical action, and with a variety of popular experiments.

The Council of the Royal Medical and Chirurgical Society recommend the following gentlemen for election as Honorary Fellows:—Charles Darwin, M.A., F.R.S.; Joseph Dalton Hooker, M.D., D.C.L., LL.D., Director of the Royal Gardens, Kew, etc.; Thomas Henry Huxley, LL.D., Professor of Natural History in the Royal School of Mines, Hunterian Professor of Comparative Anatomy in the Royal College of Surgeons, and Fullerian Professor of Physiology in the Royal Institution; Sir Charles Lyell, Bart., D.C.L., LL.D.; John Tyndall, LL.D., Professor of Natural Philosophy in the Royal Institution, and Royal School of Mines. They also recommend the following gentlemen for election as Foreign Honorary Fellows:—Samuel D. Gross, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia, etc.; Albert Kölliker, Professor of Anatomy at Würzburg; Hippolyte Baron Larrey, Member of the Institute, Inspector of the "Service de Santé Militaire," Member of the "Conseil de Santé des Armées," Commander of the Legion of Honour, Surgeon in Ordinary to the Emperor, etc.; Auguste Nelaton, Member of the Institute and of the Imperial Academy of Medicine, Professor of Clinical Surgery to the Faculty of Medicine, Surgeon to the Emperor, etc.

The St. Thomas's Hospital Biennial Dinner took place on Thursday, the 21st inst., at the Cannon-street Hotel, Dr. Barker in the chair. There were upwards of 200 old St. Thomas's students present. After the usual loyal toasts, the Chairman proposed "Prosperity to St. Thomas's Hospital." In the course of his remarks, Dr. Barker said that he had some difficulty in realising that he no longer had an official connexion with the staff of St. Thomas's, although he appreciated the honour which had been conferred upon him by his recent appointment as Consulting Physician to the Hospital. The Treasurer, in replying to the toast, reminded the company how much the prosperity of the Hospital depended upon the assistance rendered by old St. Thomas's students. An opportunity was afforded of examining views of the proposed plans for the new Hospital, which Mr. Currie, the architect, who was among the invited guests, had kindly sent for inspection.

St. Bartholomew's Hospital Medical College.—Examinations, 1868.—*Senior Scholarship in Medicine, Surgery, and Midwifery:* A. F. Field and T. H. Hendley. *Senior Scholarship in Anatomy, Physiology, and Botany:* H. Alder Smith and A. E. Cumberbatch. *Bentley Prize:* W. Deane Butcher. *Kirkes Medal:* A. F. Field. *Practical Anatomy, Senior*—Foster Prize: A. E. Cumberbatch and H. Alder Smith (equal); C. F. Gray; F. H. Bodmin; G. P. Skrimshire and S. G. Sloman (equal); W. G. Lowe; G. S. Payne; P. B. Stoney and H. Symons (equal). Wix Prize: A. F. Field. Hichens Prize: A. F. Field. *Practical Anatomy, Junior*—Treasurer's Prize: W. J. Walsham Examiner's Prize: A. H. G. Doran; C. J. Newton; G. A. Phillips and W. R. Smith (equal)

Astley Cooper Prize.—The Triennial Prize of three hundred pounds, under the will of the late Sir Astley P. Cooper, Bart., will be awarded to the author of the best essay or treatise on the Anatomy and Physiology of the Lymphatic System. The adjudicators will consider that essay to possess most merit which contains additional facts respecting the existence of lymphatics in those tissues and organs hitherto thought to be devoid of them; or demonstrates the mode in which they originate, or communicate with the blood-vessels; or explains the functions of the lymphatic vessels and glands in the animal body. The condition annexed by the testator is, "That the essays or treatises to be written for such prize shall contain original experiments and observations, which shall not have been previously published; and that each essay or treatise shall (as far as the subject shall admit of) be illustrated by preparations and by drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital, and shall, together with the work itself and the sole and exclusive interest therein and the copyright thereof, become henceforth the property of that institution, and shall be relinquished and transferred as such by the successful candidate." And it is expressly declared in the will "that no Physician, or Surgeon, or other officer for the time being, of Guy's Hospital or of St. Thomas's Hospital, in the borough of Southwark, nor any person related by blood or affinity to any such Physician or Surgeon, for the time being, or to any other officer for the time being in either of the said Hospitals shall at any time receive or be entitled to claim the prize." But, with the exception here referred to, this prize is open for competition to the whole world Candidates are informed that their essays, either written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1, 1871, addressed to the Physicians and Surgeons of Guy's Hospital. Each essay or treatise must be distinguished by a motto, and be accompanied by a sealed envelope containing the name and address of the writer. None of the envelopes will be opened, except that which accompanies the successful treatise. The unsuccessful essays or treatises, with the illustrative preparations and drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

W. T. B.—The *London Hospital Reports* and the *Medical Times and Gazette*

X.—The fee for the Fellowship of the Royal College of Surgeons of England payable by members is ten guineas.

Richardson Testimonial.—In our report of the meeting last week we erroneously stated that Mr Holt Dunn acted as secretary to this testimonial, whereas we should have given the name as Mr R. W. Dunn, of 13, Surrey-street, Strand, whose active services, together with those of Mr. R. Dunn, the gentleman who responded for the officers, tended greatly to the success of this movement.

Meeting of Poor-law Medical Officers.

To the Editor of the Medical Times and Gazette.

Sir,—I should feel obliged by your insertion of the following in this week's *Medical Times and Gazette*. I am, &c.

4 Dean-street, Soho, May 27 Josh. Rogers.

To the London and Provincial Poor-law Medical Officers.

Gentlemen,—The proposed aggregate meeting of Poor-law Medical Officers will be held at the Freemasons' Tavern, Great Queen-street, Lincoln's-inn-fields, on Wednesday, June 24, at 2 p.m. precisely, W. J. Clements, Esq., M.P. for Shrewsbury, in the chair.

Poor-law Medical Officers desirous of taking part in the proceedings, or willing to act as local honorary secretaries, are earnestly requested to communicate without delay with Their obedient servant,

Josh. Rogers.

The Slade Bequests.

To the Editor of the Medical Times and Gazette.

Sir,—I beg to enclose a list of the Medical institutions and charities to which the late Mr. Felix Slade, of Walcot-place, Lambeth, bequeathed legacies, and also those to which his executors have given donations from the sum left at their discretion for that purpose. By way of example,

you may, perhaps, think it desirable to give this addition [illegible] publicity in the pages of the *Medical Times and Gazette*.

I am, &c.

15, Lambeth terrace, May 27. CHARLES COLLAMORE.

By will, all free of duty:—Leeds Infirmary, £500; North London Hospital, £500; Paddington Fund, £500; Truss Society, £500; Royal Free Hospital, £500; Infirmary for Children, Yorkroad, £500; South London Dispensary, £500; Surrey Dispensary, £500; Royal Medical Benevolent College, £500; Hospital for Skin Diseases £500; Charing-cross Hospital, £500; Lying-in Hospital, York road, £500; Metropolitan Convalescent Institution, £500; Margate Sea-bathing Infirmary, £500; *Britannia* Hospital Ship £500.

Medical Institutions, etc., selected by executors:—London Hospital, Mile-end, £500; King's College Hospital, £500; Eastbourne Convalescent Hospital, £50; St. Pancras Dispensary, £25; Medical Benevolent Fund, £100; Scholarship Medical Benevolent College, £50; St. Thomas's Hospital, £52 10s.; Royal Hospital for Incurables, £100; St. Mark's Hospital, £100; Children's Hospital, Ormond street, £50; Cripples' Home £50; National Sanatorium, Bournemouth, £100; St. Andrews Convalescent Hospital, £50; Seaford Convalescent Hospital, £50.

Executors:—Edward Wadeson, Esq.; Charles Collamore, Esq.; Richard Fisher, Esq.; Augustus Franks, Esq.

RECOVERY OF FEES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you be kind enough to inform me, through the medium of your valuable journal, whether I can recover debts due to me prior to registration? As I only registered last week, I am in doubt on the subject.

I am, &c. K.

May 25.

* Sect. 32 of the Medical Act says that the Practitioner must be registered. You are registered; so try it.

COMMUNICATIONS have been received from—

Dr. J. F. BLAKE; Dr. WALLER; W. T. B.; Mr. CALLENDER; Dr. J. KERSHAW; X.; MAHLE; Mr. THOMAS HUNT; Messrs. A. and C. BLACK; Mr. T. P. PHILLIPS; Mr. C. G. CAMPBELL; Mr. C. J. FOX; Dr. MURRAY; Mr. SPENCER WELLS; Dr. A. BALMANNO SQUIRE; Dr. HUGHLINGS JACKSON; Dr. BARNES; Dr. DAY; Dr. BAUMLER; Dr. GRIGGS; Dr. S. W. D. WILLIAMS; Dr. JAGO; Dr. JAMES RUSSELL; Col. G. A. ELLIOT; Dr. JOSEPH ROGERS; Dr. YELD; Mr. JOHN BROOM; Mr. CHARLES COLLAMORE.

BOOKS RECEIVED—

Kent County Lunatic Asylum Report—Coroner's Report for the Central District of Middlesex—American Journal of Medical Sciences, No. 110—Hunter on Strychnia—Our Doctor—London Hospital Reports, vol. 4—Hanover square, No. 8—Mapother on the Medical Profession—Dublin Quarterly Journal of Medical Science, No. 90—Report of the Royal Edinburgh Asylum for the Insane—Thoughts of a Physician.

NEWSPAPERS RECEIVED—

Brighton Examiner—Indian Medical Gazette—Dublin Evening Post—Manchester Mercury—Medical Press and Circular—Christian Times—Colonial Standard.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 23, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to each Acre. (Density.)	Births Registered during the Week ending May 23.	Deaths. Corrected Average Weekly Number.	Deaths registered during the Week ending May 23.	Temperature of Air (Fahr.). Highest during the Week.	Lowest during the Week.	Mean of the Daily Means.	Rain Fall. In Inches.	In Tenths per Acre.
London (Metropolis)	[illegible]	[illegible]	[illegible]	1442	1252	[illegible]	42·1	[illegible]	[illegible]	[illegible]
Bristol (City)	167[illegible]	33·7	10[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Birmingham (Boro')	[illegible]	[illegible]	[illegible]	171	139	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Liverpool (Borough)	[illegible]	[illegible]	401	299	255	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manchester (City)	366835	51·8	284	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Salford (Borough)	117162	22·7	[illegible]	[illegible]	58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sheffield (Borough)	2[illegible]	[illegible]	167	122	1[illegible]	[illegible]	4[illegible]	[illegible]	[illegible]	[illegible]
Leicester (Borough)	108419	16·4	99	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Leeds (Borough)	[illegible]	[illegible]	[illegible]	[illegible]	112	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hull (Borough)	[illegible]	[illegible]	75	50	44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Newcastle-on-Tyne, do.	[illegible]	[illegible]	165	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Edinburgh (City)	177039	40·0	[illegible]	[illegible]	79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Glasgow (City)	44[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dublin (City and some suburbs)	[illegible]	[illegible]	176	157	137	71·7	41·5	55·3	0·00	·01
Total of 14 Towns	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Towns	[illegible]	[illegible]	[illegible]	[illegible]	2787 Week ending May 23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Vienna (City)	(1869)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

At the Royal Observatory, Greenwich, the mean height of the barometer [illegible] May 23rd [illegible] May.

* The deaths in Manchester and Bristol include those of persons belonging to those cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 57·5

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 23, 1868.

BIRTHS.

Births of Boys, 1067; Girls, 1[illegible]; Total, 2[illegible].
Average of 10 corresponding weeks, 1858-67, 1871·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	674	578	1252
Average of the ten years 1858-67	630·1	579·4	1209·5
Average corrected to increased population ..	..	..	1426
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus.	Diarrhœa	Cholera
West ..	463,388	2	12	9	..	4	2	3	..
North ..	618,210	5	8	13	.	10	8	5	1
Central	378,058	..	2	3	1	8	3	1	..
East ..	571,158	2	17	4	4	13	14	7	..
South ..	773,175	4	25	6	1	24	11	2	..
Total ..	2,804,089	13	64	35	6	59	[illegible]	18	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·77 in.
Mean temperature	59·4
Highest point of thermometer	87·0
Lowest point of thermometer	44·4
Mean dew-point temperature	50·9
General direction of wind	Variable.
Whole amount of rain in the week	0·2

APPOINTMENTS FOR THE WEEK.

May 30. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9 a.m.; Kings, 2 p.m.; Charing-cross, 1 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Grant, "On Astronomy."

June 1. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m. and [illegible] p.m.

[illegible] SOCIETY, 8 p.m. Assistant-Surgeon Sutherland, "On Epidemic Fever in the Punjab, N.W. and Central India, in 1867." (Communicated by the Director-General Army Medical Department.)

GEOLOGICAL SOCIETY, 8 p.m. Mr. Christopher Heath, F.R.C.S., "On Ligaments of the Joints."

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Le Gros Clark, "On the Principles of Surgical Prognosis especially in relation to Strumous and Visceral Lesions," Lecture I.

ROYAL INSTITUTION, 3 p.m. General Monthly Meeting.

2. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 3 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1 p.m.; Great Northern, 2 p.m.; St. Peter's, 1 p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan, Hyde park, 2 p.m.

[illegible] 1 p.m. Prof. De Morgan, "On Probabilities."

[illegible] 2 p.m. Dr. Sibson, "On Respiration."

Victoria Institute, 8 p.m.

ODONTOLOGICAL SOCIETY, 8 p.m. (Members' Conversazione.) 7 p.m. Council.

[illegible] Hospital, 2 p.m. Dr. Dickinson, "On Diseases of the Liver."

Ophthalmic Hospital, Southwark, 2 p.m. Mr. Critchett, "On Strabismus."

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London Ophthalmic Hospital, 2 p.m.; West London Hospital, 2 p.m.

University College Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Sir B. Brodie, "On Sleep."

5. *Friday.*

Operations at Westminster Ophthalmic, 2 p.m.; Royal Free, 2 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Le Gros Clark, "On the Principles of Surgical Prognosis especially in relation to Strumous and Visceral Lesions," Lecture II.

Victoria Institute, 8 p.m.

ROYAL INSTITUTION, 3 p.m. Sir B. Brodie, "On Alpenstocks."

WESTMINSTER MEDICAL AND SURGICAL SOCIETY, 8 p.m. Annual Meeting. Election of Officers for the ensuing Session. Reading [illegible] and the Financial Account will be read. Pictorial Illustrations [illegible] Specimens of Cases and Exhibition of Specimens.

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

Apoplexy.

(*Concluded from page 546.*)

Treatment.—Now, first of all, as regards bleeding, I will make some general remarks with respect to this, as it will save me much repetition. This was once the universal remedy; now it is all but discarded. How do you account for this? You must ask the older members of the Profession, who at one time practised one method and now another; you will receive for answer that disease has changed its type, that fever was different half a century ago from what it is at the present day, that pneumonia was different then from what it is now. But how about this disease which we are considering—apoplexy? Is the bursting of a blood-vessel different now from then? In answer to this it will be said that the type of disease not only has changed from its own inherent nature (whatever a disease is *per se*), but the patient has changed; there is not that vigour of constitution which formerly existed amongst us, and therefore, although apoplexy cannot have altered its character, the sufferer is a different man. You have often heard me express my opinion about this doctrine of change of type. I do not believe a word of it. I have read descriptions of disease in the works of our older authors, and I fail to discover the difference between these and those of modern writers. Then, as regards any impoverishment or deterioration of the human race, there is no proof of this. When a handful of men the other day reconquered India, how could we believe in the diminished prowess of our countrymen? You may remember that in Shakspeare's "Henry V." the King, speaking on the day of the battle of Agincourt, exclaims—

> This day is called the feast of Crispian.
> He that outlives this day, and comes safe home,
> Will stand a tiptoe when this day is named,
> And rouse him at the name of Crispian.

Now it is very remarkable that on that very day of November, more than four centuries after, there was fought the battle of Balaklava, and I would ask whether our soldiers showed they were the degenerate descendants of the conquerors of Agincourt when came the cry—

> Forward the light Brigade!
> Was there a man dismayed?
> Into the valley of death
> Rode the six hundred.

As the question turns so much upon the subject of bleeding, I have taken the pains to inquire whether the results were different some years ago than now, but I cannot learn that they were. I know at the present time people receive severe injuries, and lose pints or quarts of blood, and the Surgeon treats the matter with indifference. And, as regards the effects of bleeding formerly, I had often asked the late Mr. Monson Hills as to his experience when persons came here, especially at the "spring and fall," to be bled by the dozen or twenty every morning. After I had supposed that they would walk in and as quietly walk out after the operation, he would answer "no such thing"—they very commonly fainted, and they might be seen lying in rows on the surgery floor like so many slaughtered sheep.

I have read a good deal of what has been said about this change of type, and I am still waiting for a single good fact to substantiate it. What are the probabilities in favour of a change of type rather than of a slight error in observation? What are the presumptions in favour of this change? because when one of our Profession is charged with treating his cases differently now in his old age from what he did in his youth, he exclaims, "My principles are not changed; Nature has changed! I used then to take a few ounces of blood from my patient with fever or pneumonia, and now I give him a few ounces of wine instead; the majority recovered then, and only a few die now. Surely disease has altered its type." The fallacy lies in the undue preponderance given to the influence of simple remedies; and thus the importance to us of studying the progress of disease uncomplicated by our interference, and passing unheeded the sneering allusions occasionally made to the truly scientific procedure of the study of the natural history of disease.

The question of bleeding, then, I discuss with no reference to any fanciful opinions about the change of type of disease. I believe an apoplectic man, if it be thought useful, will bear venesection at the present time as well as he could half a century ago; and what is fifty years in the world's history? If I can show you that patients benefit now by bleeding, I suppose we must conclude that the type has altered once more. I am not, however, going to do this, for I have little experience to guide me as to its use in many cases in which it was formerly practised. If you read the older writers, you will perceive that they did not discriminate between the general effects and the local or mechanical effects of blood-letting. They had a notion, which is opposed almost universally to the doctrine held at the present day, that inflammatory disease, including fevers and the pyrexiæ, were due to increased vital actions going on in the body—that the blood was too much in quantity, too rich, or too stimulating. Consequently disease was to be "knocked down" by bleeding, purging, blistering, etc. When, therefore, a man was bled on suspicion of an inflammatory attack, and this did not appear, the conclusion was that the disease was arrested. It is difficult, however, to form an estimate of such cases, but when you read of the Doctor being called in to a patient who was sitting up in bed or in his chair purple in the face, and gasping for breath as if every respiration would be his last, and you read how the Doctor took out his lancet and bled the patient *pleno rivo*, all the while the face resuming its natural colour and the breathing becoming tranquil, you can have no doubt of its efficacy. In this case you will perceive that the lungs were gorged, the right side of the heart loaded, and that the lancet came just in time to disencumber the over-burdened organs, and so allowed them free play again for their functions.

The effects for evil or for good of venesection, having for its object the arrest of inflammatory processes, have not been ascertained with sufficient accuracy to warrant me in offering an opinion as to its value. I have seen, however, a sufficient number of cases bled to know that it is not a very fearful measure: in fact, if I were obliged to adopt one method only—that of venesection or brandy-giving—I know which I should prefer.

It has fallen to my lot to have seen three patients with typhoid fever bled, and it is remarkable that they all got well. It is very extraordinary what importance we attach to the artificial withdrawal of a few ounces of blood, and yet we see our patient with typhoid fever have a large hæmorrhage from the bowel, and we have no fear. The Surgeon treats his cases of fractured skull and fractured leg without much regard to the pints of blood which have flowed away.

When I refer, however, to bleeding as a means of relieving engorged lungs and heart, I can speak with some certainty and authority. I have no hesitation in saying that I have saved patients' lives by the treatment, the cases in which I have adopted it being bronchitis, heart disease, apoplexy, and epilepsy. Now you must remember that the indications for bleeding in these cases are very different or very opposite to those which would suggest its employment in the first class of cases, and it is owing to this being not rightly understood that the practice is not more frequently adopted. A patient was bled because his pulse denoted an inflammatory condition—it was full and hard. The tradition has passed down, and thus, at the present day, when, meeting a Medical man in consultation over a case of chronic bronchitis, I have suggested the propriety of bleeding, he has often said, "I dare not; the pulse is scarcely to be felt, and the patient is dying. The removal of a few ounces of blood would be the finishing stroke." Herein lies the error. If bleeding is of use in the cases I name, it is to relieve congestion of the lungs and heart. And it is especially in severe cases of bronchitis, such as we have seen this last winter, that I would recommend it. You see your patient sitting up in bed, face, tongue, and lips blue or purple, and the jugular veins starting out of the neck, and often visibly pulsating; the heart beating quickly, and perhaps with a tricuspid bruit, showing the gorged right heart and obstructed lung. The veins in the body are full to bursting; the heart can scarcely work longer, as it cannot get rid of its blood, and yet all the while little passes into the left side, which again meets with an obstacle in its action by the engorgement of the universal capillary system. The pulse is, as you might expect, very small, very weak, or scarcely to be felt. Because this is its character, the Doctor is not to bleed. He thinks he is to feel the state of the artery in order to know if the venous system wants emptying, and discards the proposition for bleeding

because the pulse is as I state. It is exactly the pulse joined with the other indications which point to the remedy.

Well, without discussing it further, if you take away blood from such a person, you relieve the heart and the lungs, the circulation becomes freer, and the pulse improves in fulness. Many years ago I was asked to see a little boy suffering from bronchitis after hooping-cough. He was lying half raised on a pillow gasping for breath, his face livid, eyes starting out of his head, and the superficial jugular making itself most apparent. The Medical attendant and myself looked at this vein, and, in spite of the protestations of the father, opened it, and let out a few ounces of blood. The lividity passed off, the child sank back on the pillow into a tranquil sleep, and from that time recovered. You must make no comments upon the valves at the commencement of the jugular veins, for, in spite of these, the blood will run out in abundance.

Many of you in this room saw the case of epilepsy which one of my clerks bled a few months ago. This man was a strong agricultural labourer, and came here suffering with severe epileptic fits. One day, on going round, we were informed that he had never been out of a fit for four hours. We found him lying in bed with constant convulsive movements, but the most striking condition was the engorgement of his lungs, his labouring heart and increasing lividity of the surface of the body. I requested that he should be bled, and one of you, wishing to do well at his first attempt, or from the lancet being over sharp from disuse, fulfilled my object to the utmost; the blood poured out in a torrent; the face rapidly became pale; the man opened his eyes and spoke for the first time since the morning, the interval having been a blank to him. The effect was one of the most striking that I have ever witnessed. It is worthy of note also that he had no fit for a long time afterwards. In heart disease, the blood which comes up spontaneously when the lungs are apoplectic affords often the greatest relief to the patient. The rule is to give remedies to arrest it, but the beneficial effects to the patient in spite of our vain attempts to prevent them have been so striking in two or three instances which I have now in my mind's eye, that I cannot do otherwise than speak strongly on the subject

Finally, I come to the subject which suggested these remarks, the treatment of apoplexy by bleeding. It was recommended, and is so still by some, for the reason that it diminishes the amount and force of blood in the system, and so tends to lighten the pressure within the cranium, also that it prevents the tendency to subsequent inflammatory action. I have always felt some difficulty in receiving this explanation, because, if of any use towards the object named, it ought to be performed at the onset of the attack, but this is the time when the patient is collapsed, and you are recommended to give a stimulus, which, indeed, often appears to be absolutely necessary. After reaction sets in, I believe blood-letting is often useful, but whether to diminish the flow of blood to the brain I cannot say, but, to relieve the congested and paralysed chest and lungs, it is often very useful. The patient often dies directly through the lungs, and if you can relieve these and give him a few hours' respite, he might just get over the critical moment. I should think the cases in which we read of immediate cure by bleeding were really those of epilepsy. Once more, then, bleeding in order to relieve congested lungs is highly useful, but whether of advantage as one of the old antiphlogistic remedies to combat inflammatory disease I am uncertain.

I could not inform you of its exact value unless I had statistics before me. It is one thing to recommend you to adopt a method because it forms a part of a given routine plan; and another to exhort you to the use of particular remedies, because experience and a discriminative trial have found them useful. Thus, if you are called to a person seized with an apoplectic fit, and you find him collapsed, you administer stimulants, which, under the circumstances, are necessary. If you see him at a later stage when the coma and stertor are on, I have no objection to your bleeding him if other circumstances permit. At the same time the endeavour is to withdraw the blood to distant parts, and thus mustard poultices are placed around the calves, and a blister to the back of the head. I order these because others do. But I cannot demonstrate to you their exact value. The next thing is to give a purge, as some calomel or croton oil. I think all are agreed as to the beneficial effect of aperients; indeed, in a large number of cerebral troubles, purging is of the utmost value. Then, if the patient recovers, it is the fashion with some to give mercury to prevent inflammation. I have seen this adopted on several occasions, and I cannot say that I have seen the slightest good accrue; but, on the contrary, it has tended to weaken the affinities of the cerebral tissues and promote their disorganisation. I do not know that mercury has any effect in arresting inflammation. It is a drug which appears to act on all the secretory organs of the body, and thus promotes various physiological processes. Consequently it will often cause the absorption of inflammatory products already poured out. During convalescence the question of lowering or supporting treatment is all-important, but must depend on circumstances. I lately saw a man lying in bed totally hemiplegic two weeks after the seizure, and pursuing the old-fashioned antiphlogistic plan. His condition suggested an opposite method, and being put on a mutton chop and pint of porter for dinner, he began rapidly to improve. The recuperative process required further aid from nourishing diet. It is a common practice to apply cold lotions to the head, but then the same thing is done in arachnitis, in fever, or delirium tremens—indeed, in all cerebral disorders. It is impossible this can be either rational or useful. This, again, is a routine method which requires a very strict analysis. If I do not misapprehend Dr. Chapman's theories, the proper application in apoplexy or arachnitis would be hot water to the back of the neck.

ORIGINAL COMMUNICATIONS.

ON ANIMAL-PARASITE DISEASES OF THE SKIN.

By BALMANNO SQUIRE, M.B., F.L.S.,
Surgeon to the West London Dispensary for Diseases of the Skin.

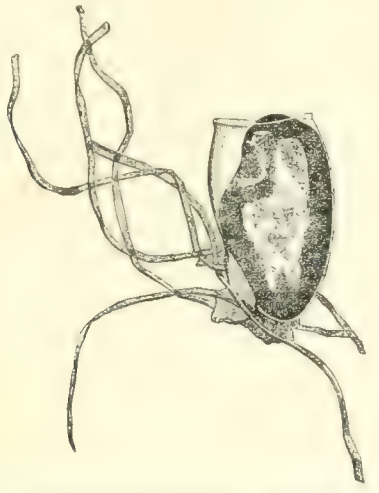
(*Concluded from page* 524.)

It may appear surprising that so mysterious, so severe, and so obstinate a disease as prurigo, if it be indeed capable of so simple a solution as the one we have advanced, should nevertheless so long have remained a mystery, and this may seem a reasonable cause for mistrusting our conclusions; but a consideration of the habits of the pediculus will, we think, sufficiently account for the fact of the constant presence of this parasite in cases of prurigo having been generally overlooked even for so long.

On stripping a person affected with prurigo, it would scarcely occur to any one who was unacquainted with the fact that the disease was produced by a pediculus. The pediculi are rarely numerous enough to arrest the eye, and, more than this, even a careful scrutiny of the skin, including in the survey the parts of it that are most affected with eruption, will in the majority of cases fail to detect the presence of a parasite—not even a *nit* is to be seen on any part of the skin or on any of the hairs growing from it. Now the head-louse (pediculus capitis) and the crab-louse (pediculus pubis), in cases where the insect itself is not readily to be found, may always be readily detected by means of the nits attached to the hair of the part they inhabit. It is scarcely to be wondered at, then, that the part played by the pediculus corporis should have been so often overlooked. The parasite dwells not on the skin, but on the underclothing. It is on the inner surface of the undermost article of clothing, whatever it may be, that the parasite is to be sought for, and here it is not always very easy of discovery. As already stated, the pediculi are rarely to be found in numbers; a very few of them are capable of causing very severe irritation. A careful investigation of the patient's shirt may lead to no result, and yet his disease may be due solely to the pediculus. As we have already remarked, the parasite nestles between the "gathers" or "pleats" of the shirt, or between the folds into which about the waist the shirt is compressed by the waistband. The nits of the pediculus (vide woodcut) are also to be found in the same situations, but occasionally a large cluster of them is to be found at some other part of the shirt.

It should here be explained that the three varieties of louse that infest the human skin vary considerably in their habits. Thus, the pediculus capitis, or head-louse, although it feeds on the skin, dwells on the hair of the head, and also deposits its eggs on the hair—the pediculus corporis, as we have seen, also feeds on the skin, but it dwells on the underclothing, and deposits its eggs on the underclothing—the pediculus pubis likewise feeds on the skin; unlike the other two varieties, it

also *dwells* on the skin, but it deposits its eggs, as the pediculus capitis does, on the hair. It is because the body-louse dwells on the underclothing, and also deposits its eggs on the underclothing, that prurigo is so obstinate a disease. Even when, for the sake of cleanliness, efforts are made to destroy the pediculi which are "generated" by it, the means are generally limited to applications made to the patient's skin, and are therefore futile.



Nit of the pediculus corporis (engraved from a microphotograph). At its "posterior pole" the nit is glued by a rough lump of gum like material to the fibres of the shirt, some of which, torn away in removing the nit, remain attached to it.

Many Practitioners acquainted with our views as to the nature of prurigo have said, "Well, if the disease be due to the cause you attribute it to, I suppose a warm bath ought to cure it." A warm bath, however, has not even the slightest influence in abating the disease, and the reason of this is that the moment the patient resumes his clothes the process of hatching the ova that are sprinkled over the inner surface of his shirt recommences, and he becomes speedily as bad as ever. On this being pointed out to advocates of the warm bath, they have generally modified their proposal by suggesting that while the patient went into the warm bath his clothes should go to the wash, and that after his bath he should put on clean linen. This is a very simple way of dealing with the thing, but unfortunately it is not so easily to be disposed of.

It is well known that the lowest forms of animal life are, speaking generally, much more tenacious of existence than their superiors in the zoological scale. It will not, therefore, appear extraordinary if we assert that the process linen undergoes in "the wash" does not suffice to destroy efficiently the ova of pediculi attached to the linen; but, whether this may seem likely or not, we have ascertained that the going to the wash does not disinfect the linen. The patient, whatever means may be taken to destroy the pediculi, has thus a constant supply of the disease (so to speak) stored up in his wardrobe. Every time he puts on a clean shirt, he puts on, if one may say so, a fresh supply of prurigo—that is to say, he clothes himself in linen studded with ova which only require the genial warmth of his body to mature them into the parasites on the presence of which prurigo depends.

The case of the nobleman that we quoted before becomes after this intelligible. We can see how it is that he could never get freed from his pediculi, for nobody then knew how to rid him of them.

The only way to destroy the ova in the clothes is to bake them, and this unfortunately, with the class amongst which prurigo is most common, is not an easy thing to arrange, since the poor, when affected with prurigo, are invariably treated as out-patients. If, however, there be practical difficulties in the way of radically curing prurigo by the adoption of means that would suffice to cure cases of many years' standing in the short space of half an hour, we may at least seek for the most manageable palliatives.

A due appreciation of the tenacity of life displayed by the pediculus, of the nature of the substances which are really calculated to destroy him, and of the rapidity with which lotions applied to the surface of the body evaporate and disappear, to say nothing of the difficulty of efficiently applying them to the skin, which being always rather greasy causes them to run off it like rain from a duck's back—these considerations will explain how it is that "the local applications" which "have been praised" are, as Sir Thomas Watson says, "in most cases used in vain." He mentions vinegar, lime-water, decoctions of dulcamara, lotions composed of prussic acid in an emulsion of bitter almonds, a dilute solution of creasote, decoctions of stavesacre and of digitalis; continuing this list, he mentions ointments containing mercury, tar ointment, and "a hundred others;" he then tells us how, in a case which had withstood other treatment, he succeeded by the use of aconitine ointment, and how Mr. Gabb had found a weak dilution of the liquor sodæ chlorinatæ very serviceable.

Now, by the above list, which may be taken as comprising all the local applications most in favour for the treatment of prurigo, it will be found that lotions are more in fashion than ointments, and this circumstance accounts to us for the general condemnation with which Sir Thomas visits the whole batch. Amongst the lotions is mentioned a decoction of stavesacre. Now, we have found stavesacre a most valuable external application in cases of prurigo, but we nevertheless endorse the opinion that the decoction is a most worthless preparation for the purpose. This we shall explain further on. But Sir Thomas also condemns "ointments containing mercury." Now, if we were to agree with him in this, we must needs give up all that we have advanced, for everybody knows how justly mercurial ointment (in the shape of white precipitate ointment) is prized by poor mothers as a sovereign remedy against vermin in their children's heads, and every one knows, too, how speedily mercurial ointment will exterminate crab lice. However, Sir Thomas modifies his censure, in so far as it refers to mercurial ointment, by the following remarkable note, which it is important to our argument to quote, and which runs thus:—

"Since the republication of these lectures in America, I have been favoured by Dr. Bowling, of Adairville, in Kentucky, with an account of a plan of treatment which he has found eminently successful against this distressing malady, and which ought, therefore, to be made generally known. I extract that portion of Dr. Bowling's obliging letter which relates to this subject:—

"'I have, in the last fifteen years, prescribed for a great number of cases of prurigo senilis, and I can say, with a most rigid adherence to truth, that I have not failed in a single instance to effect a permanent cure. I direct that the affected parts be sponged for a minute or so with good apple vinegar, and then be allowed to dry. After this they are to be smeared over with the citrine ointment (unguentum hydrargyri nitratis). The applications are to be made twice a day. The cure is usually effected in a week. I have never known the constitutional effects of the mercury to be developed in this treatment, save in a single instance, and then but very slightly.'"

Although we are unable to appreciate the use of Dr. Bowling's apple vinegar, we cordially agree with him in his statements that the application of dilute mercurial ointment is one of the very best remedies in cases of prurigo, and that the *smearing* over of even the greater part of the surface of the body with such an application as citrine ointment is not apt to cause, even after a prolonged use of the remedy, any of the constitutional effects of mercury.

We can understand, too, Sir Thomas Watson's success in the treatment of prurigo with "an ointment containing a small quantity of aconitine," although we believe the aconitine had little to do with the cure. The fact is that greasy substances of any kind are more or less efficient remedies in cases of prurigo, and this for the same reason that olive oil or lard, *per se*, is a cure for the itch. The pediculus, like the acarus, breathes through spiracles or little apertures in its exoskeleton, which communicate with its respiratory apparatus. These minute orifices getting clogged by the grease or oil, the insect is speedily asphyxiated.

We have said that, although decoction of stavesacre is useless, stavesacre itself is an efficient remedy. The powder of the stavesacre seeds has long been employed for the destruction of head-lice, and an ointment of the powder has been long known as a very excellent remedy for scabies.

We made trial of the ointment some time since in a large number of cases of prurigo, and found it decidedly more efficacious than lard used alone. But the ointment, being anything but an "elegant preparation," owing to the coarseness of the stavesacre powder with which it was prepared, we made inquiry as to whether the powder could not be ground

finer, and found that, owing to the large quantity of oily matter contained in it, it was impossible to reduce it to anything finer than a coarse meal (for the same reason linseed when ground becomes linseed-*meal*). We accordingly had the oil removed from a small quantity of the meal by percolation with ether, and found that the meal was then capable of being reduced into a fine powder. We employed this powder in several cases of prurigo, and found it quite inert. On inquiring what proportion of oil had been extracted from the meal, we found that it amounted to as much as one half (by weight) of the meal. On making trial of this oil suitably diluted with olive oil, we found it a much more efficient remedy in cases of prurigo than either olive oil or lard, and even more efficient than mercurial ointment. It was plain from these experiments that the efficacy of the staves acre depended on its oily constituent, and this accounts for the impotence of a *decoction* of the seeds.

As to the internal remedies for prurigo, "sarsaparilla, alkalis, arsenic, iodide of potassium, opium," they are utterly useless if the cure of the disease be the object aimed at. The arsenic and iodide of potassium may operate, perhaps, in a trivial degree; since at all events they are taken up into the circulation, are noxious to insect life, and in a very diluted form must reach the pediculi, which, as we know, feed upon the blood. Moreover, arsenic, after its administration has been continued for a long time, gets deposited in small quantities in a metallic state in the tissue of the skin; but the effect of these substances must be very inappreciable, unless they be taken in such quantities as to impair seriously the health of the patient. Opium, it is true, may relieve the distress of prurigo by deadening the sensibility of the patient to the irritation of his skin, but it was never pretended that, for this disease, opium was anything better than a palliative.

Before we dismiss the subject of prurigo, it may fairly be expected of us that we should substantiate our general statement as to the extreme commonness of this disease in public practice. On this head we have to say that, of a thousand consecutive cases of skin disease of all kinds, we found one hundred and sixty-six to be cases of prurigo such as we have described it, the number of cases of scabies in the same enumeration being only one hundred and forty-six; so that, if this calculation be taken as a standard—and it must be conceded that a thousand cases afford a sufficient basis for casting a fair average—we must conclude that prurigo is a commoner disease even than scabies: that it constitutes as nearly as possible one-sixth of the number of cases of cutaneous disease that are met with in public practice, and that with scabies it constitutes about one-third of the total of skin disease in this country. So that, if we take only two of the animal-parasite diseases of the skin (and we have others yet to deal with), we can account for one-third of the persons who suffer with skin disease, and the majority of this third are persons afflicted with the most severe, the most "incurable," and one of the most chronic of the affections to which the human skin (at least, in this country) is liable.

Let us compare the frequency of these two animal parasite diseases taken together with that of the whole number of vegetable parasite diseases, in order that we may determine, so far as such a comparison will enable us to judge, the relative importance of the animal and vegetable parasite class. The sum total of cases of vegetable-parasite disease of the skin of all kinds out of the thousand cases we have quoted amounted to twenty-two, or one forty-fifth of the whole number, and this quotation includes the much-debated *tinea decalvans* (or *alopecia areata*). If we omit from our enumeration of parasitic examples cases of this disease (the parasitic nature of which is a matter of considerable doubt in the minds of some very excellent authorities), we have left only ten cases per thousand of vegetable-parasite disease of all kinds, as against 312 (a part only of the whole number of) cases of animal-parasite disease; or, in other words, we have 1 per cent. of the former to more than 31 per cent. of the latter.

Let us now leave the numerical method of comparing the importance of the one class with that of the other, and compare the importance of a single case of vegetable-parasite disease of the skin with that of a solitary sample of animal-parasite disease. For the sake of selecting fair examples, let us begin with the vegetable-parasite diseases by leaving out *favus*, which has been computed as occurring in this country a) in the proportion of 1 to every 10,000 cases of cutaneous disease, leaving out as well parasitic [illegible]

rarer,(a) and leaving out also the before-mentioned *tinea decalvans*, as being scarcely acknowledged in this country(a) as parasitic at all. We have now remaining to us *tinea tonsurans* (or *herpes tondens*) and *chloasma* (or *pityriasis versicolor*).

Let us then compare a case of tinea tonsurans and one of chloasma of the one hand, with a case of scabies and one of prurigo of the other. On both the one hand and the other we have to deal with contagious diseases, so that we are equally balanced as regards that. Again, while on the one hand we have an obstinate (tinea tonsurans) and a tractable (chloasma) disease, on the other also we have what, according to the general verdict, would be considered, the one (prurigo) an obstinate, and the other (scabies) a tractable complaint, so that we are fairly divided in that respect too. But then let us weigh the extent and severity of the one class of diseases against that of the other, as represented by the samples we have chosen. The itching of chloasma is but trivial; it is as a disfigurement rather than as a discomfort that chloasma is regarded by those who have experienced it, and there are many persons even of the wealthy class who carry it about with them with the greatest indifference, not thinking it worth consideration, so long as it confines itself to the chest, where it is fairly out of sight. Tinea tonsurans, although it usually causes some irritation, is not a source of any great distress, except when impatiently treated with "heroic" applications. It shaves off the hair in little circumscribed patches, it is true; but compare either it or cloasma with scabies or prurigo—diseases which spread rapidly over the whole of the body, and either cover it with sores (scabies) or subject it to slow torture (prurigo).

We have entered into this comparison of the vegetable with the animal parasite diseases because very much has of late been written and said of the former class, and an impression prevails that fungi are amongst the most important of the causes of cutaneous disease. On the other hand, animal parasites of the skin have, we think, been too much neglected, and we are desirous of proving that they are at least as deserving of attention as its fungi, and of showing that there are other departments of cutaneous pathology (besides the cryptogamic) which are well worthy of exploration.

MEMORANDUM ON THE

LOW FEVER THAT PREVAILED EPIDEMICALLY IN CAPETOWN AND ITS SUBURBS

DURING THE LAST SIX MONTHS OF 1867.

By HENRY A. EBDEN, M.D.,
President of the Medical Board, Capetown.

At the end of June, 1867, some suspicious cases of low fever among the pauper Dispensary patients presented themselves, with many more cases in the back slums, dirty lanes, and hovels of the town. By early in August the mischief had spread very freely, both in the town and its suburbs of Roudebosch, Claremont, and Salt River. There were, by September 1, as many as 600 cases of fever under all the Doctors' treatment in the town at one time. Prostration set in rapidly, and head-symptoms were common; but the rate of mortality was low—not more than 6 per cent. among the cases treated in the town, and 15 per cent. of those in the Hospital wards. Three of the Physicians of the town called the fever "malarious," and pronounced it to have been "imported from, and to be analogous to, the fever that had prevailed so terribly at Mauritius;" but by far the majority called the disease simply "a typhoid-like fever, induced by want of water and good food, and dirt," and treated it with good soup, brandy, open windows, and free sponging of the skin.

Once the weekly deaths reached 90 in number, but 60 was the average weekly mortality for two months. It is computed that in the last six months not less than 1500 persons died in Capetown, which has a population of 30,000 people. Now, allowing that the annual death-rate is about 2½ per cent., the deduction of 400 deaths for the six months will leave 1100 persons to have fallen by this fever, one-half being Mohammedan Malays or those quite as neglectful of cleanliness and ventilation.

At the Hospital the rate of mortality, even inclusive of all the "articulo-mortis" admissions, was but 15 per cent. The Capetown garrison of 1900 lost but two cases by fever. The convict barrack, with its 900 occupants, had not one case

of fever of any kind within its precincts. At Robben Island, with its 600 people, principally lepers, lunatics, and chronic sick, there were but two mild cases of fever. At Roudebosch, four miles south of Capetown, 130 cases were treated entirely without quinine, and there were but four deaths = 3 per cent. At Wynberg, Claremont, and Deep River, the deaths were twenty-four in 300 cases treated. Some cases of pure "typhus" have been reported, but nine of the Doctors have not seen a single case of that grave disease. Two of our Physicians (Drs. Brown and Graf) fell at their work, and Dr. Landsberg all but died of fever. A very few well-fed people succumbed to this epidemic, but its ravages have all but exclusively been confined to the ill-fed, the dirty, and the badly housed.

In some of the cases there was the peculiar "iliac gurgling," and the rose rash, symptomatic of typhoid fever; while in some there were indications of early cerebral and spinal effusion. In a very few cases there occurred the dusky mulberry rash and the constipation that mark typhus gravior.

There have been no regular autopsies, so that we do not know that there has been any real disease of Peyer's glands or any other abdominal organs, or even any absolute cerebral or spinal disorganisation. In some of the worst cases bedsores have been very troublesome; in others, the insomnia and delirium have been very intractable symptoms. In a very great number of cases there was no palpable remission whatever, hardly in any was there any clear intermission, and in very few any distinct periodic recurrence; while no doses of quinine, however large, arrested this fever's progress, a large number recovered thoroughly without any quinine at all; so that under these conditions this fever's malarious origin is somewhat questionable, contrary to the anticipations of those uninitiated in the course and progress of fevers. But, as was expected by those who have had experience in the matter, the warmer and drier temperature of Christmas-time was followed by a diminution of the epidemic. The Medical men who have seen the low fevers common in our country-places, such as Genadendal, Robertson, Swellendam, and Utenhage, at once recognised their identity of character with the epidemic that has prevailed in Capetown for the last six months, seeing before them analogous causes to those that induce the mischief in the country on even isolated farms—viz., accumulated dirt, inefficient water-supply, bad ventilation, and putrid exhalations from animal and vegetable refuse.

In the treatment, pure air and cleanliness did very great things. Good food and stimuli were largely and generally given, and that at the earliest stages. Active emetics and purgatives were rarely called for. Ammonia, chlorine, ether, and valerian in bark were very freely given. Iron and the mineral acids proved very valuable. Thirty-grain doses of bromide of potassium lulled to sleep where opium and other narcotics failed to do so. Diarrhœa was not very serious, nor was hepatic or splenic complication at all common. Blisters to the forehead, vertex, and nape of neck, for pain and stupor, have been freely and most usefully employed.

If to the 1100 that have perhaps died in Capetown of fever we add, at the very outside, 100 more for those who have died at Wynberg, at Deep River, on the Flats, and in Simon's Town, we shall have a total of 1200 as the deaths in the six months in the whole Cape division, with its population of at least 48,000 people, being a rate of 2·50 per cent., as the mortality in six months—a rate that must be deemed a low one when we bear in mind the anxiety and alarm that have for months filled the public mind about this fever. Many of the fever patients suffered greatly from rheumatic-like pains about the neck, back, and shoulders, and even about the loins and hips. Some had great pain and tenderness over the whole abdomen. A few had sudden attacks of epistaxis and even hematemesis. In some there was apparent palsy of "the pneumogastric," early inducing lung congestion and difficult deglutition. Many cases with a very rapid and wavering pulse ultimately recovered thoroughly. In a few there were convulsions and tetanic spasms, followed by a fixed and stiff condition of limbs.

Some persons have pronounced this fever "contagious," but this opinion is hardly borne out by the facts of the case; causes operating in certain localities to induce fever in A., B., and C., did so also in D., E., and F., who were denizens of the same spot, and fitted by the same diet and constitutional depression to take fever, but hosts of nurses and visitors to the sick have entirely escaped. Two Physicians and one Hospital matron died, and one Physician and one steward were very ill; but twenty-three Physicians, many clergymen, and very many Hospital and other nurses worked hard in the care of the sick for six months without suffering at all seriously in frame.

Capetown and all South Africa generally enjoy so salubrious a climate, despite all our hygienic apathy, that this recent epidemic of low fever, involving in even our most populous county only a rate of mortality of less than 3 per cent. in six months, or say 6 per cent. per annum, has unduly frightened the public. The accounts, however, of the recent fever epidemics in England—viz., that of typhus at Bristol and Liverpool, and of typhoid at Guildford and in Yorkshire, Northamptonshire, and Essex—show how comparatively mild our troubles have been when contrasted with those of England, and prove how easily we could, by ordinary intelligence in hygiene, secure to ourselves nearly perfect health.

January 5, 1868.

P.S. (January 20, 1868.)—There has been no increase in the fever, but the town burials are still 50 a week. Were Capetown as healthy as London, there should be but 12 in the week for our 30,000 people. But our mortality may be larger than we suspect, and there may be many coloured families, who neither accept nor seek our Doctors' aid, the members of which die largely in epidemics. By February 15 the mortality had fallen to 18 per week—equal to 3 per cent. per annum—and by March 6 it had dwindled down to 8 per week, or equal to, say, 2 per cent. per annum; but by March 24 it had risen again to 24, as tested by the burials.

March 27, 1868.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

ADENOID TUMOUR OF THE BREAST IN A WOMAN FORTY-SEVEN YEARS OF AGE.

(Under the care of Mr. BIRKETT.)

A WOMAN, aged 47, married, and the mother of several children, came into the Hospital with a tumour of the right breast, about the size of a large walnut. It was situated at the lower and outer margin of the breast, and was freely movable, being only attached by a slender pedicle; its surface was finely nodulated; its resistance firm, but not of stony hardness, and its period of growth was 15 months. The physical characters pointed to adenoid tumour, but, as Mr. Birkett observed, there were two elements of doubt in the case—viz., the age of the patient, and the fact that a slight dimpling of the skin was observable on pinching it up over the mass. A single incision was made over the tumour along the circumference of the breast, and very gentle traction was sufficient to enucleate the growth, which proved to be a typical specimen of lobular adenoid. No ligatures were required, and the edges of the wound were brought together by a few sutures. Mr. Birkett, in the course of some remarks, stated that he had only once before met with an adenoid tumour in a patient whose age exceeded 45 years, and that was in an unmarried woman aged 50. It was, he remarked, an infinitely rare occurrence to meet with an adenoid tumour in a married woman of the age of the patient.

CHRONIC DISEASE OF THE UPPER PART OF THE TIBIA — AMPUTATION — TORSION OF VESSELS INSTEAD OF LIGATURE.

(Under the care of Mr. BRYANT.)

The patient was a youth, aged 16 years, of strumous aspect, who had been operated upon successfully a year ago for disease of the humerus; excision had been practised, and the lad recovered, but before he left the Hospital disease reappeared in other parts. The upper part of the tibia was now evidently much diseased, extensive sinuses running in various directions, but not apparently implicating the knee-joint. The patient having been placed under chloroform, Mr. Bryant made a careful exploration of the diseased bone, and decided that no minor operation was admissible. He therefore amputated the thigh immediately above the knee-joint, employing antero-posterior flaps, the former of which he made by dissection, the latter by transfixion. The bone was remarkably soft, the saw passing through almost immediately.

Mr. Bryant then proceeded to employ torsion, in the place of ligature, for the vessels. The case was an excellent one for displaying the advantages and disadvantages of this method of arresting hæmorrhage. The tissues were much condensed and thickened by chronic inflammatory action, and a little difficulty was experienced in drawing out some of the arteries sufficiently to enable the operator to twist them satisfactorily. The necessity of isolating the vessel was well shown by the failure of the process in arresting the flow of blood when this was not done with sufficient care. It undoubtedly requires some skill and no little practice and patience to become a good torsionist. In consequence of some persistent hæmorrhage from the femoral vein, this was twisted three times, which was amply sufficient to arrest the flow of blood. The flaps were then brought closely into apposition by several carefully applied sutures.

BIRMINGHAM GENERAL HOSPITAL.

NERVOUS SYMPTOMS WITH SYPHILIS.

(Under the care of Dr JAMES RUSSELL.)

Syphilis—First Left, then Right Hemiplegia, following an Epileptiform Attack—Unexpected Improvement from advanced Disease—Recovery of Arms: Legs remained Paralysed.

James H., aged 27, single, a dissipated man, had syphilis (sores) first seven years ago; again two years since; never took mercury.

Had enjoyed good health till six months ago, excepting that he had had some headache; about that time he was found one morning with his mouth drawn to the left side, and his left limbs paralysed; he lost the power of articulating for a week, though he was perfectly alive to signs. He seems not to have entirely lost this paralysis. Three months afterwards he had a second attack, apparently of unconsciousness only; he did not speak for three days; but I cannot learn that there was any addition to the paralysis. The attack left him childish and delirious, and he had to be watched constantly for a month or more.

Again, a month ago (five months from the beginning of his illness), he had a severe epileptic fit, with convulsion of the right side, after which the right side remained paralysed, and for two days he passed urine unconsciously; his urine was stated to have "smelt as now" for two or three months.

He was admitted December 1. He lay in a torpid condition, not talking unless addressed, when his replies were ready and pertinent; he seemed to notice nothing, yet his face was not unintelligent, and there was no deformity of his features. He sometimes tried to get out of bed, but was easily restrained. Articulation was a little impaired; tongue was protruded direct. There was general and advanced atrophy of the muscles; the right grasp was more feeble than the left, and the right chest expanded less freely than the left. The right lower extremity was paralysed to a much greater extent than the arm; it could scarcely be raised from the bed. The left was moved freely, but he was quite unable to support himself with either: they were very sensitive to tickling. Cutaneous sensibility entire. Temperature of right axilla, 99°; of left 98°.

Sight good. Movement of globes perfect. Palate symmetrical. Cheeks quite sensitive.

Nothing could be more utterly unpromising than the appearance of the patient. His urine was passed involuntarily, was strongly ammoniacal, and deposited a large quantity of phosphates; it was free from albumen and from sugar.

Dec. 5.—Ordered, Pot. iodidi gr. v., acidi nit. dil. ♏x. ter die.

7th.—Continue. Pil. hydrarg. gr. iij. nocte maneque.

The patient did not manifest any sign of amendment; on the contrary, on the 16th the fæces had been passed involuntarily for four days. The mercury was now omitted, and one-sixteenth of a grain of strychnine was ordered to be taken three times in the day. On the 19th, however, I was struck with a marked improvement in the patient's appearance, visible at first sight. He was alert, and had passed both stools and urine voluntarily for two days; his urine, moreover, did not deposit any phosphates; and he was stronger on his legs.

Ordered to resume the blue pill twice in the day.

On the 21st the change in his aspect was remarkable; he could raise himself on his feet, and could grasp firmly with the right hand; and on the 26th got up to the night chair without help. On the 31st the urine was acid.

The amendment was fully maintained, but though he had regained the use of his arms by the beginning of February, he could not walk without support, and his case thenceforward assumed the character of ordinary paraplegia, the right limb being the weaker of the two. On leaving the Hospital on June 16 he was just able to raise his feet from the ground.

The treatment subsequent to the date mentioned above consisted of small doses of calomel to slight ptyalism, tonics, cod-liver oil, and subsequently bichloride of mercury.

Syphilis—Repeated Epileptic Fits, probably affecting the Right Side mainly, followed by Hemiplegia and Protracted Dulness—Subsequent Recovery.

I am only able to give a few particulars of the following case, as the notes in my book are very meagre. A boatman, aged 48, had had syphilis, of which a nodal thickening of the right tibia with a cicatrix of an ulceration were the remains. On October 7 he had an attack of formication in the right lower extremity. On the 14th he was seized with numbness of his right side, followed by convulsion on that side and insensibility. He was brought into the Hospital deeply comatose. On the following morning he had another "fit," involving the right limbs, right side of the body, and face in clonic spasm. He then presented decided paralysis of the right upper and lower extremities, with impaired sensibility, but extreme sensitiveness to tickling of the feet, together with severe pain in the paralysed limbs. There was no paralysis of the face, and, though his intellect was dull, his power of expressing himself was entire. On the 19th power was restored to his limbs.

On October 20 he had six fits; he had numbness of the right side; he did not lose consciousness; the testimony to the right side of the body having been alone affected with spasm was contradictory.

The fits recurred occasionally, leaving him very stupid and weak on the right side for a day or two. He then sank into a state of complete dulness. He lay quite quiet, and when aroused had exactly the appearance of a person awaking from deep sleep; but when compelled to attend, his replies were clear and correct. He complained greatly of headache. During this time he emaciated rapidly.

He remained in this condition through November and part of December, apparently steadily declining. He then began to recover with singular rapidity: lost the pain in his head; recovered his ordinary mental activity; the fits ceased to recur; and at the end of two months longer he left the Hospital apparently well. Urine free from albumen and sugar.

His treatment consisted of iodide of potassium and bichloride of mercury—the latter raised to a dose of gr. $\frac{1}{4}$.

Syphilis—Paralysis of Tongue—Dysphagia—Explosive Cough, but Condition of Larynx not ascertained by Laryngoscope.

John C., age 33, single, admitted that he had had venereal disease, a sore on the penis, and a bubo, but it was utterly impracticable to obtain dates on account of the condition of his articulating power. After the beginning of his present illness a sore broke out on his forehead, which was open some time; a cicatrix, unadherent, remains. He took pills at that time, had his mouth sore, and had discharge of saliva.

The further particulars were obtained from his mother. His illness commenced three years and a half ago; he suddenly and entirely lost his speech in the course of twenty-four hours, and has never regained it. It was six or twelve months before he could even say anything at all; and at present "Yes," "No," "I know," "Nit" (for night), and a very few other words, constitute his vocabulary.

Twelve months before this occurrence, however, he had, for one day only, some enfeeblement of the left arm, with apparently some incoherence. This never returned.

On the day after he lost his speech the power of swallowing became impaired. But on the day following he had thirteen fits, of which the sole particulars obtainable were that the head was shaken and drawn to the right side. Consciousness seems to have been unaffected; and there is no evidence of spasm or paralysis. The fits never returned; and his intellect and memory have been entirely unaffected, as they are at the present time. He kept his bed for three months after the occurrence of these fits, apparently solely from weakness, in consequence of inability to take food. For the first six days he could not swallow anything, and afterwards it was long before he could take much food. At the present time deglutition is often difficult, he is a long time over his meals, and

frequently chokes. It was during this part of his illness that the sores spoken of above broke out on the forehead.

The description of his present state will make few additions to the account already given. Ordinary voluntary movements are perfect, but there is clumsiness in executing unaccustomed or complicated movements, as pursing mouth, saying "ah!" to test his palate, etc. He cannot write, but, so far as can be learnt, reads intelligently; power of articulating, however, is all but annihilated.

I have already spoken of deglutition. The palate is symmetrical, and seems to move equably. He has a good explosive cough, but does not make guttural sounds to order, possibly from clumsiness. We could not get a sight of the vocal cords. Labial movements are perfect, but the tongue is quite motionless in articulation, though it can be protruded and moved from side to side. It is not atrophied.

Movement of the eyeballs, sensibility of the face, taste and smell, perfect; pupils equal and normal; nutrition excellent. He soon passed from under observation quite unrelieved.

THE LONDON HOSPITAL.

CASE OF PALSIES OF CRANIAL NERVES—DIAGNOSIS OF SYPHILIS.

(Under the care of Dr. HUGHLINGS JACKSON.)

In the following case, very like the one we reported from Dr. Ramskill's practice, there was no direct evidence of syphilis, but, from the disorderly nature of the symptoms, Dr. Hughlings Jackson felt confident that the lesion was syphilitic:—

A man, 31 years of age, was admitted for complete paralysis of the right portio dura nerve, of two months' duration. The right fifth nerve was partially paralysed, for how long was unknown. There was ulceration of the right cornea, and the temporal and masseter muscles acted imperfectly on the same side. There was weakness of the right arm and leg, which had come on slowly for two or three months. This symptom had followed an illness which had kept him in bed fourteen weeks. He had then severe sickness and violent headache.

The ophthalmoscopic appearances were such as led to the suspicion of syphilis. The general fundus was hazy, the optic discs were ill defined, but the arteries seemed of good size, and the discs were of normal colour.

The patient was deaf of both ears; the right had been deaf twelve months, the left sixteen days. The membrana tympani on each side appeared to be normal, except for patches of a very dead white, which seemed inlaid in the membranes. There had been no pain in the ears, and no discharge.

Large doses of the iodide of potassium improved his hearing very much on the left side, but did no good for that of the right side. The weakness of the right limbs passed off. The palsy of the portio dura of the fifth, and the right deafness, were not affected at all.

Now the patient denied having ever had venereal disease, and there was no demonstrative evidence of its presence. Still the disorderly nature of the palsies is next to certain evidence that this was the real nature of the intracranial lesion. The length of time over which the symptoms were spread helps to negative malignant disease. The fact that the palsies of the fifth and seventh did not give way to specific treatment does not contradict the diagnosis. The iodide has little power over old effusions. The *recent* deafness of the left side gave way rapidly. The weakness of the right arm and leg on the side of the palsy of the facial and fifth calls to mind cases Dr. Brown-Séquard has described. Dr. John W. Ogle was the first in this country to call attention to Dr. Brown-Séquard's views on this matter. Dr. Brown-Séquard has shown that interference with the surface of the crus cerebelli—in Dr. J. W. Ogle's patient's case it was an aneurism—causes palsy on the same side of the body. It may be that in the case above related the diseased mass entangling the fifth nerve was pressing on the crus cerebelli; but syphilis is so erratic that it would be in a case of this kind unsafe to diagnose the seat of the lesion causing the hemiplegia. Dr. Hughlings Jackson says that the post-mortem examinations he has had confirm the remark he has heard Dr. Brown-Séquard make, that disorderly symptoms are very characteristic or suspicious of syphilis.

CASE OF CONGENITAL SYPHILIS—CONVULSIVE SEIZURES—DEATH FROM TYPHOID FEVER—AUTOPSY.

(Under the care of Dr. HUGHLINGS JACKSON.)

We saw this week an autopsy on a girl about 14 years of age, who was the daughter of a man who died with syphilitic disease of the brain. She had the kind of dental malformation which Mr. Hutchinson has described; she suffered very much from fits for several years. The cause of her death was typhoid fever, but beyond the appearances left by this acute disease, there were no other morbid changes, except perhaps undue firmness of the encephalic mass, and strikingly of the olivary bodies. It is of some interest to note that no trace of tubercle was found in any organ.

This is the only autopsy on a patient past the age of infancy the subject of congenital syphilis Dr. Hughlings Jackson has seen.

CONVULSIONS BEGINNING UNILATERALLY, ATTENDED BY DOUBLE OPTIC NEURITIS, FROM SYPHILIS.

(Cases under the care of Dr. HUGHLINGS JACKSON.)

We saw last week an autopsy on a woman whose life history has been partly recorded in the fourth volume of the Reports of this Hospital. The case was one of convulsions beginning unilaterally, followed by hemiplegia and double optic neuritis. A similar case is recorded in these pages for May 16, and it was there stated that the series of symptoms mentioned, although not characteristic, are very suspicious of syphilis. In the case recorded on May 16 there is no definite evidence of syphilis, and therefore it is still merely suspicious, but warrants treatment by iodide of potassium.

We saw another case, strangely like those above mentioned, in the Hospital for the Epileptic and Paralysed, and in which for some time syphilis could be only suspected. Recently, however, a node has appeared on the right side of the head, and this makes the diagnosis pretty safe. By the way, the node appeared whilst the patient was taking ten grains of the iodide three times a day.

We saw another young patient who had the same symptoms. In her case there was no direct evidence of syphilis, but she had been—she volunteered the statement—a prostitute. In this case and the last the evidence of optic neuritis was supplied by the ophthalmoscope. The patients' sight seemed to be good.

There is now in the London Hospital a man who has the same symptoms, dating several years back, and unmistakable evidence of syphilis.

In the case of the woman mentioned in the first sentence of these remarks, the diagnosis was readily made when she first came under care, as there were cranial and tibial nodes. A very large syphilitic nodule was found in the right hemisphere, and a smaller one in the left. In this case, unlike most other cases Dr. Hughlings Jackson has examined post mortem, there was no disease of the larger cerebral arteries beyond a very small patch on one vessel.

THE MIDWIFERY PROFESSORSHIP AT GLASGOW.—The following memorial, signed by the resident officers of the Infirmary and eighty students, has been forwarded to the Right Hon. Gathorne Hardy, M.P., Secretary of State for the Home Department:—"We, the undersigned Resident Medical Officers, dressers, and students of the Glasgow Royal Infirmary, understanding that William Leishman, Esq., M.D., is a candidate for the Chair of Midwifery in Glasgow University, desire to bear testimony to his fitness for that office. Having had the pleasure of studying clinically under Dr. Leishman, both in the outdoor practice of the University Lying-in Hospital and in the wards of this Infirmary, we can strongly testify to the admirable qualities he possesses as a most able and successful teacher, to his power of clearly and exhaustively communicating the results of Medical science on any subject he has to do with, and to the interest he infuses into the students in any matter under observation. All these facts, we consider, recommend him in an eminent degree as a teacher, while the attention he has directed to the obstetric branch of the Profession renders him especially fitted for the Chair of Midwifery." We are also informed that Dr. Paterson is a candidate for the vacant chair.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, June 1, 1868, W. Pole, Esq., F.R.S., in the chair, Mrs. Alfred Morrison and Rev. J. George Wrench were elected members of the Royal Institution. The special thanks of the members were returned to Sir Henry Holland, Bart., the President, for his tenth annual donation of £40 to the Fund for the Promotion of Experimental Researches.

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Medical Times and Gazette.

SATURDAY, JUNE 6, 1868.

MEDICAL POLITICS.

There is little fear that the Medical Council, when it meets three weeks hence, will languish for want of subjects of discussion. The Pharmacopœia may indeed be considered as settled for a time; still fresh appendices must be in constant preparation, and the committee must consider themselves and their book to stand in the same relation to English pharmacy as the French Academy and its dictionary do to the French language—that is, they ought to adopt and incorporate every remedy and preparation which from time to time obtains currency amongst Practitioners.

Under the term Medical Politics, in a broad sense, are comprised three things. First, the relation of individual members of the Profession to the public, in their capacity of Medical attendants on the sick, and it must never be forgotten that this is the main cause of the existence of the Profession, and the source of its influence. In proportion as we are respected by private persons for our skill in the daily work of our lives, may we hope to gain influence on the community as a mass. Secondly, there is the relation of Medicine to the community—State Medicine, as it is well called, a complete and masterly summary of which, in the form of a memorandum by Mr. Rumsey, was presented by a deputation last week to her Majesty's Ministers. Thirdly, there is the internal organisation of the Profession—the machinery by which we make our students fit to take on themselves the responsibilities of practice, private or public—the control of curricula, schools, and examinations—all the means, in fact, on the due use of which we found our claim for such privileges as legally qualified Practitioners possess over the unqualified, and assert our claim also to extend the sphere of our practice from the family to the community.

Now it is quite obvious that when we propose to organise and carry on a new kind of administration for the public, we ought to be able to exhibit our own organisation in good working order. Before asking for new powers we ought to give proof that we make the best use of what we have already. There are many possible changes which require the co-operation of the Legislature, such as the alleged defective constitution of the General Medical Council; but there are others which are quite within the power of the Profession, and especially the reform of the Medical curricula. Is it, or is it not, true that existing Regulations for students demand work, such as can only be done in 468 days, to be done in 379? The calculation is Mr. Rivington's,(a) and we don't see a flaw in it. Add together the lectures, dissections, Hospital practice, and clinical lectures theoretically exacted of the student during his first two winter and one summer session, and what is the result? The student who is set to do impossibilities is justified in irregularity. We are so sure that a better organisation of our teaching would produce a better article at less cost, that we urge the fullest discussion of the subject within and without the General Medical Council. Politics, like charity, should begin at home.

(a) Rivington, "On the Necessity for a Revision of the Medical Curriculum. By Walter Rivington, M.S." Pamphlet. pp. 29.

DR. PARKES'S SCHEME OF MEDICAL TUITION.

No one has a better right to be heard on the subject of Medical teaching than Dr. Parkes. No one has been more earnest than he has in exposing the failures and shortcomings of the system of Medical education at present adopted by our Medical schools and fostered by the examining boards. Dr. Parkes, moreover, has had the advantage of an unusually long and varied experience both as a teacher and an examiner, and this circumstance justly gives considerable weight to his opinions on the subject with which he deals in the pamphlet before us.(a)

This "scheme of Medical tuition" is evidently the result of much thought and observation, and it deserves, and no doubt it will receive, the respectful consideration of all who are interested in Medical education. With many parts of this scheme we are disposed cordially to agree; but there are, on the other hand, many opinions expressed in it which we can by no means adopt. We may perhaps be excused for saying that the whole tone of this pamphlet seems to us to be derived from the experience of the Netley Professor with unlimited resources and absolute authority, rather than from the experience of the London teacher with little or no authority and very scant resources. An artificialness of construction, and an almost mechanical precision, strike us as the most marked and the most objectionable characteristics of this scheme—a precision practicable and perhaps desirable in a military college, but, we are persuaded, impracticable and of doubtful good as regards our civil Medical schools.

But let us examine Dr. Parkes's principal propositions a little in detail, so that we may endeavour to justify the remarks we have just made. In the first place, he objects very strongly to the permission which the Medical Council afford the student to spend a year or eighteen months of the whole period allotted to Medical study in the surgery of a general Practitioner. He observes—"This permission surrenders the groundwork of our rules, and puts the pyramid on its apex. It is, for the most part, a mere waste of time, and occasionally is worse even than this. Our students have only a certain capital in time, and cannot afford to place it at such low interest."

This states the case well and fairly, and has our entire concurrence. But it must also be admitted that there is no adequate provision in our Medical schools, as at present organised, for teaching that *little* which is learned in the general Practitioner's surgery; and so long as we hold firmly by the opinion, as we are disposed to do, that a knowledge of practical pharmacy is *really* useful to the Medical Practitioner, we are forced to admit that the purely London-taught student is often placed at great disadvantage when compared with the man who has been in the surgery of a busy Practitioner, or, still better, has had the run of a country Hospital.

A short but good course of practical pharmacy, such as is recommended by Dr. Parkes, is a great desideratum in our Medical schools; but a *practical apprenticeship* should *follow* the school course. Then the apprentice will be of real use to his master.

The next point objected to in this scheme is the present division of the Medical year into a winter session of six months' and a summer session of only three months' duration.

(a) "A Scheme of Medical Tuition." By E. A. Parkes, M.D., F.R.S., etc., etc. London: John Churchill and Sons. 1868. Pp. 32.

It is considered that it would be preferable to have a winter session of five months, commencing, as at present, in October, and a summer session of four months, commencing April 1. There can be no doubt, that our summer session, extending, as it does in some schools, scarcely over more than ten weeks, is much too short a period to give anything like a sufficient course of instruction in *any* subject. Four months would be better. But we see no reason why there should necessarily be a month's vacation between the winter and summer sessions. Many students who are working for examinations never take it, and it unsettles and breaks in upon the year's work in a most unsatisfactory manner.

Ten days or a fortnight would be a sufficient vacation for all good purposes, remembering that the winter session is broken by a ten days' vacation at Christmas. The summer session might then commence in the middle of March and end in the middle of July, an arrangement which would have the advantage of making the Medical long vacation coincide more nearly than it does at present with that of the universities and the law courts.

And here we beg to enter our most vigorous protest against Dr. Parkes's suggestion that the first or primary examination of the Medical Board should be held in *August* of the second year. Those who know what it is to work for a practical examination in anatomy in the dog days will agree with us that it would be a monstrous cruelty to make the whole body of Medical students remain in London working for examinations in the generally insufferably hot month of August.

The examinations should be held at the end of the winter session, and we may say here that we regret to observe that Dr. Parkes has taken no notice of the recommendation which we have repeatedly urged in these pages, and which has also been strongly advocated by others—viz., that there should be an examination by the examining boards at the end of *each* year. The absence of an authoritative and compulsory examination at the end of the *first* year is the cause of incalculable mischief. We unhesitatingly assert that the institution of a thoroughly sound examination by the examining boards at the end of the first year of Medical study would do more than any other single thing that has been suggested to improve the tone of Medical teaching in London.

The Medical Council and the examining boards are responsible for the wasted first year of the idle and thoughtless students, which is so often the commencement of failure and misery,

Dr. Parkes would have all Medical teaching made more practical, and, in short, more *real;* he would have men taught by an organised system of laboratory instruction. The Chemistry should be *practical*, the Anatomy *practical*, the Physiology *practical*, and the Pathology *practical*, and there should be tutors and demonstrators, etc., to undertake and superintend this work. We agree entirely with these recommendations, but we could have wished that the author of this scheme had indicated rather more satisfactorily than he has done how all this is to be effected. He hints at "co-operation," and invokes the Medical Teachers' Association; but he cannot be ignorant of the fact that the two largest schools in London hold aloof from this Association, and the number of students at these two schools very nearly equals that of the students of all the other schools in London put together. With the existing organisation of our Medical schools, and with the present distribution of students, it would be absolutely impossible to carry out Dr. Parkes's plan in a general way. We are convinced that this method is a very expensive one, whatever its author may think to the contrary. Let him consider that at some of the small Medical schools the annual entry of students has been so low as seven. It will surely occur to him that, so long as these small schools exist, it will be impossible to carry out generally an efficient system of Medical teaching, simply for want of funds. Not long ago a professor at one of the smaller schools told us that he remembered one year when the teachers had to pay £30 apiece out of their own pockets over and above the fees derived from pupils to defray the expenses of teaching, and this with a method of teaching not one third so costly as that proposed by Dr. Parkes. Indeed, we think the estimation of the cost of this scheme of tuition the weakest part of the pamphlet. Teachers must be paid, and if they are to teach well they must be paid well. It is owing to this *under pay*, or *no pay*, that much of our present *bad* and imperfect teaching is due. Dr. Parkes observes, "Few men lecture for direct gain." This may, to a certain extent, be true, but Medical teaching would be much better than it is if this were less true. We wonder much that Dr. Parkes does not perceive that his scheme, if adopted, must put a stop to this nearly gratuitous teaching. That which costs nothing is rarely worth much. A lecturer now drives down to his Hospital two or three times a week, delivers an hour's discourse, and drives off again; and on the strength of this he puts after his other titles that he is "Professor of such and such a subject at such and such a Hospital." That is his *quid pro quo*. But if Dr. Parkes means anything he means to put an end to that kind of teaching, and we would put an end to it too; but we know very well that the only way this can be done is by greater centralisation of our Medical schools, so as to make the courses in all the schools sufficiently remunerative to command that large proportion of the time and attention of the teacher which the scheme we are criticising most certainly requires. But its author does not hint at anything of this kind, or to the fact that this necessity had been long ago pointed out in the pages of this journal.

We may perhaps be pardoned for indicating two or three inaccuracies which occur in this part of the pamphlet.

It is stated, in alluding to the expense of this plan, "A course of physics is added, but botany is *lessened* in amount." Botany is at present taught in a three months' summer course —one hour's lecture three times a week. Dr. Parkes's summer course consists of four months, and he says (p. 11), "Botany should be taught during this session—a lecture of one hour daily for three days in the week would be sufficient." He will see that the present course would thus be increased by twelve lectures, not "lessened." Again, he says, "The lectures on therapeutics would be *saved* in the course of Materia Medica." But we shall find that it is recommended (p. 11) that there should be a lecture on Materia Medica for one hour and a half daily for four months, in the place of four hours a week for three months, as at present given—that is to say, the course of Materia Medica in this scheme would take just ninety-six hours more, or about three times as much of the teacher's time as at present. There is surely no *saving* here. The author concludes:—"I do not think there would be any material increase of the aggregate cost." We cannot agree with this statement. Even "young Physicians and Surgeons" cannot be expected to work at courses of this kind for nothing, and it does seem a trifle irritating that a well-paid and therefore much-envied Government Professor should tell his unfortunate brother teachers in London, when propounding a scheme which shall treble their labours and not increase their fees by one fraction, that "*few men lecture for direct gain.*" Dr. Parkes's system, good as it is in the abstract in many points, lacks a practical basis. It is really a question of "ways and means," and this part of the subject is left by the pamphlet before us in a most unsatisfactory state.

There are certain other parts of this scheme upon which we should like to offer a few remarks.

It is suggested that chemistry and anatomy might be learnt thoroughly in the first five months of Medical studies. We do not think these two studies wed well together. Our own experience teaches us that two subjects so extensive as chemistry and anatomy cannot be learnt *simultaneously* in the

thorough manner which is desirable. We are quite certain they cannot be so learnt in the short period of five months. When Dr. Parkes states, "At the end of the first winter session I conceive any student should have a fair and accurate knowledge of chemistry and anatomy," we can only observe that he must have had experience of a far more industrious and clever race of students than it has ever been our good fortune to meet with; and yet we have known a great number of good hard-working men, but never one who could be said to have obtained a "fair and accurate knowledge of chemistry and anatomy" in five months.

For our own part we much prefer the system indicated by the London University in their order of examinations, in which a preliminary science course deals with the *general* scientific subjects of Medical education before the purely *technical* part is entered upon. The first year of the Medical student's work should be devoted to such general subjects as chemistry, botany, physics, and zoology or comparative anatomy. The last of these subjects Dr. Parkes does not think worthy a place in his scheme. After this preliminary year, the next two winter sessions should be devoted almost exclusively to the study of anatomy and physiology, two studies which go well together and for the thorough comprehension of which two winter sessions will not be too much.

As to the best method of teaching Materia Medica, our experience differs entirely from that of Dr. Parkes. He observes (p. 11), "I have had some experience in this matter, and I believe that if every student has the drugs placed in his hand, is made to observe them carefully so as to recognise them at once, and is then obliged to read out of his text-book their origin, place of supply, chief preparations, doses, etc., the whole of this usually dry subject could be even agreeably (!) learnt in four months by a daily lecture of one hour and a half. All therapeutical discussion should be avoided." We have found, on the contrary, that the only way to give interest to the teaching of Materia Medica is to constantly associate the physiological and therapeutical action of the drugs with their history and description. We have proved it to be utterly impossible to fix men's attention by the abstract process indicated by Dr. Parkes, and we are convinced that an hour and a half's daily lecture of this kind would be found extremely fatiguing. In the French Faculty, Materia Medica is divorced entirely from therapeutics in the manner here recommended, and there is no class in the entire Faculty so badly attended and so unpopular, although the lectures themselves are extremely good.

This is an instance of the mechanical and unnatural method which this scheme presents in many of its parts. When a drug is placed in the hands of a student, his first inquiry is, "What is its action? what is it used for?" If we answer this question fully, we shall have interested the student in the drug in question, and we may then hope to obtain his attention to other details concerning it. "Curiosity," writes the late Archbishop Whately, "is as much the parent of attention as attention is of memory; therefore the first business of a teacher—first not only in point of time, but of importance—should be to excite not merely a general curiosity on the subject of study, but a particular curiosity on particular points in that subject." But in Dr. Parkes's method curiosity is to be quelled. "All therapeutical discussion should be avoided."

We think our author wrong also in his method of approaching the study of physiology, in making the subject of histology precede an account of the simpler nutritive functions. Histology is much the more difficult study and least attractive to the beginner, whereas a simple and general account of the functions of digestion, circulation, and respiration can be easily made intelligible and interesting to all, and gives additional interest to the study of minute structure, which should follow, and not precede, such an exposition. Or, indeed, what perhaps is better still, in all our studies we should combine simultaneously the theoretical and the practical. In chemistry, for example, formal lectures on the elementary gases should be followed or accompanied by demonstrations and practice in the laboratory in manipulating and experimenting with these bodies. So, in physiology, a lecture on the function of digestion should be followed or accompanied by a microscopic examination in the physiological laboratory of the organs concerned in this process. This, to our mind, is the most *natural*, and therefore the best, method of teaching. For the same reasons we object to the dry and abstract manner in which it is recommended that the study of Medicine and Surgery should be begun. "The first thing should be to give him a good foundation by means of short elementary courses of perhaps six weeks' duration, in which he should be told the definition of Medical and Surgical terms, the names of the more common diseases, their symptoms, and their nature, stated as briefly and simply as possible. *He should not be permitted to enter the Hospital* until he had gone through them." (P. 16.) The same artificial method is suggested in the study of skin diseases (p. 17). This seems to us to be the old Eton grammar system applied to the study of Medicine. No one ever *naturally* learnt a subject in the manner here described. It has too much constraint and too little freedom. We have been endeavouring for some time past to knock off the fetters that bind Medical teachers and Medical students. Dr. Parkes would rivet them closer. "Instead of less regulation, I would have more," says he, "only it should be effective." But we ask, "How can effective regulations be applied to all the Medical schools?" The regulations which are at present enforced simply have the effect of annihilating good teaching and paralysing the efforts of earnest teachers. Dr. Parkes would coerce the schools—he would fix a certain rigid method on them. Would it not be better and easier to coerce the examining boards? Would not good results be thus more certainly obtained? Examining boards must of necessity regulate Medical teaching, and nothing can insure sound teaching but severe and practical examinations. To *enforce* attendance on set lectures or set courses is to take the wrong sow by the ear. As to lectures, Mr. Lowe very truly observed in his speech at St. Mary's Hospital, "If the lectures are good, there will be no need of *enforcing* attendance on them; if they are bad, why make men waste their time in attending them?"

Examinations may be so framed and so frequent that they may necessitate a particular plan and course of study. Teaching then would be adapted to the examinations, and there would be no need of *enforcing* such a method of study as would alone insure success at the examining boards: it would be adopted *voluntarily* and necessarily.

Professor Seeley, in his essay on a liberal education, expresses the same fact in speaking of school teaching generally: "In the leading schools it does not rest simply with the head master to decide what the higher forms shall study. The College authorities at Oxford and Cambridge take this question very much out of his hands by their examinations for entrance exhibitions, and the University authorities by their degree examinations." The teachers are wholly under the influence of the examining boards, and the examining boards only can "make" and "compel" the adoption of any particular scheme or course of study.

There are many other minor points in this scheme to which we take exception.

We think that *six* hours of practical laboratory work *daily*, in addition to the private reading and note-making that it would necessitate, about twice as much as ordinary men can stand. We object to men in their fourth year having four or five set courses of lectures to attend. Their fittest work at that period of their studies is clinical, and clinical only. We think, too, that the *senior* students deserve a better fate than condemnation to the out-patient room—at any rate, the Medical

out-patient room, where nineteen-twentieths of the cases fall under the heads of chronic catarrh or dyspepsia.

We object to the suggestion of "authorised text-books," and especially to such text-books being prepared by the Medical Council!

Although we are thus compelled to differ from Dr. Parkes in many points, there are many others in which we entirely agree with him, as, for example, his suggestions for improved clinical teaching (pp. 18 and 19), and for teaching morbid anatomy; that clinical lectures should be shorter and more demonstrative; that greater prominence should be given to teaching therapeutics. To these recommendations we would add a desire to see Medical and Surgical pathology better taught. We think pathology might form almost exclusively the subject of the set courses in Medicine and Surgery, while symptoms and treatment might be dealt with in clinical lectures, which should be more frequent and systematic.

In conclusion, we feel greatly indebted to Dr. Parkes for the pains he has taken in preparing and putting before the Profession this "Scheme of Medical Tuition." We have not hesitated to point out certain important points therein with regard to which our opinions are at variance with his; but, at the same time, we readily admit that he indicates many defects in our present system of Medical teaching, and suggests improvements which we hope soon to see adopted. But, as a whole, we regard his method as too artificial, and, in the present organisation of our Medical schools, entirely impracticable. There must be many changes effected in the constitution of these institutions, and many changes in the requirements of the examining bodies, before any approach to such a scheme as this can be put into operation. We would respectfully point out to Dr. Parkes—borrowing his own metaphor—that this is the *base* of the pyramid, and that he has been working at its apex.

THE WEEK.

TOPICS OF THE DAY.

The Select Committee appointed by the House of Lords to consider and report on the Poor Relief Bill, have, by a majority of seven to one, affirmed the necessity for special Medical inspection of Workhouse Infirmaries. The Committee have struck out the clause which enabled the Poor-law Board, in case of any shortcomings on the part of the Visiting Committee of a Union, to appoint a special visitor for a year, whose salary was to be paid by the Union. But they report that in their opinion it is desirable, "in order to secure greater efficiency in the administration of the Poor-law, that the number of inspectors should be increased, and that a certain number of such inspectors should be specially qualified by Medical knowledge to report as to the relief of the sick poor. This last clause is said to have been opposed by the President of the Poor-law Board, who, however, failed to bring over to his opinion his seven colleagues. The principle of special Medical inspection is undoubtedly in itself excellent, and we believe the Profession would gladly see it carried into practice. The chances, however, of carrying a Bill embodying the recommendation of the Select Committee in the present Parliament seem problematical.

The question whether imbecility and loss of mental power, if unaccompanied by delusion, may amount to unsoundness of mind, constituting lunacy within the statute 8th and 9th of Victoria, cap. 100 sec. 90, which forbids the reception of lunatics into unlicensed houses, has been decided by the judges in the affirmative. The question was reserved in the trial of Shaw, of Elstree, who was recently fined £100 and sentenced to six months' imprisonment for receiving into his house and maltreating by neglect a Mr. Clode. Mr. Clode had given way to intemperance, had had three paralytic attacks, had lost his memory, and expressed himself quite contented to live in the state of indescribable filth in which he was found. The Court concluded that a person who willingly lived in such a condition could not be of sound mind, and that, as Shaw must have been aware of the fact, the conviction must be affirmed. This decision proves that lunacy and unsoundness of mind are matters of degree, and in law bear a wide interpretation. The law certainly does not mean that every aged person who has sunk into a condition of senile decay without exhibiting delusions is a lunatic in the ordinary acceptation of the word, although it is clear from this judgment that no Medical man would be justified in receiving such a patient into his house without a licence. We say this without reference to the special character of this case, which the evidence given at the trial proved to be of the worst description.

During the past week Dr. Richardson has continued his researches on the properties and action of the new anæsthetic agent, to which we drew attention in our last number—methylic ether. By the courtesy of Dr. Richardson we have again been present at his experiments, which were made with the intention of determining the phenomena produced by methylic ether when given in such quantity as to produce death. The animal selected for the observation was a guinea-pig, which was placed in a chamber containing 500 cubic inches of air, into which an ounce of solution of methylic ether in ether was introduced. Perfect anæsthetic sleep was produced in between three and four minutes. At the end of nine minutes respiratory movements ceased, but the heart continued to beat vigorously. The animal was then removed from the chamber, and after about three minutes in atmospheric air had fairly recovered. The same animal was again subjected to a full quantity of methylic ether vapour, at first in a closed chamber, and afterwards he was made to breathe it from an inhaler. Again excellent anæsthesia was produced, but death was long before it took place. Altogether the animal was twenty-nine minutes breathing a full quantity of the vapour before it succumbed. Respiratory movements ceased four minutes before the heart's action stopped. The heart could be felt through the parietes of the chest, and for three and a half minutes after respiration had ceased its action was powerful and regular. The body was opened immediately after death. The muscles were of a natural colour; the lungs were natural, full of air, and not in the least congested. On the admission of air into the thoracic cavity before the pericardium was opened, the left, and afterwards the right, auricle were seen to start into action. The pulmonary veins, and both sides of the heart, auricles and ventricles, were distended with dark fluid blood. Blood drawn from one of the veins of the neck took three and a half minutes to coagulate, its upper surface coagulating first. In its effect on the circulation, Dr. Richardson finds that methylic ether resembles ether rather than chloroform. As with ether and bichloride of methylene, when death is produced, blood is found in both sides of the heart; chloroform, on the other hand, leaves the left heart empty. Methylic ether differs, however, from bichloride of methylene in producing a dark colour of the blood in the left heart, whereas, after death from bichoride of methylene, the blood in the left auricle and ventricle is red. Dr. Richardson believes it an established law that all chlorides redden the blood and quicken coagulation, whereas ethers darken the blood and protract coagulation. The experiment we have recounted seems to show the extreme safety of this agent. The animal, althongh completely under the anæsthetic influence, continued to live for the best part of half an hour, and could be easily restored after respiratory movement had ceased. The objections to its use in practice are—first, that it volatilises rapidly from its solution in ether; and, secondly, that its odour, although bearable, is not so pleasant as that of bichloride of methylene, ether, or chloroform.

The storm of Friday was the direct or indirect cause of several deaths in London and its neighbourhood. Of the two

men struck by lightning at Ewell, one was taken up dead, and an inquest has been held on his body. The Coroner for East Surrey, Mr. Carter, it seems, did not think it necessary that any Medical evidence should be taken as to the cause or mode of death, and no post-mortem examination was made. A Medical Coroner would probably have held a different opinion, and we think Mr. Carter's decision is much to be regretted, as there are many points with regard to death from lightning on which the Profession still require certain information, and no case should be permitted to pass uninvestigated. The lightning seems to have struck the man in the neck, and to have passed through the left breast, where there was a wound in which the finger could be placed. The other person who was struck, we are informed, is still living. He was struck behind the right ear, the "electric fluid" ran down the right side, fusing his watch, marking the thigh very much, and blistering the skin. We hear that he has not yet spoken, but has lately appeared to make attempts to speak. The right side is paralysed, and both eyes are turned persistently to the left, and have been so since the accident. An inquest has been held on a Mr. Kelly, a bookseller, of Poplar, who died of apoplexy, apparently the result of the fright produced by the storm. We have also heard of a similar death in Bloomsbury. As measured by Pastorelli's storm-rain gauge, the rate of rainfall at 1 h. 58 m. p.m. was 6 inches per hour, or 144 inches per day. According to Mr. G. J. Symons, no measurement approaching this has been noted since December 13, 1856, when 0·50 inches fell in 7½ minutes, being at the rate of four inches per hour for that period.

The Lord Chancellor has deprived Mr. Charles Henry Holgate, coroner for the Parts of Lindsey, in Lincolnshire, of his office on the suit of several justices of the peace and freeholders. One main charge against Mr. Holgate was that he had refused to hold inquests and to admit Medical evidence, as in the case of an illegitimate child who had been starved by its mother and her husband, who were afterwards convicted on the results of a post-mortem examination, and sentenced to penal servitude at the Lincoln assizes. Other counts charged him with taking receipts for fees he had not paid and obtaining repayment from the county, and with indecent behaviour, as, for instance, smoking a short pipe when holding inquests. The Lord Chancellor considered the charges more or less proved. Mr. Holgate is an attorney, and has been coroner for more than thirty years.

Small-pox has broken out at Sheffield, where it appears vaccination has been considerably neglected. At a late meeting of the Board of Guardians, Mr. W. Skinner, of Broad-lane, sent in a list of nineteen cases which he had attended; seventeen of the patients had not been vaccinated, and the two cases in which vaccination had been performed were stated to be "very slight." Of the nineteen, eight were under six years of age, one had died, and the recovery of four was doubtful. Under these sufficiently grave circumstances the Board spent their time in listening to one Fox, "a Medical botanist," who informed them that small-pox was a blessing; it made those who had it more robust and healthy; that vaccination was the curse of the world, and that he wished he had thousands of cases to treat, as he could cure it with God's remedies—sarecumacca-root, saffron, and vervain. Mr. Fox, it seems, is a member of the present Board of Guardians of Sheffield, who, a few weeks ago, resolved not to permit their officers to summon for non-vaccination.

In the case of *Routledge v. Low*, the House of Lords have decided that an alien, who publishes a book in London, and at the time is resident in a British colony or possession, is yet entitled to the protection of the English law as to copyright. An American authoress had assigned the copyright of a work to Messrs. Sampson Low and Co., and had then proceeded to Montreal, in Canada. During her sojourn there Messrs. Low published in London her book. The House of Lords decided that the copyright was valid. The Lord Chancellor stated in addition that he believed that the Act 5 and 6 Victoria, cap. 45, gave a copyright to any person, whether alien or British subject, and whether resident in England or elsewhere, if the work were published in London. Lord Westbury concurred. Lords Cranworth and Chelmsford agreed in the judgment, but doubted whether the Act applied to foreigners residing abroad.

The Committee for returning Mr. Gladstone as Chancellor of the University of Edinburgh have published a letter from that gentleman, in which he repudiates the wish or intention to reduce the four Scottish Universities to the status of Colleges to be united under one national University, unless all these bodies willingly assent to the plan. The supporters of the Lord Justice-General are instituting an active canvass amongst the graduates.

Professor Roscoe's fifth lecture, delivered at Apothecaries' Hall, was on the very attractive but difficult subject of Solar Chemistry, which may be said to have been created by the spectroscope. Indeed, as he stated in an eloquent exordium, not merely the solar atmosphere, but even the constitution of the fixed stars, the nebulæ, and the wandering comets, has been revealed by the searching power of that instrument. Professor Roscoe first referred to the differences which exist between sunlight and the light given off by solid substances or by gaseous bodies. Fraunhöfer, in 1814, demonstrated that the solar spectrum was not continuous, but was intersected by numerous dark lines, known as Fraunhöfer's lines. Dark lines intersect not only the luminous rays visible through a glass prism, but also, as proved by the employment of a quartz prism, the chemically active rays. Fraunhöfer measured the distances between certain of these lines, and found them to be fixed. The same lines, as might be expected, were found to occur in moonlight and in planet light. Kirchoff, in 1861, published his wonderfully accurate measurements of these lines in the solar spectrum, the remarkable accuracy of which has since been proved by photographs obtained by Rutherford. Kirchoff was the first to demonstrate the coincidence in place of the dark solar lines with the bright lines of the metals, and it is upon this coincidence that our knowledge of solar chemistry is founded. The reason why these lines appear dark in the solar spectrum, whilst they are bright and coloured in the spectra of the metals, was then explained and illustrated by a number of experiments. Kirchoff proved that bodies have the power of absorbing the same kind of rays which they emit. Thus, the vapour of burning sodium absorbs the yellow light which sodium emits; and the same is true of other incandescent bodies. This was demonstrated by experiment in the case of both sodium and lithium. Hence it is, therefore, that the vapours of the burning metals in the solar atmosphere absorb the particular rays emitted by those metals, and allow only the dark absorption lines to appear in the solar spectrum. The 460 bright iron lines are thus exactly coincident with the same number of dark absorption lines in the sunlight. So also with a number of the other metals. The line known as D in the solar spectrum is coincident with the sodium line; the line C is a hydrogen line; the line small D is a magnesium line; the line E is an iron line, etc. Amongst the substances thus found to exist in the sun's atmosphere are hydrogen, sodium, calcium, barium, magnesium, iron, zinc, tin, manganese, and probably aluminium. That these absorption lines are not produced by any substances in our atmosphere is proved by the fact that they are not intensified at sunrise and sunset, when the light passes through a greater layer of the earth's atmosphere. All the lines in the solar spectrum have not yet been identified, and there are lines which are referable to absorption occurring in the atmosphere of the earth. The lecturer touched then slightly on Nasmyth's observation of palm-shaped bodies on the sun's surface, exhibiting on the screen a photograph of their ap-

pearance. He also produced some beautiful photographs of the last total eclipse, showing the processes of light, extending thirty thousand miles from the bright rim surrounding the dark shadow. He believes that many additions will be made to the current knowledge of the subject in August, when the next total eclipse occurs. Preparations on a considerable scale have already been made for its proper observation at various stations in India. The probable theory seems to be that the sun, the earth, and the planets are bodies gradually cooling down from a state of great heat. The process of cooling has gone further in the case of the earth than in that of the sun, further in the case of the moon than in that of the earth. The lecture drew as large an audience as ever, and the lecturer announced that his next and last lecture would be on Stellar Chemistry.

PROPOSED COTTAGE HOSPITAL AT VENTNOR.

Ventnor has so long enjoyed a reputation as a suitable residence for phthisical patients that we might have expected long before this to hear of the establishment of a Hospital there. But it has been reserved for some gentlemen who organised a dinner held at the Cannon-street Hotel on Wednesday last, to start the scheme, and to fix the principles on which it is to be worked. They begin by abjuring large and costly buildings, and substitute a group of cottages. They propose to take patients from all parts of the kingdom, and to make the patients contribute in some degree to their own sustenance in the Hospital. The promoters of the scheme have, no doubt, considered its financial aspects thoroughly, but the annual cost of a number of small buildings, as compared with a single large one, will of course claim their attention. On the other hand, benevolent persons may have their sympathies enlisted on behalf of a particular cottage which may have some association with their own neighbourhood or family in a greater degree than would be the case if they only shared with others an interest in a large establishment. The want of breathing-places to which town patients may be sent is one that is severely felt by Medical officers of Hospitals and Dispensaries, and much good might be done if the supporters of such institutions could bestir themselves and take a share in such a work as this. A single cottage, built and supported by the town institution, and placed under the care of the managers of the combined country Hospital, would be an economical and most valuable means of treatment. And the same town institution might have cottages at different places, as some of them now have beds at various sea-bathing infirmaries, for we are far from asserting that the climate of Ventnor is the best for all cases. The present scheme owes its origin in a great measure to Dr. A. H. Hassall, who was lately compelled by ill-health to reside in the neighbourhood of Ventnor, and derived much benefit from the climate. It is supported by the local landowners, among whom are the Bishop of Winchester, Lord Eversley, Sir Laurence Peel, Sir John Simeon, and others, as well as by several philanthropic gentlemen of the City of London, foremost among whom is Mr. Frederick H. Leaf. We wish the promoters of the undertaking all success.

LIEBIG AND HIS OPPONENTS.

When the brilliant speculations of Pasteur on the subject of fermentation and of Fick and Wislicenus on that of nutrition were published, the old supporters of Liebig's hypotheses expected that the "father of organic chemistry" would be roused to defend his doctrines, and when they found Liebig silent, they construed his reticence into an admission that his opinions were unfounded. How gratified they will be to know that the veteran has returned to the charge, and, in a lecture just delivered (May 10) before the Academy of Sciences of Bavaria, has analysed and rejected as unsound the theories of his adversaries! Assuredly Liebig's objections to Pasteur's method of experimentation, however little they afford a proof of his own doctrines, appeal to common sense against those of his opponent. One of Pasteur's most remarkable experiments on the subject of fermentation was that in which he proved (?) that the yeast fungus grows and increases in a mixture of tartrate of ammonia, sugar, and yeast ashes. To this experiment Liebig objects, that the principal constituent of yeast is a substance rich in sulphur, and since the experimental solution contained no sulphur, it was impossible that the yeast could have grown in it. In reply to Fick and Wislicenus, whose theory of nutrition has thrown such doubt on Liebig's, the President of the Bavarian Academy says that the experiments of these chemists rest on a series of misconceptions as to the nature of the organic processes involved in nutrition. "It is," he says, "just as impossible by the combustion of dried muscle to calculate its efficiency in the living body as it was by the combustion of a dried bee to estimate the work which it accomplishes in the flight of many hours, carrying the weight of its own body several miles."

HONOURS IN THE UNIVERSITY OF LONDON.

At an adjourned meeting of the Convocation of the University of London, at which we were sorry to see an unusually small attendance of Medical graduates, a very important question relating to the degrees of M.D. and M.S. was brought forward for discussion. It was proposed by Dr. Pye Smith, and seconded by Dr. Broadbent, that the Senate should be requested to consider the desirability of discontinuing the gold medals at the examinations for the degrees of M.D. and M.S. Dr. Smith stated that these were the only examinations at which competition was compulsory, and that a large number of graduates were prevented from going up for the highest degree because they objected to be obliged to compete; that he believed he was expressing the almost unanimous opinion of the Medical graduates, when he stated that these awards were looked upon with little favour, and that a greater number of candidates would present themselves were these medals to be discontinued. Dr. Broadbent expressed the same opinion, and stated, as a proof of the unsatisfactory nature of these prizes, that the sooner the candidate presented himself at the M.D. after taking his M.B., the greater was his chance of distinguishing himself. Mr. Bruce stated that he believed the Medical graduates were by no means unanimous upon this point; that the competition at the M.D. enabled a man, who had failed to obtain distinction at the M.B. in consequence of the multitude of subjects required, to show that he was really a proficient in the special branch of Professional study which he intended to take up; and that the fact mentioned by Dr. Broadbent merely proved that a man devoting a year's study to the science of Medicine or Surgery at a Hospital would be likely to do better at an examination than another spending three years in practice with all its attendant distraction and care. Dr. Maudsley could not agree entirely with the proposer of the motion, although he thought that some change might be desirable. For instance, he thought the medal might with advantage be awarded as a prize for the best thesis on some Professional subject, and that this might be considered as an addition to the pass examination. Several Arts graduates, amongst whom were Mr. Hutton, Mr. Shaen, and Mr. Nesbitt, took part in the discussion, and strongly deprecated any recommendation being sent to the Senate except as expressing the unanimous opinion of the Medical graduates, which evidently was not the case on the present occasion. It was clearly pointed out by one of the speakers that the tendency of the resolution would be to alter the character of the final examinations of the University, and would tend to lessen their value, and that the degrees would

be liable to degenerate into merely honorary additions to the Bachelor degree, as is the case at Oxford and Cambridge. The motion to pass to the next question was carried by a large majority.

FROM ABROAD.—THE PARIS FACULTY—AWARD OF PRIZES AND PRIZE QUESTIONS AT THE ACADÉMIE DES SCIENCES.

In relation to the unsuccessful attack made in the Senate on the Paris Faculty, and especially on M. Sée, whose words are proved to have been incorrectly reported by Cardinal Bonnechose, we may notice the letter addressed by Dean Wurtz to the Minister of Public Instruction. It is too long for reproduction, but we may quote a passage or two :—

"For some time past the Faculty has been the object of attacks which have given rise to great emotion in the world of science and amidst the general public. Protests have been entered against several of the Professors, and several courses of lectures have been incriminated. Some proposition accidentally stated during a lecture and incorrectly reported, a scientific definition wrongfully twisted into a dogmatic affirmation, a proposition maliciously invented and placed in the mouth of a Hospital Physician, a Medico-legal thesis on free will, to the author of which was granted his degree while blaming his doctrines—all these had been adroitly manipulated so as to represent Medical teaching impregnated with subversive ideas, and to denounce the Faculty as a school of materialism. . . . The Faculty has introduced into its teaching the exact methods of modern science, teaching physiology by experiments and Medicine by facts. In their lectures authorised masters exhibit the structure of organs and the regular or disturbed play of functions, concerning themselves solely with the material conditions of the phenomena. And this is the tendency which is sought to be condemned by stigmatising it as leading to materialism. It is desired that the State should affirm a doctrine the opposite to that which is now taught, and, in securing its triumph, impose on the Professors not only programmes, but convictions. The Faculty can never believe that this will be attempted. It is little moved by these attacks, but quietly pursues the course of its labours, keeping within its purely Medical track. It takes the part of no system of philosophy, and respects all worthy of respect beyond the pale of science. It dreads not liberty of teaching, but it demands with energy for its scientific courses liberty of doctrine, and for its members that primary right of all citizens, liberty of conscience."

While admitting in principle the position assumed by the Faculty, M. Dechambre, editor of the *Gazette Hebdomadaire*, proffers a few words of advice which certainly should not pass unheeded by that body :—

"The ultimate or philosophic consequences of the ideas which observation, experiment, and reasoning may furnish on the functions of the nervous system are of no utility for the teaching of physiology, and in suppressing them and confining attention to the study of the instrument there is no harm done to a course of lectures on Medicine. Then we must frankly avow that it is always with regret we see displayed before the young doctrines which, like those of positivism and especially materialism, logically lead to such grave deductions. All opinions on these points are to be respected when they are sincere; but, at least, they should not be the result of a simple impression, the mere superficial impress of the words of a teacher, but should issue forth ripened by long mental elaboration. There are in the world already but too many artificial convictions arising from accident or habit, and kept up by inconsiderateness, indolence, or the respect for opinion; and it is to be wished that the Professors of our Faculties should not deposit fellows to them in the minds of their auditors."

At the annual meeting of the Académie des Sciences an eloquent eulogium on Michael Faraday was delivered by one of his most respected personal friends, Professor Dumas. The following were the prizes adjudged in the departments of Medicine and Natural Science. 1. *The Montyon Prize in Experimental Physiology*, concerning which M. Claude Bernard was the reporter, was decreed to M. Cyon for his work on the "Reflex Action of the Sensitive Nerves of the Heart on the Motor Nerves of the Blood-vessels." A second prize was accorded to M. Baillet for his "Researches on the Generation of the Helminthia in the Domestic Animals;" and an honourable mention to M. Moura for his memoir on the "Mechanism of Deglutition." 2. For the *Montyon Statistical Prize*, honourable mentions were accorded to MM. Marmy and Quesnoy for their "Medical Topography and Statistics of the Department of the Rhine and City of Lyons;" to M. Vacher for his "Study of the Statistics and Mortality of Paris, London, Vienna, and New York;" to M. Bergeron for his "Study on the Geography and Prophyiaxis of *Teignes*;" to M. Blanchet for his "Statistics of the Blind and Deaf-dumb;" and to M. Beauvisage for his "Applications of Mortality Tables to Life Assurance." 3. For *the Prize in Medicine and Surgery*, M. C. Robin reporter, three prizes of 2500 fr. each were adjudged to M. Chauveau for his "Researches on Vaccine Virus," to M. Courty for his "Treatise on Diseases of the Uterus," and to M. Lancereaux for his "Treatise on Syphilis." Honourable mentions were accorded to M. Schultze, of Bonn, for four essays on the "Structure of the Retina," to MM. Hérard and Cornil for their "Treatise on Pulmonary Phthisis," and to M. Foissac for his "Influence of Climate on Man." M. Villemin also submitted his "Studies on Tuberculosis" to the Academy, and the committee to which it was referred regard it as a work of great importance; but they believe the recompense it merits should be deferred until the next *concours*, when the results of some of the experiments related will have been ascertained. M. Bergeron's essay on "Pancreatic Salivation in Mercurial Poisoning," which seeks to explain mercurial cachexia by changes in the pancreatic secretion, is likewise deferred, in order that its author may institute additional experiments suggested by the committee. "Honourable citations" are accorded to M. Magitot for his "Researches on the Changes in the Teeth and on the Saliva," to M. Bouchard for his essay on "Secondary Degenerations of the Spinal Cord," to MM. Prévost and Cottard for their memoir on "Cerebral Ramollissement," to MM. Estor and Saint-Pierre for their "Experiments on the Functions of the Spleen" and other essays, to M. Ordonnez for his essay on the "Development of Fibrillary and Fibrous Tissues," and to M. Commenge for his work on the "Treatment of Pertussis by Inhalations." 4. *The Bréant Prize*, M. Robin reporter, for the cure of cholera, has, as usual, met with no satisfactory response. However, the Academy has been able to award a recompense of 2500 fr. to M. Huette for his works on the transmission of the disease; and another of 1500 to M. Mesnet, for his investigations on cholera. 5. The *Jecker Chemical Prize*, M. Chevreul reporter, was decreed to M. Marcelin Berthelot. 6. The *Borbier Prize*, M. Robin reporter, was given to M. Huguier, for his work "On the Hysteritometer and on Uterine Catheterism." 7. The *Godard Prize*, M. Coste reporter, was accorded to M. Legros for his "Researches on the Erectile Tissue of the Generative Organs," and an honourable mention to M. Larcher for his essays on "Intra-uterine Polypi and Rupture of the Uterus."

The Academy has published a long list of the prize questions for 1868, but as the memoirs and works were to be sent in by June 1, there is no utility in transcribing it. For 1869, the subject of the prize of 5000 francs in Medicine and Surgery is to be "The Application of Electricity to Therapeutics." The apparatus must be indicated, and their mode of application and physiological effects described. Cases and facts hitherto published are to be collected and critically examined, and added to by new investigations of the results, determining the cases in which the agent should be had recourse to, and whether by means of the continuous or interrupted current. The essays must be in French, and sent in by June 1, 1869. The *Cuvier Prize*, a medal of 1500 francs, will be adjudged in 1869 to the author of the most remarkable work which has appeared during 1866-68, either upon the animal kingdom or geology. There will be also the *Bordin prizes*, medals of 3000

francs in value, adjudged in 1869, the one on the functions performed by stomata in leaves, and the other for the best monograph on the marine invertebrata. The essays or works for all these prizes to be sent in by June 1.

PARLIAMENTARY.—PHARMACY ACT AMENDMENT BILL—SCOTTISH UNIVERSITIES—THE MEDICAL PRACTITIONERS' (COLONIES) BILL.

In the House of Lords on Thursday, May 28,

The Sale of Poisons and Pharmacy Act Amendment Bill was read a second time.

In the House of Commons, the Committee on the Scotch Reform Bill postponed the consideration of the University clauses until Monday next.

In the House of Lords on Friday the Royal Assent was given by commission to the Medical Practitioners' (Colonies) Bill.

MR. LE GROS CLARK'S FIRST LECTURE

AT THE

ROYAL COLLEGE OF SURGEONS,

ON THE PRINCIPLES OF SURGICAL DIAGNOSIS, ESPECIALLY IN REFERENCE TO SHOCK AND VISCERAL LESIONS.

June 1, 1868.

Mr. Clark commenced his lecture by alluding to the mutual relation which exists between anatomy and Surgery. The acquisition of a knowledge of the former, he said, is much facilitated by an acquaintance with its application to the latter, an application which cannot be inculcated too soon. Anatomy, however, is not to be studied solely in subserviency to Surgery: in this, as in so many of our pursuits, it is requisite to instil a habit of waiting till lapse of time shall unfold the *cui bono* of our work.

The lecturer then remarked that the subject he had chosen was so comprehensive and important that he thought it excusable to devote the first lecture to the consideration of some circumstances having an influential bearing upon its successful study.

Too hasty generalisation, he proceeded to observe, in the science of Medicine is a grave and prevalent fault, and hinders its progress, though an explanation may be sought in the eagerness of the ardent student to seek some by-path to fame. Imperfect statistics are used to support some crude hypothesis. This abuse of a valuable element in the advancement of Medical knowledge is much to be regretted. Statistics, to be useful, must be extensive, ample, and impartially collected. In the hands of the insincere inquirer they become a source of mischievous fallacy and incalculable error. The fact is, that the real discoveries in practical Medicine are few compared with the legion of rediscoveries which each successive generation sees, "so many old dishes," as Mr. Travers said, "served up under new covers." Yet these are not to be despised by their proprietor; they constitute the most valuable part of his experience, a possession in a great measure purely personal, not inherited, and which cannot be transmitted to another. It is sad to contemplate how vast an amount of knowledge is lost to the Profession when the practised hand and eye and mature judgment are withdrawn from amongst us by death, and it is to be deplored that so many of our men of eminence should leave no record of their experience. Something is being done by the publication of Hospital reports; but the evil might be remedied better by freer intercourse between the Surgeons of our different Hospitals for the interchange of thought and the results of observation.

But whilst too hasty generalisation is to be deprecated on the one hand, so, on the other, our students should be taught not to attach an undue importance to details. It is a great mistake to suppose that the great end of student life is to collect precedents for future use. The learner should habitually realise that these facts are suggestive of higher and more general principles. An illustration is afforded by the treatment of fracture. A student, without regarding the great law which Pott enunciated of the importance of position in securing rest to the muscles, would be continually at a loss to understand the principles of apparatus and plans of treatment. Hæmorrhage furnishes another illustration of the value of principles, as, indeed, does every branch of Surgery, and none more so than the subject selected for this course. Principles are not to be neglected because we do not always see their application; the agencies which influence the living organism, modifying its state, compel us often to modify our treatment, but we are not therefore to fall back on empiricism. We should be stimulated to fresh research to discover some further principle which shall include the apparent exception. All physical science begins in analysis, proceeds to classification, and ends in theory. It is not uncommon, however, to find speculations, belonging to the last, attempted before the necessary evidence has been collected. The love of order and classification leads to premature generalisation and consequent inconsistencies. It is so in the history of all the natural sciences.

The progress of generalisation in pathology and therapeutics is further hindered by the obscurity which envelopes the living organism. Our anticipations constantly miscarry. Even the morbid anatomy of the changed textures after death fails to inform us of the *modus operandi* of the morbid agent. Even therapeutic Surgery is often coarse in its application, and mechanical in its operation. Some steps in advance have been made, especially in observations on the chemical and mechanical changes in the living organism, alterations of temperature, and variations in the electrical state, especially where the nervous system is involved in the disease. To the microscope we are much indebted. It has shown that the first step in inflammation is the arrested motion of the blood-corpuscles, and it is probable that that is the result of an interference with a non-material agency—the mutual relation between the blood-vessels and their contents. We are too apt to overlook the unity of inflammation in all its varieties—acute and chronic, adhesive, ulcerative, phagedænic, gangrenous, all are phases of the same state modified by accidental circumstances, as the relation between the destructive and reparative processes, etc. So in the inflammation of different tissues there is identity in all essentials, the differences resulting partly from the physical properties of the affected textures.

Inflammation is not now regarded as necessarily mischievous—a disease, *per se*, to be combated by every possible means. Perhaps it should even be regarded as always friendly in design, though that friendly intention may be frustrated. The same exciting cause may produce on different individuals very different results, depending on differences of idiosyncrasy, temperament, and so on. In three persons, for instance, cold may produce periostitis, rheumatism, pneumonia; a fourth will escape altogether. To say that one organ is more susceptible than another is no explanation. In Surgery these conditions are often less obscure than they are in Medicine, but still they require comprehensive study to render them intelligible. For this reason specialities have a tendency to retard the progress of scientific study. There is some sophistry in the argument that the division of labour enables greater attention to be devoted to special diseases. In proportion to their exclusiveness, Practitioners have no time or opportunity to cultivate other branches, and the contracting influence of exclusive study is irresistible. All conditions are looked at in one special light. The art of Surgery may be acquired by the exclusive Practitioner; he may teach well, but he will not advance scientific Surgery. An instance of the way in which special branches are advanced by those who are not exclusive is afforded by ophthalmic Surgery, the most successful cultivators of which have been such men as Tyrrell, Lawrence, Dalrymple, whose position and reputation were also associated with general Surgery. The popular success which so often attends devotion to special branches is a temptation to premature generalisation, and to the production of compilations containing authoritative statements of questionable value. Early success in practice is not the boon which many young men are disposed to regard it, and it is, in the end, detrimental to the science they would otherwise adorn if they devoted their youth to its advancement. Many promising workers have been lost to the Profession by the premature engagements of successful practice. Although it is a subject only affecting large towns, yet the influence on education must be seriously felt if special Hospitals are to absorb public

practice, and special Practitioners monopolise public confidence.

The principles of Surgery are too often regarded as derived directly from observation only, and not from reasoning founded upon observation. Science deals with the mutual relation of observed facts—it implies classification, arrangement, harmony. The independent facts must be compared, grouped into classes, and then moulded so as to form a basis on which intelligible principles of practice are founded. Large observation and practical experience are not the only measures of a Surgeon's capacity to practise his Profession successfully, because, if he trusts to precedents alone, he does not practise scientifically. This is the more important because the public measure Professional capacity by a different standard, and are readily imposed on by charlatanism. This is due to a defect in the public education. It is to be hoped that when there is a larger infusion of the scientific with the literary element in our public schools and universities, the status of the Professional man will be more justly appreciated, because better understood, by the public. Mr. Clark went on to say that the possession of habits of thought and study was best secured by the sound preliminary education which present regulations enforce, and he thought that the College had no reason to be ashamed of either a tardy recognition of this important subject, or indifference or laxity in the effort to realise it. Yet it is, he said, to be regretted that there must be a limit to the required qualifications, both for the study and practice of Medicine; for, unfortunately, the inducements which now exist to draw young men into the Profession are not so alluring, compared with other occupations, as to admit of further impediments by more rigid tests of scientific proficiency. The law of supply and demand might be allowed to regulate it if a corresponding principle determined the remuneration of Medical men. Then there would be no objection to an exclusive standard; but it is not so, and the necessary consequence would be to deprive our teeming population of a sufficient supply of qualified Medical men.

The influence of these general principles before alluded to is seen in the diagnosis and treatment of disease. In diagnosis, in the comparison of similar cases, and the discovery of remote analogies in those which seem to stand alone. In Surgical treatment, the importance of these principles is even greater. An acquaintance with the structure and functions of the frame, as well as with the various relations of sympathy and vicarious action in various organs, is necessary before the Surgeon can know rightly when and how to give assistance. To trust in Nature's guidance, and that it is wiser to follow than to lead, are lessons that we take long to learn. The active phenomena of disease often express Nature's resentment at the injury done to the system, though often destructive in their effects, and the Surgeon will watch anxiously for the reaction which follows shock and operation, and will estimate thereby the reparative powers of his patient.

The intimate alliance between the nervous and vascular systems is a source of numberless unexpected complications demanding patient research to unravel. This is peculiarly the case with the visceral lesions to be considered in the following lectures.

The subject of diagnosis is a very wide one, and includes much of what saves Medicine from becoming empiricism, and Surgery from what it was in its barbarous days, mutilating and sacrificing many at the shrine of its ignorance. Happily, the qualifications for Surgical diagnosis are within the reach of all who have opportunities and earnestness for their work. Mr. Clark then glanced at the difficulties in forming a correct diagnosis, the difficult education of the senses, the occurrence of two forms of injury at the same place, the existence of old deformity, the difficulty of learning the true history of a case. In illustration of these, he adduced the history of necrosis, the early symptoms of which were often misapprehended, and he cited two cases in which they were mistaken for rheumatic fever. All these principles had a peculiar bearing on lesions of the viscera, the diagnosis of which was often a matter of extreme difficulty, and sometimes of impossibility. In illustration, he mentioned a case of popliteal aneurism, the symptoms of which much more closely resembled those of an encephaloid tumour.

Negative symptoms, he said, are often very important in diagnosis, especially in visceral lesions, where the course of treatment often turns on the absence of some symptom. In these, as in all other cases, diagnosis is important as determining treatment, and especially important when on a correct diagnosis rests the question of operative interference.

The relation between operative skill and Surgical science has often been misapprehended. In this, different from many practical sciences—as that of the soldier or the engineer—the head that plans and the hand which executes both belong to the same person, and manual dexterity, skill in execution, is but a small part of the ability necessary to perform a successful operation.

The lecturer next referred to the possibility of too great regard for details interfering with an accurate diagnosis, by embarrassing the Practitioner and preventing him from getting the true perspective of the case in all its bearings. He illustrated this by referring to La Place, whom his master, the Emperor, wished to honour by appointing to an important public post, but found him utterly unfitted for it by minute attention to unimportant detail. "He introduced the infinitesimal calculus into the management of business."

In conclusion, Mr. Clark paid a high tribute to the memory of Mr. Travers, whose life and labours he regarded as exemplifying the principles he had been endeavouring to enforce, who had done so much to give a scientific tone to Surgery, and whose memory was an enduring protest against an impatient thirst for fame.

MEDICAL NOTES ON PRISONS, PRISONERS, AND PUNISHMENTS.

THE CITY HOUSE OF CORRECTION, HOLLOWAY.

Of all classes of criminals, boys and women are at once the most promising and the most unsatisfactory. When either class has lapsed into crime by accident, and, before they have had time to become accustomed to it, their evil deeds have been arrested, there is great hope of ultimately saving them from destruction; but should either become inveterate offenders, it may almost be said that there is no chance of escape left for them. There is no more difficult problem than what to do with our female convicts, as we shall have occasion to show. As a rule, the women found in Holloway Prison are hardened and debased. There is a Ladies' Committee for the prison, eagerly anxious to do what can be done for any of them, but they go their ways reckless as they entered. Now and again one may be persuaded to enter a reformatory, but they rarely persevere in well-doing. Some of them are pickpockets and shop-lifters, but the majority are of a lower class. The occupations they are engaged in are oakum-picking, laundry work, knitting, and needlework.

In many respects, the boys' is the most interesting of all the departments of a criminal prison. The causes of crime can here be studied much better than in any of the others, and we are better enabled to understand what can and ought to be done by way of deterrence and reform, than when we have to deal with less plastic material. The two divisions for boys and women are in Holloway Prison situated right and left of the main entrance, completely shut off from the other portions of the building; but in other respects there is nothing very peculiar about them except such as depend on the employment of the women. The boys are chiefly engaged in picking oakum and in preparing materials for mat-making, those sentenced to hard labour being also employed on the treadwheel. In the history of the lads there confined we found much to interest us. The first we saw was a rather bright-faced intelligent lad who had received a tolerably good education, had a good home, and had been apprenticed to a good master. Unfortunately for himself, he had acquired a taste for the cheap nastiness of the press now scattered broadcast to poison the minds of the young; he had read Jack Sheppard, Dick Turpin, and suchlike veracious histories, until he had acquired a desire to imitate such deeds and fame. Of course the opportunity would not be very difficult to obtain. Another boy, of a like romantic turn of mind, was determined to go to sea in search of adventure. He had tried to obtain a vessel in London, but had failed, and proposed that they both should go to Liverpool in search of such employment The funds for the journey were wanting, and this boy robbed his master of fifteen pounds, with which they set out. Capture and imprisonment speedily followed, and now he has time to regret his mad folly; but it is questionable if the evil inflicted by such literary pests will be thus effaced. The next was a lad of lower mental development; he also was an apprentice who had robbed his master, but to a smaller extent, the sum taken being half a crown. Into this he had been led by evil companions, one a boy who lived in the same

street, and who associated with others still worse than himself, especially one in the Waterloo-road, a regular thief and companion of thieves. The money taken was spent in stuff to eat. A low-looking boy, a regular thief, engaged our attention. He was asked what he proposed doing when he left prison; he said he didn't know. Would he go home to his father? His father wouldn't receive him; he had robbed him two years before. This boy had been engaged in thieving for two years and a half, and had never before got into trouble. He lived in the Borough, and had chiefly "worked" there. His money he spent, when he had any, in going to the "Vic" (Victoria Theatre). Latterly he had no pleasure in his occupation, although he had at first, and would be glad to leave it. He had tried the sea, and would like to try it again. His right knee-joint and leg were, however, so much distorted by disease that it was evident nothing could be done for him in this way. He said that when he had his belly full and a few halfpence in his pocket he did not care what chances of picking pockets he had—he would let them escape. Next came two regular thieves, one of them evidently a liar, as most are, by way of preference. He had been four times in Holloway Prison, but would not confess to having been in any other, probably because he was known at Holloway, and his convictions recorded against him, whilst the officers there would of course be ignorant of any imprisonments elsewhere. He generally worked in connexion with a number of others, who, by effecting a diversion, enable the thief and receiver to escape. This is considered the safest, but not the most profitable, plan of thieving, as the stolen property has to be divided among a number of individuals. He had begun to be alarmed, as many of their gang had been sentenced to penal servitude, and he was afraid that his turn would come next. The other boy was one of great intelligence. His father was dead, but his mother was still alive. He had received a good education, and had given in return great vexation to every one connected with him. His mother, he said, wished him to get seven years, which he considered very wrong on her part. It was all very well for the public at large to wish such as he out of the way, but for one's mother—that was a very different thing. He was a very expert thief, and generally worked by himself. He did not live in the ordinary thieves' quarter, but was acquainted with as many as a hundred such as he. The largest sum he had ever made in one day was £8 6s., and this he spent in three or four days along with others of his class. He would be very glad, he said, to leave off if he could get a good situation, but who would trust one like him? He had thought of his position, for he had been in all the prisons about London before, and knew that he would likely be in for penal servitude should he be caught again; but for this he had apparently made up his mind. These boys had been led away by bad company; the last one was extremely well read, and evidently much superior to the ordinary category of prisoners.

The next we saw was a poor little fellow, who spoke so low we could scarcely hear him. He could neither read nor write, and was in prison for stealing a purse containing twopence. He had engaged with another boy at pitch and toss, and had lost a halfpenny, which the other called on him to pay. He, having no money, was urged on to steal the purse, for which he was now imprisoned. Surely this is a terrible satire on what we see and hear of in higher spheres of life. Another boy was an optician, but could neither read nor write; his father was well employed, and earned about thirty shillings a week, but had never sent him to school. Times became bad; he was out of employment as well as his father, and stole some glasses, for which he was put in prison. He had never been in trouble before.

Next, we have a victim to tobacco. A labourer's boy, hitherto respectable, in conjunction with another, stole 550 cigars. The other was let off; this one was imprisoned. His only inducement was inordinate love of smoking. He was sure of getting employment when he got out, but was afraid his father would not receive him again (here he burst into tears); he was, however, assured that everything would be done for him towards reconciling him with his parents, which seemed to comfort him. He had never been in trouble before, and was sure he would never get into prison again. A printer's boy out of employment, who had been made a catspaw of by two potmen in committing a burglary, where he was caught in the act, next turned up; he had not been in trouble before, and wished to go to sea. A boy who had been a plasterer's assistant, and appeared gifted with a most ungovernable temper which had previously led him into difficulties, was in prison for an assault; he would get employment when he went out of prison. The last and most deplorable case of all was a boy of highly respectable connexions. He himself, being an apprentice in a first-class business, had been led to frequent with his fellows the London music-halls. Being under age, he was required to be in the house by ten o'clock, but as his mother lived not very far away, he could get off from his place of business, and, on pretence of going home, was able to remain out all night. At these places he got into company with low women, after which the story is the old, old one. A boy of sixteen would not, even by the most liberal parents, be too freely supplied with money, so that his resources became exhausted; unable to resist the fascinations of these places of amusement, and unable to raise by proper means the necessary funds, he attempted a forgery on his master, was caught in the act, and sent to prison. He would be taken care of when his time was up, and, as he wanted to go to sea, a berth would be found for him; but it is a question whether the deleterious influences of these low haunts acting on a young and impressible mind would be wiped out by his term of imprisonment. His future is still a problem; let us hope for the best. We might speak of others, but these will serve as samples of the ordinary prison material. The prime importance we attach to these histories depends on the light they throw on the motives which actuate to crime, more especially when acting on young minds.

A most valuable feature of the discipline of this prison is the helping hand offered to all who are willing to accept it. Here we have a boy who wants to go to sea. His outfit is secured by the prison authorities. Another is desirous of starting as a shoeblack; but his friends, either from poverty, callousness, or warned by the bitter fruits of disappointment, refuse to aid him. Still the prison authorities will give him a chance, and start him again on the road of life. The grand deficiency connected with most of our prisons is the want of some intermediate establishment where a prisoner would be secure from temptation to sin until employment has been obtained—where he might be shielded from want and protected from evil influences. As matters now stand, he steps from the prison-door into the midst of old associations and influences, which few are able to resist—few, indeed, even try to do so. There is no intermediate stage in which he may have an opportunity of retrieving a character; for the prison, being looked upon as a place of punishment, not as a place of reformation, is not esteemed by most people a training-school to virtue; hence the difficulty of obtaining work immediately. When a man leaves prison, he cannot starve, and, as matters now stand, the temptation to lapse into crime is almost irresistible. He leaves prison, not exactly destitute, for that no one is allowed to do from Holloway, but without the means of maintaining existence in idleness for any length of time. If he is earnest in his search after work, he may ultimately succeed; but how is he to live in the meantime? Much good is done by the governor of the prison in inducing parents to take home young children for a time until they can obtain work; but all have not parents, nor even friends. If, on the other side of the picture, we see the thief who has been for a time removed from indulgences which have thereby become all the more dear to him, received by his fellows with open arms—for *he* has no difficulty in finding employers—and revelling, as he has often pictured in his mind that he would revel, can we wonder that so few leave their evil practices, and become creditable members of society? Are we so guiltless in this matter in thus leaving our fellow-men without a chance of escape from the toils in which they are ensnared?

THE will of John Davy, M.D., F.R.S., has been sworn under £14,000. The watch which was his late brother's, Sir Humphry Davy, Bart., he leaves to his son Archibald, according to promise. The silver venison-dish which formerly belonged to Sir Humphry he leaves to his wife, and afterwards to be held by his daughter as an heirloom. He also leaves to his daughter the presents of gold and silver which were made by the Emperor of Russia to his brother, and the snuff-box from the Sultan, that she may take out the diamonds from the latter to use as ornaments of dress. The service of plate formerly belonging to Sir Humphry, in accordance with his wishes, after the decease of testator's wife, or earlier, if she thinks proper, is to be given to the Royal Society; and a medal, cast from the said service of plate, is to be given annually for the best subject on chemistry.

REVIEWS.

Education and Training considered as a Subject for State Legislation, together with Suggestions for making a Compulsory Law both efficient and acceptable to the People. By a Physician. London: John Churchill and Sons. 1868. Pp. 107.

We notice this work, not because it is Medical in subject, but because its author is a Physician, and it is a credit to our body that so many its members interest themselves in questions of general philanthropy. The work is divided into four chapters. In the first the writer treats of the general duty of educating and training children, and, with regard to training, intimates that moral precepts are of little use without practice. He speaks of the defective moral training of many persons in the upper classes who have had a brilliant education. Witness the numbers who dream away their life in novels, or resort to "the low blacklegs of the abandoned crew," or promote bubble companies. He might have spoken of their ignorance of physical science, and their proneness to become the dupes of quacks, homœopaths, mesmerists, table-turners, spirit-rappers, and vendors of cosmetics. In the second chapter evidences are adduced of deficient education and training in this country, and not only so, but of all the other ills, such as overcrowding and typhus, pauperism and profligacy; but this chapter fails to show any necessary connexion between the want of education and pauperism. Fluctuations in trade, bad seasons, and strikes are causes of distress and obstacles to education, but do not spring from mere ignorance. In Chapter III. the author describes the efforts of society and the State to mitigate the evils of defective education and training, or, if we may express what the author means in other words, to carry education amongst classes who have it not and do not seek it—for he chiefly refers to pauper children, and he gives a useful sketch of the progress of State assistance to education of late years. We may remark in passing how necessary it is for writers who wish to give a full and fair view of the history and philosophy of education not to confine themselves to the time since the invention of printing. The fourth chapter contains a scheme for national education and for raising the requisite funds, amongst which, by the way, we strongly object to a proposition for a capitation tax of 7s. on every child *not* educated in a charity school! Not a fair thing, we think, to the classes who struggle to educate their children independently; we would rather have a capitation tax on all unmarried persons with a certain income. We must perforce refer to the book for details as to the scheme, which is creditable to the benevolence of the anonymous Physician who devises it.

RECENT WORKS ON THE HISTORY OF CHEMISTRY.(a)

During the last two years we have received no less than three independent works on the history of chemistry, a subject on which our own literature is singularly scanty, inasmuch as the only works we can call to mind as having appeared during the last half-century are Dr. Thomson's "History of Chemistry" (two vols., 1830), and Whewell's "History of the Inductive Sciences," in which a considerable space is allotted to this subject.(b) Dr. Gerding's bulky volume of about 600 large octavo pages is none the less valuable for being avowedly based upon Kopp's "Geschichte der Chemie," which appeared in four volumes in the years 1843-47. It is divided into two parts and an appendix. The first part, which occupies nearly half the volume, is entitled "General History of Chemistry; or, Historical Development of Chemical Science, with reference to the most distinguished Chemists and their Labours." This history is divided into four periods, viz.:—1. The ancient period. 2. The mediæval, extending from the middle of the fourth to the seventeenth century, and divided into the period of alchemy, ending at the first quarter of the sixteenth century, and the period of Medical chemistry. The third and fourth periods embrace modern chemistry, the former extending from the middle of the seventeenth to the end of the eighteenth century, and being what may be termed the phlogiston period, while the latter, which may be termed the quantitative period, extends from the closing year of the eighteenth century to the present date, and not only contains sketches of the lives and labours of the fathers of chemistry—Lavoisier, Fourcroy, Vauquelin, Proust, Dalton, Gay-Lussac, Thénard, Davy, Berzelius, Faraday, etc.—but notices the labours of many living chemists. Why, in his remarks on English chemists, he should give far more prominence to the labours of Stenhouse and Sheridan Muspratt than to those of Playfair, Anderson, Wanklyn, and Gladstone, we are as much at a loss to understand as why he should totally ignore the names of Hofmann, Odling, Williamson, Frankland, and Brodie; and considering that in his second part he devotes several pages to the different tables of atomic weights that have been published by different chemists, it is somewhat startling to find no mention of the great revolutionist in that department, Cannizaro. The second part is entitled "Special History of Chemistry; or the History of the most important Theories and Doctrines, and of the individual Elements and their Compounds." Here we have an excellent account of the development of the atomic theory, the various theories regarding salts, acids, etc.: in short, this part forms a history of theoretical chemistry. The second portion of it, in which the individual elements are historically treated, is, although imperfect in its details, very useful and instructive. If, for instance, we turn to phosphorus, we learn who discovered it, and from what source it was first obtained, who first detected its presence in certain vegetables, in bones (in the form of phosphate of lime), and in the mineral kingdom; what were the views of its composition in the phlogistic period; and we have brief but sufficient descriptions of the investigations of Lavoisier, Davy, Dulong, Pelouze, and others regarding various phosphorus compounds; while we have not the slightest allusion to the discovery of amorphous phosphorus. The supplement, which is by no means the least valuable part of the book, forms a brief history of organic chemistry. It commences with a sketch of the various theories of compound radicals, nuclei, types, etc., and then goes on to describe the progress of our knowledge from the earliest times of such subjects as sugar, starch, oils, and fats, alcohol and the ethers, and the most important organic acids, while it concludes with the history of the most important alkaloids, the protein substances, and the cyanides. We may add that the value of the work is much increased by its excellent index.

Dr. Hoefer's work, of which we have as yet received only the first volume, is written in the pleasant, readable style that characterises all the productions of that author's somewhat prolific pen. While not so profound as Gerding, he has produced a far more interesting volume. Like Gerding, he divides his history into periods, the first of which extends from the earliest times to the ninth century, and the second from the ninth to the end of the sixteenth century, at which date the present volume ends. In addition to a large number of admirable (but necessarily short) biographical sketches of the leading contributors to chemical science during these periods, he devotes special sections to such subjects as the early chemical history of bread, fermentation, wine, beer, oil, metallurgy, coins, tissues (for clothing, etc.), washing materials, dyes, writing materials and ink, precious stones, glass, pottery, embalming, poisons, and a whole host of equally popular topics. We look forward with interest to the appearance of his second volume.

We think it better to delay expressing any opinion of M. Chevreul's great undertaking until at least a second volume appears, as the present one, which contains nearly 500 pages, is taken up solely with preliminary matters. It is intended that the work should form four volumes, but as the distinguished chemist is now in his eighty-second year, it will probably remain a magnificent fragment.

(a) Geschichte der Chemie. Bearbeitet von Dr. Th. Gerding. 1867. Leipzig: Grunow. London: Williams and Norgate.

Histoire de la Chimie. Par Ferdinand Hoefer. Deuxième édition, revue et augmentée. Tome premier. 1866. Paris: Firmin Didot frères. London: Williams and Norgate.

Histoire des Connaissances Chimiques. Par M. E. Chevreul, Membre de l'Institut. Tome premier. 1866. Paris: Guérin. London: Williams and Norgate.

(b) It is much to be regretted that the late Professor George Wilson was not spared to carry out a scheme which he long had in contemplation of publishing a history of British chemists and chemistry. His admirable articles on "Robert Boyle," "The Life of Wollaston," and "The Life and Discoveries of Dalton," collected in his "Religio Chemici," show how eminently qualified he was for such a task.

The conversazione of the Society of Arts at the South Kensington Museum on Wednesday last was an unusually brilliant one. It was largely attended by members of our Profession.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, June 2.

THE twenty-sixth annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held on Monday, the 1st inst., in the King and Queen's College of Physicians, Dr. Churchill, President of the College, in the chair. While it is to be regretted that not one-fourth of the Medical men of Ireland are subscribers to the fund, the report read by the Honorary Secretary, Dr. M'Clintock, was encouraging. From the report it appeared that the funded capital of the Society is now upwards of £13,000. After the Dublin meeting of the British Medical Association, the Reception Committee, on winding up their accounts, found a surplus of £18 11s. 9d. remaining to their credit, which sum they handed over as a donation to the funds of the Society. The grants already made, and to be made for the past twelve months, amounted to £807. In reference to the operations of this admirable Society, I am induced to send you the following appropriate remarks, which appeared this morning in the columns of our excellent morning journal, *Saunders' News Letter*, now well advanced in the second century of its existence :—

"Modern presents no more refreshing contrast to ancient civilisation than in the existence of that practical public benevolence which enjoyed but a faint, if indeed any, vitality in the old world. In the celebrated Empires of the East, as well as of Greece and Rome, with all their triumphs in statesmanship, policy, war, and philosophy, there lurked a selfishness which daily corroded the machinery of the social fabric. In our day—owing to causes that are well known—every effort is made, both by confraternities and individuals, to diminish, as far forth as possible, the suffering that presses upon mankind with greater or less inequality. Of all the charitable agencies at work amongst us none deserves more consideration or sympathy, or is more energetically or prudently worked, than the Royal Medical Benevolent Society, whose meeting yesterday we record the proceedings of in another column. The objects of such an institution are praiseworthy to the last degree. The Physician may fitly be pronounced one of the most eminent benefactors of his age. Doctors are real because practical philanthropists, and their labours are in themselves the soundest refutation of that sentimentality which all but quenches decision of purpose in doing good, or anything else. But the Doctor's labours constitute one of his strongest claims on the benevolence of his fellow-creatures. There exists not on earth, amid all its varied employments, an avocation that entails an equal strain on body and mind. Obvious is the inestimable service conferred upon humanity by the Physician's self-denial both in acquiring and applying the requisite knowledge for the alleviation of pain, as well as the removal and prevention of disease. What would be the highest civilisation, or the most profuse riches, or the most complete commercial prosperity, without the successful cultivation of that godlike art? Hereby men are taught how to arrest the wear and tear of life inseparable from constancy in mental or physical exertion, thus stemming a torrent of suffering that otherwise would break down the active powers of our race. In these impulsive and uneasy days, we eagerly seize every opportunity of paying honours where we conceive them deserved. Strange to say, we omit the rule to a very remarkable extent in the case of Doctors. We are foremost to heap distinctions on orators, senators, and military chieftains, while too frequently, alas! we fail to crown with laurels the Physician's brow. But a more solid and enduring work than even the recognition of worth—which, however, has its excellent uses—is performed by the Royal Medical Benevolent Society. This society is an honour to those eminent Physicians who superintend its working, and deserves enlarged support. The recipients of its bounty are those whom age, or sickness, or other causes, have incapacitated from either the study of one of our noblest sciences, or the practice of an art more than any other bound up with the well-being of humanity."

The annual meeting of the Irish Medical Association was held on the same day in the Royal College of Surgeons, Dr. Mackesy, of Waterford, presiding. The President called on the Association to make active exertions to secure the representation of educated classes in Ireland in Parliament under the new Reform Bill. Among other matters brought under the notice of the Association were the questions of the payment of Medical witnesses and of the superannuation of Medical officers. Dr. Ashe moved a resolution expressing the desire of the meeting that the Medical Council should be so modified as to its constitution and powers that registered Practitioners should be directly represented on it, and that a high and uniform standard of education should be enforced on the licensing bodies throughout the kingdom. The motion, having been seconded by Dr. Morrogh, was unanimously passed.

At a meeting of the Royal College of Surgeons in Ireland, also held on the 1st inst., the following officers were elected for the ensuing year :—*President :* George H. Porter. *Vice-President :* Rawdon Macnamara. *Secretary :* William Colles. *Council :* William Hargrave, Robert Adams, James Barker, William Colles, Hans Irvine, Samuel G. Wilmot, Richard G. H. Butcher, Thomas L. Makesy, Hamilton Labatt, Benjamin M'Dowel, Edward Ledwich, William Jameson, Alexander Carte, James H. Wharton, George W. Hatchell, Albert J. Walsh, Edward D. Mapother, William A. Elliott, Archibald H. Jacob.

A special meeting of the Dublin Social Marine Board was held on the same day, the Right Hon. Sir William Carroll, M.D., Lord Mayor, in the chair, for the purpose of electing a Medical Inspector of Seamen for the Port of Dublin. On a division Dr. C. F. Moore was elected by a majority of 5 to 2, and his name was accordingly sent forward to the Lords of the Committee of the Privy Council for Trade for confirmation.

GENERAL CORRESPONDENCE.

ON THE INVENTION OF LOCAL ANÆSTHESIA BY REFRIGERATION.

LETTER FROM DR. JAMES ARNOTT.

[To the Editor of the Medical Times and Gazette.]

SIR,—The system lately introduced of presenting testimonials for Medical researches gives so much weight to the opinions expressed in the address customary on such occasions, endorsed, as these opinions must appear to be, by the whole body of subscribers, as to render it highly desirable that there should be no expressions or omissions in such address unintentionally calculated to detract from the justly founded reputation of others who have been previously engaged in similar researches.

He who heard or has read Mr. Paget's eloquent address on presenting a testimonial to Dr. Richardson, which was published in the *Medical Times and Gazette* of last week, would have been led by it into misapprehension respecting the origin of some of the discoveries mentioned in it, unless he had previously learned their history from other sources. If unacquainted with the history of local anæsthesia, he would, from the manner it is there spoken of, have inevitably inferred that it is to Dr. Richardson that we owe this means of producing insensibility without incurring the risk and inconveniences of chloroform, whereas all that Dr. Richardson claims, and all that Mr. Paget can, of course, wish to award him, is the credit of having added another valuable means to those which had been already in use of generating and applying the requisite degree of cold in this process. The discovery that the animal tissues can be frozen without being injured, and that this proceeding furnishes us with a safe and perfect anæsthetic in many operations, as well as with a cure of certain diseases, was made six years before the evaporation of ether was substituted by MM. Richet and Guérard for freezing mixtures, and sixteen years before Sales-Giran's invention of the conversion of fluids into spray was adapted to the construction of an instrument for projecting the ether. Mr. Paget was amongst the first English Surgeons who employed a freezing mixture as an anæsthetic, and an account of his operations performed with it was published in the *Medical Times and Gazette* for July 1, 1854.

In a letter with which Mr. Paget has favoured me, he gives the following explanation of what I have adverted to :—"I did not in the presentation of the testimonial to Dr. Richardson refer to your researches, simply because the speech I made was not in any degree intended to be historical. In like manner I omitted all mention of previous means of destroying the power of portions of the nervous centres, and of others' observations on concretions in the heart and on various forms of phthisis."

I have another and a more important purpose than the

vindication of a claim to a discovery in adverting at present to the subject of local anæsthesia. I am anxious to state that although it may not be of the slightest importance on many occasions which of the various modes of applying cold is selected, at other times the efficacy of the proceeding depends on this selection. The power which it possesses of freezing large surfaces at once and equably, and of freezing the tissues deeply in consequence of our being able to combine with it the auxiliary measure of pressure, gives the method of producing cold by the rapid solution of ice a great superiority over that by the rapid evaporation of ether, in the deeper and more extensive operations and in cases of inflammatory and other disease. I am, &c. JAMES ARNOTT.

8, St. Stephen's-crescent, Westbourne-park, May 30.

A CAUTION.

LETTER FROM DR. BARNES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have learned from several sources that Dr. Lesser, a foreign Physician, has been seeking pecuniary assistance from members of the Medical Profession, and supporting his request by showing a letter written by me.

It is hard to withhold help from a man of education who has been unfortunate. Two or three years ago Dr. Lesser brought to me, from two of my colleagues, introductions that satisfied me as to the position he had held. Some weeks ago he called upon me, stating that he had at last succeeded in effecting his return home; that his passage was paid for, his wife actually on board, and he himself was to join next morning; that he only wanted a small sum for necessaries. He came, he said, from Dr. Daldy, my friend and neighbour, who had promised to assist him if he brought a recommendation from me. For this special purpose, and on the faith of the representations set forth, I gave him a letter *addressed to Dr. Daldy*. He has made an improper use of that letter. I therefore feel called upon to state these facts as a caution to my Professional brethren. I am, &c.

46, Finsbury-square, May 30. ROBERT BARNES.

HAS PROTOXIDE OF NITROGEN ANÆSTHETIC PROPERTIES, AND CAN IT BE SAFELY ADMINISTERED TO MAN AND THE LOWER ANIMALS?

LETTER FROM MR. W. A. N. CATTLIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—The remarks which were made at the Medical Society of London by Drs. Richardson and Sansom respecting the poisonous qualities of nitrous oxide have led me to institute experiments upon some of the lower animals, with the view to ascertain whether this gas does possess the anæsthetic properties imputed to it, and whether it can be safely used to produce anæsthesia in the human subject during short Surgical operations.

Having witnessed its effects upon patients at the Dental Hospital of London, under skilful administration by Mr. Coleman and Mr. Potter, I have been convinced that protoxide of nitrogen does possess the power of affording immunity from pain, and I have arrived at the conclusion that, under certain conditions, it can be safely administered for one minute, but that its effects cannot be kept up beyond two or three minutes without risk unless atmospheric air be admitted from time to time when the countenance becomes congested. I am fully aware that Mr. Clover and others have maintained the anæsthetic effect of nitrous oxide for a much longer period, but in this case the unskilled cannot with impunity imitate the actions of the expert, and, until Medical men become better acquainted with the mode of administering the gas, great caution will be necessary in order to insure the safety of the patient.

Before it can come into general use it is necessary that the supply shall be equal to the demand, and that its administration shall be proved to be safe in the hands of the ordinary Medical Practitioner. The former of these requirements will probably be met by its manufacture in a portable form, while experience will prove or disprove the high claims which have been set up for nitrous oxide as a safe and effectual anæsthetic agent. I have given it, to the point of true anæsthesia, to the rat, rabbit, guinea-pig, dog, donkey, and pig, with success, and I have been surprised to notice how closely the symptoms produced in these animals resemble those observed in the human subject.

The conditions, according to my experience, which are necessary in order to insure the safe and effectual operation of protoxide of nitrogen are:—

1. That the gas shall be moderately fresh and perfectly pure.

2. That it shall not be administered for longer than from one to two minutes without allowing atmospheric air to pass into the lungs.

3. That no air shall be given with the gas until the patient is profoundly under its influence.

4. That the tube through which the inhalation takes place be not of small diameter, and that great care shall be taken during the operation to prevent any impediment to the free course of the gas by accidental twisting or bending of the tube.

5. That the gas shall not be forced into the lungs by too great pressure upon the vessel in which it is contained.

The inhalers I have used have been constructed to fit each animal, upon Snow's principle, and in every case the gas has been administered in the open air. It was obtained from Messrs. Bell and Co., of Oxford-street, through the disinterested kindness of Mr. Gale, to whom I am indebted for many useful suggestions.

If air was accidentally admitted by the side of the inhaler, the animal invariably struggled; but if due precaution was taken to prevent the admission of air, no struggling took place, and the animal was quietly brought under the influence of the nitrous oxide, and did not show signs of pain when deeply pricked with sharp-pointed instruments, such as a broach, a hunting-spur, etc. Whenever the foregoing rules have been strictly adhered to, the pig, dog, and donkey have been deprived of sensation in about one minute after the inhaler was adjusted, and it was curious to note their complete recovery from profound insensibility in about the same space of time. The rat, rabbit, and guinea-pig may be affected in about thirty seconds; and, although the rule does not invariably hold good, each animal takes about the same time to recover as it does to become deeply affected by the gas. In the case of the donkey, the first experiment was very successful. The animal was rendered insensible, recovered consciousness, and was actually eating grass, all within the short space of three minutes. In the second experiment (one week afterwards), air was accidentally admitted by the side of the inhaler; consequently, the animal struggled violently, and was only rendered partially insensible to pain, although a large quantity of gas was consumed.

It was the opinion of a few Medical friends who witnessed my experiments that some of the animals were really dead; yet their complete recovery was not prolonged much beyond the time I have stated, and they have not since shown any sign of illness. In one or two of the animals the rectum evacuated its contents, and I have observed the same thing once or twice in patients who were under the influence of chloroform. The pointer dog and guinea-pig are in different stages of utero-gestation, and I shall be careful to note the effect of the nitrous oxide upon their offspring.

I am about to conduct other experiments to ascertain the poisonous qualities of this gas, and then to submit animals at the point of death to the influence of supposed antidotes, such as oxygenised air, pure oxygen, galvanism, etc. These experiments shall be faithfully recorded if you think them of sufficient interest to be worthy of a place in the columns of the *Medical Times and Gazette*.

I am &c. WM. A. N. CATTLIN.

Westfield Lodge, Brighton, June 1.

LIGATURE OF A MAIN ARTERY TO ARREST ACUTE TRAUMATIC INFLAMMATION.

LETTER FROM MR. C. F. MAUNDER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Twelve months ago I proposed the application of a ligature to the superficial femoral artery to check acute inflammation of the limb following wound of the knee-joint. The operation was performed with immediate and continuous benefit, and the patient recovered. I need scarcely say that at that time I believed the suggestion to be original, and have only now been undeceived by the perusal of a short paper upon the subject in the *American Journal of Medical Sciences*

of April, 1868. It there appears that the femoral artery was ligatured, first, for wound of the knee-joint, by H. U. Onderdonk, M.D., in the year 1813, and occasionally since that date also in America. It is a curious fact that no Surgeon has ever informed me that my suggestion was not original, and it is still more strange that the author of the "Annus Medicus, 1867," published in the *Lancet*, should have spoken of the operation proposed by me—"As bold and *novel* (the italics are mine), and withal successful Surgical proceedings of the year, we may mention the ligature of the femoral artery in a case of acute traumatic inflammation of the knee-joint, on the principle of diminishing the arterial supply of an inflamed part—a principle suggested by Mr. Maunder, and now under much discussion." Still, with the evidence before me, it is clear that I cannot claim priority in the suggestion, and I hasten, by thus addressing you, to give credit to whom credit is due.

I am, &c. C. F. Maunder, F.R.C.S.

29, New Broad-street, June 2.

PHOSPHORUS IN SKIN DISEASES.

Letter from Dr. John C. Thorowgood.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your report of Dr. Broadbent's paper read before the Medico-Chirurgical Society I observe the following:—"The satisfactory progress of three cases of severe eczema under the use of phosphorus seems to promise that this substance will be a valuable addition to our means of treatment in this class of cases."

This matter of the effect of phosphorus in diseases of the skin brings to my recollection the case that has recently been under my observation of a man affected with phthisis, and who had at the same time psoriasis on the face and wrists.

This patient was treated with five grains of the hypophosphite of lime three times a day with satisfactory results, inasmuch as the expectoration diminished, the cough ceased, and strength returned. I thought, as I saw this man from time to time, that the psoriasis was improving, but said nothing till he himself said he was sure it was better. Then I said to him, "I suppose it always does get better at times;" he said yes, it did, but never as it was now doing; and he showed me a place he had had for years on his wrist, which was to all appearance quite well for the first time since it had existed.

I remember my colleague, Dr. Fenwick, remarking to me some time ago that he regarded eruption of acne about the face and shoulders in phthisis as an indication for administering the hypophosphite of lime.

The use of phosphorus in skin diseases is no new invention, for many years ago the remedy was used in eczema and psoriasis by Dr. Burgess. I am, &c.

John C. Thorowgood, M.D. Lond.,
Assistant-Physician to Victoria-park Hospital.

London, May.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 19.

J. Simon, Esq., F.R.S., President, in the Chair.

Reports were read by Dr. Dickinson on Dr. Bristowe's specimen of colloid disease, by Mr. Hulke on Mr. Bryant's specimen of mammary tumour, and by Dr. Dickinson on the specimens of cystic tumour shown by Mr. Spencer Watson.

Dr. Peacock then exhibited, for Mr. Hooper May, a specimen of

RUPTURED HEART,

occurring in a laundress who for some time had suffered from pains in the chest. She fell down whilst walking across the yard, was found in a collapsed condition, and died in three-quarters of an hour. The pericardium was filled with blood, the muscular tissue was pale, and a dark line was noticeable on the left ventricle. On pressing this, a little clot was squeezed out, and an aperture the size of a goose-quill was discovered leading into the ventricle. The walls of this were not thinned.

Dr. Kelly exhibited

I. AN ANEURISM OF THE ABDOMINAL AORTA,

occurring in a man aged 30. It was noticed eighteen months ago. Swelling of the left leg came on. An incision was made in the thigh, and the femoral artery was tied beyond the aneurism. After death the aneurism was full of clotted blood, and was found to spring from the lower portion of the abdominal aorta.

II. MALFORMATION OF THE HEART, GIVING RISE TO CYANOSIS,

only, however, when the child cried. It lived eight months. An opening was found between the two ventricles. The left was hypertrophied, the right small and atrophied, having in life done little or no work.

III. AN AORTA RUPTURED SPONTANEOUSLY

in a horizontal direction, just at the beginning of the descending portion. It was removed from an old man who was found dead in bed.

Mr. Bickersteth, of Liverpool, exhibited

I. AN ANEURISM OF THE TIBIA,

removed from a boy aged 11 years. He had received a kick over the lower part of the leg, and was recovering when he received another, after which the parts gradually increased in size, but with little or no pain. Various men were consulted; their opinions differed; finally the limb was removed, when it was found to be as true a specimen of aneurism as could well be, there being no true malignant material present.

II. The ankle of a man aged 37, who, although in good health, began to complain of pain and swelling in the right ankle. The foot became brawny and thickened. The ligaments appeared to be gone, as the foot could be moved in any direction. When the leg was removed the bones were found to be enlarged, and their cancellated tissue appeared to be replaced by solid bone. The tarsal bones were changed in shape and size. Instead of ligaments there appeared to be cartilaginous processes; in short, the joint was totally disorganised; yet there was no pus, only synovia present. The astragalus was denuded, and to some of the bones were attached a number of loose cartilaginous bodies. He really did not know what to call it; it rather more resembled osteoid cancer than anything else. Referred to Messrs. Bryant and Adams.

Dr. Robinson showed a

PERFORATING ULCER OF THE DUODENUM,

removed from the body of a sergeant in the Fusilier Guards, aged 36, and able for duty up to the day of his death. He complained of pain after exerting himself at rackets, and died of rapid peritonitis within twenty-four hours of his seizure. The ulcer shown was found. He had previously complained of slight dyspepsia.

Mr. De Morgan exhibited

I. A RECURRENT MAMMARY TUMOUR,

which had reformed after an operation seven years ago. The tumour was large and pendulous. On removal it was found to be of a cystic character, but many of the cysts were filled with an adenoid material.

II. A TUMOUR OF THE BREAST

removed from a woman, aged 55, who had noticed this swelling five years before. The skin had given way at one point, whence issued a sprouting mass, which did not, however, implicate the skin. In the other breast was a purely scirrhous enlargement. There had been much hæmorrhage from the sprouting mass, but she appeared to die from the effects of the cancer in the opposite mamma. After removal, a creamy fluid containing many cells exuded from the fungous growth, and still, after a long period had elapsed, the same material could be squeezed out. There was no trace of colloidal disease. Both specimens were referred to the Committee on Morbid Growths.

Dr. Green showed a

CONGENITAL MALFORMATION OF THE HEART,

giving rise to cyanosis. There was no trace of a pulmonary artery, the aorta sprang from the right side, and there existed a small opening between the two ventricles.

Mr. H. Arnott exhibited

I. SOME OF THE PARTS REMOVED FROM A SUBJECT WHO HAD DIED OF ANÆSTHETIC LEPROSY.

The man was 39 years of age, and had been nine years in Trinidad. The ends of his fingers and toes were gone; the nose was scabbed and fallen in. After death the liver was found to be cirrhosed, the nerves thickened, at one point fusiform, and their funiculi enlarged. The glands were also enlarged.

II. A SPECIMEN OF SECONDARY CANCER INVOLVING THE PELVIS. The disease had existed in the breast for nine years, and for two years the patient had suffered pain in the pelvis, thighs, and legs. The pelvis was deformed by tubera, and the bones were very soft. Referred to Committee.

Dr. MORELL MACKENZIE exhibited a

MORBID GROWTH OF THE LARYNX,

producing atrophy of the left crico-arytenoid muscle and pressing on the recurrent laryngeal nerve. The subject was a lady, aged 56, who suffered much from stridor and dyspnœa on movement, which were relieved by the recumbent position and absent during sleep. The canal was diminished and unsymmetrical. Tracheotomy was performed; on the third day after, a violent paroxysm of asthma came on. She sank in ten days. Small projections, apparently of muscular tissue, were found in the larynx. Referred to Morbid Growth Committee.

Dr. HYDE SALTER said with reference to the existence of asthma in this case, which he had seen, the patient was said to have suffered from it before the operation, but of this he could not be certain. He was rather inclined to think that it came on after the operation, and may have been produced by pressure on the nerve and excited by the entrance of cold air.

Dr. LLEWELLYN WILLIAMS, who had attended the patient, remarked that she was said to have been labouring under asthma, but he had examined her and referred the disturbance to the larynx.

Mr. HINTON showed a portion of the ear of a child 9 months old of a tuberculous habit. In the tympanum were masses apparently tuberculous, which would probably in course of time have given rise to disease in the surrounding bones.

Dr. EDWARDS CRISP exhibited some specimens and wax models illustrative of the so-called typhoid fever in the pig and the origin of tubercle in the lower animals.

Dr. MURCHISON was not aware of Dr. Crisp's researches at the time he brought his specimens, which had been in his possession at least twelve months before the cattle plague was talked of, before the Society.

Dr. CHURCH showed a specimen exhibiting

CONGENITAL MALFORMATION OF THE LEFT AURICLE,

occurring in a woman, aged 36, who had suffered from winter cough sometimes, also from hæmoptysis. There was slight anasarca when she was seen. Her pulse was feeble, her heart's action rapid. The left auricle was divided by a septum with a button-hole orifice, the smaller chamber communicated with the mitral orifice, the other somewhat resembled an auricular appendix.

Dr. WILSON FOX exhibited

AN ULCER IN THE STOMACH,

produced by swallowing an ounce of strong hydrochloric acid. The boy died after having vomited blood. The stomach was adherent to the colon, but the ulcer had eroded an artery.

Mr. BARWELL showed a specimen of

OLD-STANDING DISEASE OF THE STOMACH,

removed from a man, aged 36 or 37, who had been ill for some time. There had been no vomiting, but latterly the man could only take liquid food. He died of exhaustion. A cavity was found in front of the stomach, probably formed of omentum, and communicating with the viscus, a portion of whose contents it received. Lower down there was an old ulcerated hole with well-rounded edges, but nothing had escaped by it. Another opened behind.

Mr. DE MORGAN had a drawing taken of the stomach in a subject in the dissecting-room. There was an ulcer with hard round edges, with no adhesions, and no trace of the contents having escaped.

Mr. MOORE had seen something like this in the bowel.

The PRESIDENT here remarked that, as ten specimens still remained for exhibition, it would be impossible to go through with them that evening; they would therefore be taken, so far as the *Transactions* were concerned, as exhibited. It was a rule of Lord Chesterfield's always to depart when he had succeeded in making a good impression, and, to adopt that rule, they could not separate for the recess under more favourable auspices than at the present moment.

The following specimens were brought forward for exhibition, but not shown:—1. Enlargement of the Viscera from a Case of Rickets.—Dr. Dickinson. 2. Calcareous Exfoliations from the Thyroid Cartilage.—Sir Duncan Gibb. 3. Laryngeal Tumour.—Sir Duncan Gibb. 4. Gelatinous Tumour of the Breast.—Mr. Weeden Cooke. 5. Fibroid Tumour of the Breast.—Mr. Weeden Cooke. 6. Rupture of the Aortic Valves.—Dr. Murchison. 7. Rupture of one of the Chordæ Tendineæ of the Mitral Valve.—Dr. Murchison. 8. Necrosis of the Larynx.—Dr. Murchison. 9. Cancer of the Lumbar Vertebræ, Left Kidney, and both Supra-renal Capsules.—Dr. Murchison, for Dr. H. Jeaffreson. 10. Abscess between the Vagina and Rectum.—Mr. Osman Vincent. 11. Gangrene of the Foot.—Dr. Martyn.

NEW INVENTIONS.

CORVER AND CO.'S PRESERVED MILK AND PRESERVED OYSTERS.

WHERE can we get preserved milk for our children? Such is the question often put to Medical men by mothers before undertaking a sea voyage, be it even a prolonged cruise in a yacht. We have seen specimens of milk put up in half-pint tins, at 6s. 6d. per dozen, by Corver and Co., preservers of provisions at Southwick, in Sussex. Some of the cream has been converted into a tasteless butter, which is easily skimmed off, and leaves a good full-bodied milk behind, of sp. gr. 1035, and with the smallest perceptible taste of having been heated. We have also examined specimens of Messrs. Corver's preserved oysters, which may be called perfect in flavour and consistency, and may be relied on at any time when fresh oysters are wanted by the sick, but are not forthcoming.

BRITISH MEDICAL ASSOCIATION.

METROPOLITAN COUNTIES BRANCH.

SPECIAL GENERAL MEETING.

A SPECIAL general meeting of this branch was held at the rooms of the Medical Society of London, on the evening of Monday, June 1, to receive the report of the Committee appointed on March 10 "to consider the question of Dr. Eastlake's treatment by the Governors of the British Lying-in Hospital," with authority "to investigate the collateral matters relating to the course pursued by Dr. Edmunds, Dr. Eastlake, and the editor of the Journal."

In the unavoidable absence of the President, the chair was taken by Dr. Stewart, and afterwards by Mr. Dunn. About forty members were present.

Dr. HENRY, Secretary to the Committee, read the report, and also the following letter from Dr. Eastlake:—

"Malvern, Saturday, May 30, 1868.

"Dear Sir,—I beg to acknowledge with thanks the Report of the Committee of the Metropolitan Counties Branch of the British Medical Association, which was formed for the purpose of investigating the treatment I have received from the Governors of the British Lying-in Hospital. I am pleased to learn that the members of the Committee do not approve of the abrupt dismissal from my office of Physician to the Hospital, which was proposed by the weekly board of that charity. I regret that the Committee have been prevented from expressing any definite opinions on certain questions at issue; but I can readily understand their unwillingness to do so on account of the pending legal proceedings. I desire to express my thanks to the Committee, and to yourself for the trouble you have taken, and remain, sir,

"Yours faithfully,

"HENRY E. EASTLAKE.

"Dr. Henry, 15, George-street, Manchester-square."

Mr. HECKSTALL SMITH moved, Dr. R. BARNES seconded, and it was resolved, "That the report now read be received."

Dr. RAMSAY moved, and Mr. LORD seconded—"That the report be adopted."

Dr. EDMUNDS moved as an amendment, and Dr. SEATON seconded, "That the first portion of the report be adopted." The amendment was lost.

After a discussion, in which Dr. Stewart, Mr. Heckstall Smith, Dr. Squire, Dr. Felce, Dr. Drysdale, Mr. Lord, Dr. Duplex, Dr. Edmunds, Dr. Seaton, Mr. Rogers-Harrison, Mr. Lord, Dr. Simms, and Mr. Hart took part, the report was adopted as follows:—

"The Committee of the Metropolitan Counties Branch, appointed on March 10 to examine into the treatment of Dr. Eastlake by the Governors of the British Lying-in Hospital, and other circumstances connected therewith, beg to report that they have held six meetings—viz., on March 13, 24, and

31, April 7, 14, and 21; at which, with one exception, all the members have been present.

"The Committee, in commencing the inquiry, found that the matters referred to them by the Branch were to be divided into—

"I. The treatment of Dr. Eastlake by the Governors of the British Lying-in Hospital.

"II. Personal dispute between Dr. Eastlake and Dr. Edmunds.

"III. Charges brought by Dr. Edmunds against the editor of the *British Medical Journal*.

"I. As regards the first point—the forced resignation of Dr. Eastlake—the Committee have read and carefully considered various printed and written documents bearing on the subject; and have examined, orally, Dr. Eastlake, Dr. Edmunds, Mr. Leaf, Mrs. Firth (late Matron to the Hospital), Miss Hodges, Mrs. Clark (the present Matron), Mrs. Coombes (midwife), two of the women attended from the Hospital by Dr. Eastlake, and other persons. In this inquiry, a great amount of conflicting and irreconcilable evidence was given. The investigation of this matter has occupied the Committee during the greater part of their sittings; and they now beg to submit the following as their conclusion thereon:—

"That, while not approving either of the abrupt dismissal of Dr. Eastlake, or, on the other hand, of the bearing of Dr. Eastlake towards the Board of Governors, the Committee, after a careful consideration of all the facts and circumstances disclosed in this lengthened inquiry, unanimously recommend the Metropolitan Counties Branch of the British Medical Association not to take any further action in the matter.

"II. With regard to personal matters of dispute between Dr. Eastlake and Dr. Edmunds, the Committee have unanimously agreed on the following resolution:—

"That the Committee do not enter on an inquiry as to the circumstances of dispute between Dr. Eastlake and Dr. Edmunds, as they have been informed that legal proceedings are pending between them.

"III. The Committee have examined personally Dr. Edmunds and Mr. Ernest Hart regarding the allegations made by the former as to the conduct of the *British Medical Journal* with reference to Dr. Eastlake and the British Lying-in Hospital, and have carefully considered the charges made by Dr. Edmunds.

"Mr. Hart has given explanations which are completely satisfactory to the Committee, and the Committee have no hesitation in reporting that Mr. Hart is completely exonerated from the charges.

"The Committee agree unanimously on the following resolutions:—

"1. The Committee, having heard the statements of the editor of the Journal and Dr. Edmunds, made in presence of each other, thoroughly and entirely acquit the editor of all the charges brought against him by Dr. Edmunds.

"2. The Committee cannot refrain from expressing their strong disapproval and condemnation of the charges made by Dr Edmunds, and especially of the terms in which they were couched.

"3. The Committee receive with some degree of satisfaction the expression of regret made by Dr. Edmunds towards the close of the investigation, of his having 'hastily' made use of language which, to say the least, was most ungentlemanly and unprofessional. At the same time, they desire to report their strong condemnation of the use of such language on the part of any member of the Association, or, indeed, of the Medical Profession generally, as that employed by Dr. Edmunds in his pamphlet.

"T. Heckstall Smith, in the Chair.
"W. F. Ramsay, M.D.
"Waller Lewis, M.B. Cantab.
"Charles F. J. Lord.
"G. T. Gream, M.D.
"Thomas Hillier, M.D.
"Joseph Seaton, M.D."

Dr. Drysdale moved, and Dr. Edmunds seconded, a vote of thanks to the Committee, which was unanimously adopted.

The meeting then adjourned.

Dr. Speedy, having completed his period of office as Assistant-Physician of the Rotundo Hospital, has removed to 13, North Frederick-street, Dublin.

NEW BOOKS, WITH SHORT CRITIQUES.

Companion to the New Edition of the London Pharmacopœia 1867. By Peter Squire, F.L.S., etc. Sixth Edition. 1868. Pp. 333.

*** Short as the interval is since the issue of the fifth edition, Mr. Squire has found time to fill up every nook and corner with fresh hints and little bits of information in the shortest and most epigrammatic style. He has added the *colour* of every liquid and solid preparation—rather difficult, but very useful. In the index there is an attempt at differentiation by putting all the *official* preparations in Roman, and all the others in italic letters. Certainly, in using a Pharmacopœial drug, it is good sense to use the Pharmacopœial name. But let us ask why the word *official* should be used instead of *officinal*, which simply means that which is, or ought to be, kept for use in shops. Some people might say that so small a change is *officious*. Many useful suggestions strike the eye—*e.g.*, how to keep mucilage; and with regard to keeping infusions, there is one fact mentioned in former editions which involves more than meets the eye—viz., the fact that some infusions will keep if one grain per ounce of nitre be added. The antiseptic virtues of nitre deserve further exploration. The fact that Mr. Squire finds that *acidum sulphurosum* will not keep of the Pharmacopœial strength, shows that finality is no property of a Pharmacopœia. When treating of the use of chloride of ammonium in neuralgia, it would have been well to have specified the kind of neuralgia, but in a work like this the therapeutic must necessarily be subordinate to the pharmaceutic element. One new remedy introduced, the *ignatia amara* (rather a dangerous one, by the bye), is not in the index. We have looked through this edition, and note with great pleasure its increased value, and may add that the index consists of nearly fifty pages.

Clinical Lectures on the Principles and Practice of Medicine. By J. Hughes Bennett, M.D., F.R.S.E., Professor of the Institutes of Medicine, and Senior Professor of Clinical Medicine in the University of Edinburgh, etc. Fifth Edition. Edinburgh: A. and C. Black. Pp. 1037.

*** To say that this great work has been thoroughly revised and adapted to the present state of our knowledge is to say what every one knowing Professor Bennett would already understand. We might, in fact, say that he had almost transcended the bounds of the known. Admirable as are Professor Bennett's writings on the subject of a molecular physiology and pathology, his peculiar views have failed to carry with them conviction to the minds of all, and it is therefore to be regretted that they should constitute the fundamental doctrines of a great text-book. Although not so popular as are some works on the principles and practice of Medicine, this volume carries with it recommendations which cannot be surpassed. Professor Bennett's admitted pre-eminence as a clinical teacher cannot fail to stamp a feature of usefulness on his work, more especially to the advanced class of Medical students. It is not the work to be taken up by one who eagerly longs to rush with a full *armamentarium* of medicines into the field of practice—in other words, it is not the book to be desired or to be read by the would-be empiric, but to him who aims at a full scientific knowledge of practical Medicine there is none to equal it.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—The following gentlemen obtained the Licences in Medicine and Midwifery during the months of January, February, March, and April:—

Ahern, Wm., Liskeard.
Eagar, Oliver Stokes, Tralee.
Greenhalgh, Thos., Manchester.
Hewitt, Samuel Morton, Dublin.
Huston, Robert Todd, Carlow.
Jones, Charles Edward, Dublin.
Kirwan, Albert, Dublin.
Knox, Maurice, Ballybrack.
Lynch, Francis Edgeworth, Drumcondra.
McMullen, Wm., Dublin.
Mosse, Charles Benj., Staff Surgeon.
Paterson, Fred. Robt., Dublin.
Sale, Gregory, Coolcor.
Stock, Wm. Henry, Clouroche.
Walsh, Charles Joseph, Castlebar.

The following obtained the Licence to practise Medicine:—

Akerman, Wm., London.
Birney, Arthur Thos., Dublin.
Brownrigg, J. Annesley, Kingstown.
Cameron, Charles Alex., Dublin.
Harding, Wm. Henry, Eastbourne.
Husband, Edward, Middlesborough.
Jennings, Charles Boromeo, Ennis.
McMunn, Andrew, Ballymote.
O'Grady, Francis Richard, Ballyhannis.

The following obtained the Licence in Midwifery:—

Gilmore, Thos. Charles, Ballibay.
Leathem, James, London.
Thornton, Daniel, Kinnetty.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 28, 1868:—

Bennett, Charles John, Cheltenham.
Betts, James Oliphant, 19, Kenton-street, W.C.
Cremen, Patrick John, Cork.
Fendick, Robert George, Bristol.
Firman, Charles George, Middlesex Hospital.
Hackney, Alfred Herbert, Twickenham.
Payne, George, Wallingford.
Sharp, John Adolphus, Maidstone.
Vawdrey, George, Hayle, Cornwall.
Whitehouse, Thomas Gill, Durham.

As an Assistant:—

Sale, Thomas John, Wokingham, Berks.

In the pass list for Thursday, May 21, the name "John Kirshaw" should have been John Kershaw.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARNES, HENRY, M.D. Edin.—Physician to the Catlish Fever Hospital.

BELOE, C., Assistant-Surgeon, 3rd King's Own Staffordshire Militia—Surgeon to the Enrolled Pensioners and Staff, Newcastle-under-Lyme.

INGLIS, WALTER W., M.R.C.S.E., L.S.A.—House-Surgeon to St. Thomas's Hospital.

MARSH, WM. JOSEPH—Assistant Medical Officer to the County Asylum, Littlemore, near Oxford.

MIDDLEMIST, R. P., M.R.C.S.—Honorary Surgeon to the Artists' Benevolent Fund.

RIDGE, J. JAMES, B.A., B.Sc., L.R.C.P., M.R.C.S.E.—House-Surgeon to St. Thomas's Hospital.

NAVAL AND MILITARY APPOINTMENTS.

BROCK, EDWARD, Staff Assistant-Surgeon, half-pay, has been permitted to retain his commission.

COGAN, MICHAEL, to be Assistant-Surgeon Royal Artillery, *vice* Arthur Chester, appointed to the Staff.

HARE, GEORGE, Staff Assistant-Surgeon, to be Assistant-Surgeon to the 55th Foot, *vice* Espine Ward, appointed to the Staff.

KELLY, JAMES, M.D., Royal Artillery, having completed twenty years' full pay service, to be Surgeon-Major, under the Royal Warrant of April 1, 1857.

MURRAY, JOHN ROSS, M.D., to the Royal Artillery, from the 107th Foot, to be Assistant-Surgeon, *vice* Thomas Stawell Barry, appointed to the Staff.

VALLANCE, EDMUND, to the 2nd Dragoon Guards, to be Assistant-Surgeon, *vice* John Noble Shipton, promoted to the Staff.

WILSON, WILLIAM DEANE, M.B., Staff Assistant-Surgeon, from the 107th Foot, *vice* John Ross Murray, M.B., appointed to the Royal Artillery.

BIRTHS.

DALY.—On May 29, at 101, Queen's-road, Dalston, London, the wife of Frederick H. Daly, M.D., prematurely, of a son, who only survived his birth fifteen hours.

HAWKINS.—On June 2, at Campbell-road, Bow, Middlesex, the wife of James Stillwell Hawkins, Surgeon, of a son.

HOOKER.—On June 3, at the Royal Gardens, Kew, the wife of Dr. Hooker, F.R.S., of a daughter.

LEACHMAN.—On May 29, at Petersfield, Hants, the wife of A. Warren Leachman, M.D., of a daughter.

POPE.—On May 30, at Stepney-green, the wife of Mr. Edmund Pope, Surgeon, of a son.

MARRIAGES.

ARGLES—HARDING.—On May 28, at St. Lawrence's Church, Wormley, Frank Argles, L.R.C.P., of Hermon Lodge, Wanstead, Essex, to Julia Catherine, daughter of John Harding, Esq., Wormley, Herts. No cards.

BENNETT—TAYLOR.—On May 28, at St. John's Church, Paddington, Charles Vaughan Simmons Bennett, Surgeon, to Charlotte Elizabeth, only daughter of the late Captain Joshua Taylor, R.N. No cards.

BUTLER—KEATINGE.—On April 9, at Mount Abu, E. R. Butler, M.D., Civil Surgeon in Kattiawar, Bombay, to Annie Harriet, eldest daughter of Lieut.-Col. R. H. Keatinge, C.S.I.V.C., Agent to the Governor-General for the States of Rajpootana.

DALTON—GREENHOW.—On June 2, by the Rev. — Schaler, at "The Riding Mill," Northumberland, W. Ruffell Dalton, Staff Surgeon R.N., F.R.C.S., and L.A.C.L., to Maria J., second daughter of Conrad H. Greenhow, Esq.

DRAYTON—COVERNTON.—On May 14, at Simcoe, Canada West, Philip Hy. Drayton, Esq., Royal Canadian Rifles, to Margaret, eldest daughter of Charles William Covernton, M.D., of Simcoe.

HENDERSON—SMITH.—On May 28, at the parish church, Leeds, Edward Henderson, M.D. Edin., to Ada Louisa, eldest surviving daughter of Alfred Smith, Esq., of Leeds.

RENWICK—SAUNDERS.—On March 26, at the Congregational Chapel, Redfern, Sydney, N.S.W., Arthur Renwick, M.D. Edin., B.A. Syd., F.R.C.S.E., to Elizabeth, only daughter of the late John Saunders, Esq., of Laurence Pountney-lane, London, solicitor.

TOMLINSON—HOARE.—On May 27, at Dartford, Kent, Dodd W. Tomlinson, M.R.C.S. Eng., of Oundle, Northamptonshire, to Emily Mary Ann, eldest daughter of W. P. Hoare, F.R.C.S. Eng., of Dartford.

DEATHS.

ASHMEAD, SUSANNA, widow of the late Dr. Henry Ashmead, of St. Ann's, Jamaica, at 73, Upper Park, Hampstead, on May 29, in her 80th year.

GULLAN, DAVID, late Surgeon Bengal Army, at No. 28, St. Petersburgh-place, Bayswater, on May 29, in his 83rd year.

LETTS, Sir JOHN, K.C.B., M.D., F.R.S., at 72, Chester-square, on May 29, aged 71.

PRICE, Dr., F.R.C.P.E., at York-place, Edinburgh, on May 24, aged 71.

POOR-LAW MEDICAL SERVICE.

*** The Editor is obliged to defer many articles in type, and Communications intended for insertion, to the following week.

RESIGNATIONS.

Cuckfield Union.—Mr. Henry [illegible] Medical Officer for the Ifield District, salary £40 per annum, for Worth District, salary £40 per annum, also the Industrial Schools, salary £[illegible] per annum.

Cuckfield Union.—Mr. William R. Warren has resigned the Second A District, area 4240, population [illegible], salary £45 per annum, the Eighth District, area 5160, population 724, salary £11 2s. 9d. per annum; also the Ninth District, area 8630, population 1949, salary £36 15s. per annum.

APPOINTMENTS.

Eastry Union.—Charles G. Montgomery Lewis, M.R.C.S.E., L.S.A., to the Wingham District.

Seisdon Union.—Thomas W. Haslehurst, M.R.C.S.E., L.S.A., to the Pattingham District.

MEDICAL MAGISTRATE.—We have pleasure in stating that George Taylor, Esq., M.D., of Derby, has just been added to the Commission of the Peace for that borough by Lord Cairns.

THE next meeting of the Royal Microscopical Society will be held on Wednesday, the 10th inst., at King's College, at eight o'clock precisely. The paper will be on "The Relation of Microscopic Fungi to Great Pathological Processes," by Dr. Thudichum.

THE BRITISH ASSOCIATION will hold its next meeting at Norwich, on the 19th of August next. Dr. Joseph Dalton Hooker, the President, will deliver the usual opening address. Dr. Hooker is known to hold very decided views as to the question of the origin of species by natural selection, and his world-wide experience of floræ and careful investigations in physiological botany entitle him to speak as "one having authority" on perhaps the most attractive scientific problem of the age.

ARMY MEDICAL DEPARTMENT.—The annual meetings of the Army Medical Officers' Friendly and Benevolent Societies were held on Saturday, May 30, at the Army Medical Board, Whitehall-yard. The funds of both societies are in a very satisfactory condition, but it is to be regretted that so few of the younger members of the Medical Department subscribe to the Friendly Society, the object of which is to provide annuities for Medical officers' widows by the payment of a small annual subscription. The donations granted this year by the Benevolent Society to the orphans of Medical officers left in distressed circumstances, amounted to £600, the largest sum that has been distributed since the establishment of the Society in 1820.

TERRA ANGLICA.—On May 21, 1529, the Parliament and Provost of Paris addressed a letter to the Faculty of Medicine, asking whether it would be right to allow, in consequence of its bad smell, the use of coal (*terra Anglica*) by the blacksmiths. The learned body replied that, provided means were taken to effectually direct away and remove the smoke, no inconvenience for the workers would result from the use of this substance.—*Union Méd.*, No. 60.

THE LEVÉE.—At the Levée held on Saturday at St. James's Palace by His Royal Highness the Prince of Wales, on behalf of her Majesty, the following presentations took place:—Dr. George Butler, on return from service in India, China, and Japan, by the Secretary of State for India. Dr. James Campbell, R.N., of her Britannic Majesty's Consulate, Siam, by Lord Stanley. Assistant-Surgeon Richard William Davies, by the Adjutant-General. Dr. Alexander Garden, Surgeon, Indian Army, by the Secretary of State for India. Dr. J. Africanus B. Horton, Staff Assistant-Surgeon, by the Adjutant-General. Sir Trevor Lawrence, on succeeding to the baronetcy, by Sir W. Gomm. Surgeon David Michael, by Colonel Pinney. Dr. Peake, by the Adjutant-General. Assistant-Surgeon Arthur Priest, M.D., by Lieutenant-Colonel Palmer. Staff Assistant-Surgeon Randall, by the Adjutant-General. Surgeon A. M. Rogers, Bombay Army, by the Secretary of State for India. Dr. Seward, Bombay Army, by the Secretary of State for India. Dr. Stovell, on being appointed a Companion of the Star of India, by the Secretary of State for India. Amongst the gentlemen attending the Levée were the following:—Sir James Bardsley, Sir Patrick O'Brien, M.D., Drs. Francis Hawkins, Leonard and Edward Meryon, Messrs. Spencer Wells and Erasmus Wilson.

DR. RAWDON MACNAMARA.—The friends of Dr. Rawdon Macnamara will learn with pleasure that he has been elected President of the Medical Benevolent Association, and Vice-President of the Royal College of Surgeons. From the latter position Dr. Macnamara will, in due course, and according to long-established usage, pass to the still higher and more distinguished place of President of the College. Dr. Macnamara's father was one of the most eminent Surgeons of this city, and filled the posts of President and Professor in the College of Surgeons, and Surgeon to the Meath Hospital. His son has followed in the footsteps of his worthy sire, being now a Professor in the College in which his father lectured for so many years, and Surgeon in the Hospital in which his

father proved himself so able a clinical teacher, and so excellent an operator. A year hence, Dr. Macnamara, in becoming President of the College, will have attained to all the honours achieved by his father, a circumstance of very rare occurrence. —*Irish Times.*

THE WATER SUPPLY OF LONDON.—So much has recently been said about Professor Frankland's method of water analysis and about the schemes which have been suggested for the supply of water to future London, that we think our readers will be glad to know where to find both these points fairly and fully treated. We have much pleasure in calling attention to the lecture delivered by Dr. Frankland before the Royal Institution, and now published in our contemporary, the *Chemical News* (May 29). Dr. Frankland has here given an impartial *exposé* of the plan of water-analysis which he now pursues, and which has been so vigorously and pertinaciously assailed in certain journalistic quarters. From a glance at this lecture the reader may inform himself of the many difficulties which surround the subject of water analysis, and will be convinced of the approximately perfect character of Dr. Frankland's ingenious, though somewhat elaborate, process for the determination of the organic carbon and nitrogen in potable waters.

WESTMINSTER HOSPITAL.—The distribution of prizes to the students of the Westminster Hospital took place on Thursday, May 28, in the board-room of the Hospital; James Hughes Anderdon, Esq., one of the vice-presidents of the Hospital, in the chair. The following is a list of the successful candidates:—Summer session, 1867.—Practical Chemistry: Prize, Mr. F. W. E. Dawson; certificate, Mr. Wm. Henry Box. Materia Medica: Prize, Mr. Wm. H. Box; certificate, Mr. F. W. E. Dawson. Botany: Prize, Mr. F. W. E. Dawson; certificate, Mr. Walter Wearne. Forensic Medicine: Certificates, Mr. F. S. Palmer and Mr. W. J. R. Ray. Midwifery: Prize, Mr. Stephen Francis Solly, jun.; certificate, Mr. Robert H. Lloyd. Winter Session, 1867-8.—Anatomy: Prize, Mr. Walter Wearne; certificates, Mr. F. W. E. Dawson and Mr. S. F. Solly, jun. Physiology: Prize, Mr. Walter Wearne; certificates, Mr. F. W. E. Dawson and Mr. Walter Pippette. Chemistry: Prize, Mr. Ferdinand Wallis; certificate, Mr. Christopher Harvey. Medicine: Prizes, Mr. F. S. Palmer and Mr. Edward Swain (equal). Surgery: Prize, Mr. Edward Swain; certificate, Mr. Robert H. Lloyd. Clinical Medicine: Prize, Mr. F. S. Palmer. Clinical Surgery: Prize, Mr. Robert H. Lloyd. Chadwick Prize for general proficiency: Mr. Edward Swain.

POOR-LAW MEDICAL OFFICERS.—At the Fulham Board of Works, a letter was read from the Poor-law Board recommending the allowing of £30 per annum increase of salary to the Medical officers of the Union as dispensers. The letter stands over for consideration. At the Shoreditch Board of Guardians, Dr. Burchell and Dr. Griffiths attended as a deputation to represent the views of the District Medical Officers in reference to the recent order of the Poor-law Board prohibiting them from employing unqualified assistants. They represented that under present arrangements it would be impossible for them to carry out the order. They would have to give £100 a year to a qualified assistant, which was all that they themselves received. They considered that their being responsible for their unqualified assistants was a sufficient guarantee that they would only employ those in whom they had confidence, and that the Poor-law Board had virtually recognised the present system. A discussion of considerable length took place among the guardians, when the Rev. H. P. Kelly (one of the Poor-law Board nominees) proposed the postponement of the consideration of the subject until after the question of dispensaries should have been settled. This chance of escape from a difficult position was eagerly seized, and the debate was adjourned.

THE Council of the Obstetrical Society has issued a circular to its members, intimating that Dr. W. Farr has suggested to the Council of the Obstetrical Society that it is desirable to investigate the causes of infant mortality, so far as they are connected with varying methods of management and treatment in different parts of England and Wales, and requesting answers to the following questions *within* three months:—"1. What proportion of the births are attended by Medical men, and what proportion by women? Are the women instructed? What, in either case, are the modes of procedure with the infant as to umbilical cord, dressing, administration of medicine, feeding, warming, etc.? 2. Are the infants suckled by the mother? For how many months? Or do they get artificial food, and of what quantity and quality? 3. Describe briefly the life of the infant at the ages of six and twelve months, through the twenty-four hours. The hours of sleep, dressing, washing (with hot or cold water), food, drink; nursing, in cradle or otherwise, by mothers or servants; going out into the open air, or being shut up in bedrooms; and particulars as to the use of medicines, cordials, or spirits. 4. Any other matters likely to influence life, such as accumulation in workhouses, lodgings, or places where infants are taken care of by the day or hour; or where put out to nurse? 5. Are children deserted? or ill-treated? And what are the principal causes of such desertion or ill-treatment? Are cases of concealment of birth common? Is infanticide common? 6. How many illegitimate births have been known to you during the past five years? And how many of the children lived over one year? Can you suggest any means for preventing the excessive mortality of infants, under one year of age, among the working classes? And any method for affording greater security for the lives of illegitimate, deserted, and orphan children?"

A SPECIAL meeting of the Medical Profession was held at Dr. Griffin's, Southampton, May 28, for the purpose of considering the club question, and agreeing to such resolutions as will best procure a unanimous Professional combination. Present, Dr. Griffin, *pro tem.* Chairman, Dr. Aldridge, Mr. Bencraft, Dr. Broster, Dr. Bond, Dr. Cheeseman, Mr. Dayman (Millbrook), Dr. Hearne, Dr. Harnett (Bitterne), Dr. Langstaff, Dr. Lake, Mr. Oliver, Dr. Osborne (Bitterne), Mr. Mott and Dr. Newman (Shirley), Dr. Sims, Dr. Symons (Woolston), Mr. R. Shorto, Dr. Trend, Dr. Welch (Southampton), Dr. Welch (Christchurch), Dr. Wilson (Freemantle). Letters also were read from Drs. J. and W. Bullar and Mr. Bromley expressing their approval of the movement; several others had verbally promised their co-operation. Dr. Griffin, after having explained what course it was most desirable to pursue, proposed that Dr. Osborne be requested to take the chair, seconded by Mr. Bencraft, and carried unanimously. Dr. Osborne took the chair. It was then proposed by Mr. Dayman, seconded by Mr. Bencraft, and carried *nem. con.*—"That it is the opinion of this meeting that, in the event of its being considered expedient to move in this question at all, it is desirable that united and unanimous action should be taken by the Profession in this neighbourhood." Proposed by Dr. Griffin, seconded by Dr. Welch (Southampton), and carried *nem. con.*—"That it is expedient that measures be adopted to secure a fairer remuneration to Medical men for their attendance on sick members of benefit societies." Proposed by Mr. Dayman, seconded by Dr. Harnett, and carried *nem. con.*—"That the minimum payment for Medical attendance on clubs and sick societies be fixed at 5s. per head per annum in cases within a radius of three miles from the residence of the Medical man; the distance applying only to towns." Proposed by Mr. Bencraft and seconded by Mr. Oliver—"That every member requiring an extra certificate of sickness shall pay not less than 1s. for each." An amendment was proposed by Dr. Broster and seconded by Dr. Cheesman—"That 2s. 6d. be substituted for 1s.;" but, being negatived, the original motion was put and carried *nem. con.* Proposed by Dr. Lake and seconded by Dr. Aldridge—"That the Medical officers in clubs in towns shall decline to dispense for the members of such clubs, and that, in consideration of an arrangement made for the supply of medicines by a chemist or chemists selected by the club, a sum of 1s. be deducted by the club from the annual payment to the Surgeon of each member." This resolution was carried *nem. con.*, after the rejection of an amendment proposed by Dr. Balk and seconded by Dr. Broster—"That the dispensing of medicines be left optional with the Medical officers." Proposed by Mr. Mott, seconded by Dr. Palk, and deferred for future consideration—"That every person on applying for a certificate of examination for admittance into a club shall pay 2s. 6d. to the Surgeon." Proposed by Dr. Griffin, seconded by Dr. Welch, and carried—"That in the event of these resolutions being agreed upon by the Profession in Southampton we pledge ourselves not to accept or continue to hold any appointment as Surgeon to a club or benefit society at a less payment than the above, nor to accept any club which has been rendered vacant by reason of the Surgeon to it demanding the aforesaid conditions." A committee was then formed for the purpose of getting signatures previous to calling another meeting, and Dr. Griffin and Mr. R. Shorto were requested to act as hon. secretaries. After a vote of thanks to the chairman, Dr. Osborne, the meeting adjourned.

IRISH MEDICAL ASSOCIATION.—At the annual meeting held at the College of Surgeons, Dublin, on June 2, Dr. Mackesy in the chair, the report was read and received. It chiefly referred to the very unsatisfactory state of the law as to the payment of Medical witnesses in courts of justice, the superannuation of Medical officers of the Poor-law and Dispensary services, and the harsh dismissal of two of these gentlemen by the Poor-law Commissioners. The following, amongst other resolutions, was passed:—"That, convinced as we are, by an increasing experience of the paramount importance of securing to the country competent Practitioners in Medicine and Surgery, we desire to record our anxious wish to see the Medical Council so modified, both as to its constitution and its powers, that the registered Practitioner shall be directly represented upon it, and that we may, through it, enforce a high and uniform standard of education, both preliminary and Professional, on the licensing bodies throughout the United Kingdom." The following gentlemen were elected officers for the ensuing year:—*President:* Rawdon Macnamara, Esq., M.D. *Vice-Presidents:* Dr. Beatty, Dublin; Dr. Benson, Dublin; Dr. Darby, Bray; Dr. Hynes, Galway; Dr. Harvey, Cork; Dr. Mackesy, Waterford. *Chairman of the Council:* Dr. Maurice Colles, Dublin. *Council:* Dr. Brassington, Dr. Byrne, Dr. Chaplin, Kildare; Dr. Churchill, Dublin; Dr. Chapman, Dr. Darley, Dr. Fausset, Dr. Hasler, Dr. Jameson, Dr. A. H. Jacob, Dr. Ledwith, Dr. Mapother, Dublin; Dr. Martin, Dr. Morrogh, Dublin; Dr. Minchin, Dublin; Dr. Porter, Dr. Purefoy, Dr. Tufnel, Dr. Wharton, Dublin; Dr. A. Walsh, Dublin. Together with the Presidents, Vice-Presidents, and Secretaries of the Provincial Associations. *Secretary and Treasurer:* Dr. Quinan, 29, Lower Leeson-street.

CASE OF HEMIDIAPHORESIS.—Dr. Meschede observes that cases of local sweating, temporarily affecting both sides of the body, are not uncommon, but he has met with a case of much rarer occurrence, in which a unilateral sweating, chiefly affecting the face, had become almost habitual. A furrier's man, aged 40, was admitted in 1855 to the Schwetz Asylum, Prussia, in a state of half idiocy, and amidst various abnormal conditions observed was the existence of a profuse sweating, confined to one side of the face. He continued in the Asylum until August, 1861, when he was seized with symptoms of sporadic Asiatic cholera, and in four days after died. At the autopsy there were found very remarkable hyperostosis of the cranium, great enlargement and cystic degeneration of both kidneys. The most remarkable feature about the case was the uninterrupted sweating of the face, which was limited to one side.—*Virchow's Archiv*, April 8,

MILK SICKNESS.—In the *Boston Medical and Surgical Journal* a picture of this disease is furnished by Dr. C. H. Smith, of Kenton, Ohio. The habitat of this strange affection is the basin of the Mississippi, where it is occasionally endemic. "We have had, for a short time, quite an endemic of this complaint, furnishing about fifty cases, of which seven died. The symptoms are, sudden and extreme prostration, nausea, prolonged vomiting, faintness; the temperature of the extremities and body falling much below the natural standard, and the skin often becoming clammy. Great distress and anxiety are depicted upon the countenance, the patient experiencing an undefined dread. He acquires a peculiar fœtor, or a sweetish odour. The tongue is swollen, and, in fatal cases becomes black with incrustation. The bowels become obstinately constipated, and a strong pulsation is felt over the whole abdomen, especially marked to the right of the umbilicus. The abdomen is caved in, and has the appearance of being empty. Cephalalgia and tinnitus aurium are common accompaniments. The heart and large arteries beat with violence, whilst the pulse at the wrist remains almost natural. The violent vomiting results in the ejection of a fluid of variable appearance. It is sometimes colourless, sometimes like soapsuds; in other instances, of the colour of indigo, and in the last stages of cases that terminate fatally it is dark-brown, with a dark-coloured sediment. The disease runs its course in a few days. The treatment is simple—a cathartic, tonics, quinine, stimulants, blisters over stomach, liquid farinaceous diet. Opium is not to be used in the disease, as cases get worse under its employment. All cases that occurred here were in American families, there not being one in a German family. Now, the cows of the two classes run on the same ground, and the cattle of both die with the disease; yet I have never known a case to occur among the Germans. The reason is, I think, plain. The Americans use the milk just as it comes from the cow, and the Germans boil what they drink."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

A Constant Reader.—1. Typhoid fever. 2. Sir James Clark, Sir William Jenner, Sir Thomas Watson.

A. A.—A good Higginson's syringe. We cannot recall the paper you inquire for just at present.

Newcastle-under-Lyne.—For a written report on the condition of a patient who has received a railway injury, and on the length of time before probable cure, supposing all due time and care have been expended on the case, a fee of five guineas would be well earned.

Med. Soc.—Dr. Henry J. Bowditch's work is a reprint of an address delivered before the Massachusetts Medical Society. It is published by Clapp and Co., Boston, U.S. Dr. Bowditch has been working at the subject for many years, and it seems to have proved that whilst consumption, generally speaking, is endemic in New England, it is so, speaking precisely, in those parts only where the soil is damp. Nothing can possibly be more worthy investigation, whether by Government officers or by private Practitioners, than the determining causes of a malady so fatal. We believe that Dr. Richard King instituted a laborious series of investigations into causes of mortality some time since, and found that some houses and streets were so much more prone to deaths from phthisis than others, that he was led to infer some local cause of the malady. For our own parts, we are so profoundly impressed with the dangers of living on a wet soil, and more particularly in houses such as are common in the country, where no cellar intervenes between the earth and the living rooms, and where no means are taken to avoid the rise of damp from the earth, that we believe a huge source of rheumatism, neuralgia, dyspepsia, anæmia, catarrh, and consumption would be at once cut off by better subsoil drainage and by means for hindering the rise of damp. These are no new opinions. Years ago we were impressed by the fate of the family of a wealthy tradesman who emigrated from a warm house in Regent-street to a villa built over a rather large space of clay soil in a northern suburb of London. They complained that the house was so cold, and it never could be made to feel warm. The mother soon died of phthisis following bronchitis, and one of the sons followed next year. The father next died of another malady.

WATERCRESSES FOR ASTHMA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am told by a patient that the popular prescription for spasmodic asthma in certain parts of the country is to eat heartily of watercresses, and it is said that the remedy is successful. Can any of your readers give me information about this? I am, &c. MEDICUS.

MIDWIFERY FEES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly answer the following queries? 1. A Medical man is retained to attend a lady in her confinement, from unexplained cause she leaves her residence, and engages another Doctor to attend her, without letting the first one know of her intention; can he (the first one engaged) recover his fee? 2. Are there any cases recorded, and when has this question been tried? I am, &c.

June 2. M.D.

*** Dr. Lavies, of Warwick-square, was treated in a similar manner by a patient, and recovered his fee in the County Court.

ATTENDANCE ON SOLDIERS' WIVES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It is evident from the following correspondence with Lieutenant-Colonel Elliot, of Her Majesty's 18th Regiment, stationed at Auckland, New Zealand, that the Medical regulations with respect to the treatment of soldiers' wives, which must have effect wherever the British army is stationed, have a most unjust bearing upon some members of the Medical Profession; so I think it right to call to attention to the subject. It would seem by those regulations that the British Government make no provision for the Medical treatment of soldiers' wives during the periods of the greatest trial and danger, but cast them upon the sympathies of the Medical Profession. Without doubt they would not appeal in vain to the members of that Profession, but this does not alter the ignominious inhumanity of the act. It is a stain upon our national humanity, and demands the consideration of the proper authorities.

I am, &c. S. J. STRATFORD.

Auckland, New Zealand, March 5.

(*Copies of Correspondence.*)

Dr. Stratford presents his compliments to Lieutenant-Colonel Elliot, and begs to inform him that Dr. Stratford has been called to see Mrs. Corporal Stapleton, of the 18th Regiment, she being in labour. As this is the second case of the kind which has occurred recently, Dr. Stratford is anxious to know if any remuneration will be allowed. Humanity requires that the poor woman should be assisted, so Dr. Stratford cannot refuse to go. Dr. Stratford will be thankful for an answer.

February 23, 1868.

March 1, 1868

Dear Sir,—I regret that absence prevented my sooner replying to your note of last night.

The Medical regulations now in force lay down—"Military Medical attendance cannot be claimed for women in childbirth, in the case either of an officer or of any one entitled to Medical aid, unless the assistance of a midwife or a Medical Practitioner cannot possibly be procured. In the event of the private Practitioner requiring the assistance of a military Medical officer in any case of danger, it shall be the duty of such officer to render necessary aid."

As regards the remuneration for the wives of soldiers, that would, I presume, come under the rules applied by the private Practitioner to his other patients of the same class.

The Government makes no allowance for such attendance.

Yours, &c. GEORGE A. ELLIOT,
Lieutenant Colonel, commanding 2nd Battalion 18th Regiment.

Auckland, New Zealand, March 3, 1868.

Sir,—I have the honour to acknowledge the receipt of your communication dated March 4, 1868, in which you point out from the military regulations "that Medical attendance cannot be claimed for women in childbirth, in the case either of the wife of an officer or any one entitled to Medical aid, unless the assistance of a midwife or Medical Practitioner cannot possibly be procured. In the event of the private Practitioner requiring the assistance of a military Medical officer in any case of danger, it shall be the duty of such officer to render the necessary aid."

I would respectfully intimate to Lieutenant Colonel Elliot that I consider it my duty to call the attention of Her Majesty's Secretary at-War, the Army Medical Department, and the British public, to an order so detrimental to the public service, so inhuman to the poor soldier, and so unjust to the Medical Profession—indeed, so monstrous in all its bearings as only to be properly considered to be instantly cancelled.

In the first place the inhumanity to the soldier is evident, when he would be required to pay, at the very lowest rate, the sum of two guineas in a case of instrumental delivery, etc., and perhaps, for Medical attendance and medicines afterwards, a far larger sum. It is perfectly impossible that his means would permit him to do so.

In the second place you cry down the credit of the regiment, and expect the private Medical Practitioner to collect from the soldier a large Medical bill, a circumstance which you know yourself would be perfectly impossible. Even had the man the means of paying, he could not be sued in a court of justice or imprisoned for debt, so that the order simply offers a premium for dishonesty.

If such be the facts of the case, you will agree with me that the sooner the Horse Guards is made acquainted with the anomaly the better. Moreover, I may state that when I had the honour to serve her Majesty in the 72nd Regiment I should have considered it derogatory to my duty to permit any other Medical Practitioner to attend any individual in the regiment committed to my charge, either male or female.

As to demanding a fee from a soldier under such circumstances, it would go greatly against my feelings and inclination.

I have the honour to be, Sir,
Your obedient servant,
S. J. STRATFORD.

To Lieutenant-Colonel Elliot, Commanding 18th Regiment.

COMMUNICATIONS have been received from—

A. A.; Mr. HENRY SERGEANT; Mr. C. ORTON; Dr. J. C. THOROWGOOD; Mr. W. DOBSON; M.D., PORTSMOUTH; Dr. JAMES ARNOTT; Mr. HENRY PILLEAU; Mr. THOMAS UNDERWOOD; Dr. GRIFFIN; Mr. J. R. SHORTO; Mr. BRUCE; Dr. T. K. CHAMBERS; Mr. W. R. DALTON; Mr. C. F. MAUNDER; Dr. S. D. GOSS; Mr. WILSON; Mr. W. W. REEVES; Mr. H. L. KEMP; Dr. G. ELDER; Mr. J. CHAITO; Dr. WILKS; Mr. SPENCER WELLS; Dr. HUGHLINGS JACKSON; Dr. CHOLMELEY; Dr. CLIFFORD ALLBUTT; Mr. H. SANKEY; A CONSTANT READER; Dr. PATERSON.

BOOKS RECEIVED—

Wood on Preliminary Education—Quarterly Journal of Education, No. 5—Shettle's Electricity of the Blood—Pharmaceutical Journal, No. 108—Dental Journal, Nos. 142 and 143—Edinburgh Medical Journal, No. 156—London Student, No. 3—Bible Animals, part 6—Medical Mirror, No. 54—Somerset County Pauper Lunatic Asylum Report—Holmes's Diseases of Infancy—Clarke on Bandaging and Splints—Stellweg von Carion on Diseases of the Eye—Morgan's Electro Physiology and Therapeutics—Report of the Health Officer of Bombay, 1867—Cuming on Thoracic Diseases—Inman's Preservation of Health.

NEWSPAPERS RECEIVED—

Sheffield Daily Telegraph—St. Pancras Reporter—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 30, 1868.

BIRTHS.

Births of Boys, 1018; Girls, 1021; Total, 2039.
Average of 10 corresponding weeks, 1858-67, 1872 3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	676	541	1217
Average of the ten years 1858 67	606 8	569 5	1176 3
Average corrected to increased population..	..	..	1294
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	8	8	1	10	3	4	..
North ..	618,210	7	7	11	1	14	11	7	..
Central	378,058	2	2	3	1	5	8	2	..
East ..	571,158	1	15	1	3	8	8	1	1
South ..	773,175	6	24	6	1	23	13	5	..
Total ..	2,803,989	17	56	29	7	60	43	19	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·822 in.
Mean temperature	59 2
Highest point of thermometer	76·1
Lowest point of thermometer	45 1
Mean dew-point temperature	51 6
General direction of wind	Variable.
Whole amount of rain in the week	1 38

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 30, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending May 30.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending May 30.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40 1	2039	1441	1217	76 1	45·1	59·2	1·38	139
Bristol (City) .	167487	35·7	134	75	109	..	..	..	..	..
Birmingham (Boro')	352296	45·0	268	171	125	75 5	41·2	56 7	1 11	112
Liverpool (Borough)	500676	98·0	385	290	240	74·4	45 3	56·2	0 23	23
Manchester (City) .	366845	81·8	273	208	*181	80 0	43 0	58 4	0·27	27
Salford (Borough) .	117162	22·7	87	59	56	75 2	41·7	56·2	0 34	34
Sheffield (Borough).	232362	10·2	162	122	139	73·0	45·0	56 6	0 40	40
Bradford (Borough)	108019	16 4	122	55	74	..	..	..	..	..
Leeds (Borough) .	236746	11·0	157	120	98	76·8	38 8	56·7	0·36	36
Hull (Borough) .	108269	30 4	84	50	47	75 0	42 0	56 7	0·42	42
Nwestl-on-Tyne, do.	127701	23 9	92	68	44	72·0	45·0	55 9	0 00	0
Edinburgh (City) .	177039	40·0	143	85	80	72·7	47·0	56 4	0 20	20
Glasgow (City) .	449868	88 9	382	262	249	67 6	44·6	54·4	0·63	64
Dublin (City and some suburbs) .	319985	32 8	170	157	131	71 2	40·2	55·0	0 11	11
Total of 14 large Towns . .	6391080	34·7	4498	3163	2741	80·0	38·8	56·5	0·45	45
					Week ending May 23.	Week ending May 23.				
Vienna (City) .	560000 (1863)	..	..	..	3·7 †	..	..	64·9	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·822 in. The barometrical reading increased from 29·49 in. on Sunday, May 24, to 30·10 in on Thursday, May 28.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 59 4°.

APPOINTMENTS FOR THE WEEK.

June 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

ROYAL INSTITUTION, 3 p.m. Sir J. Lubbock, "On Savages."

8. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Le Gros Clark, "On the Principles of Surgical Diagnosis especially in relation to Shock and Visceral Lesions," Lecture IV.

9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m. Royal Free Hospital, 9 a.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Mr. C. B. Wade, C.B., "On the Chinese Notation of Time." "On the Migration and History of Coffee, Tea, Cocoa, &c.," by the late Mr. John Crawfurd.

ROYAL INSTITUTION, 3 p.m. Dr. M. Foster, "On the Development of Animals."

10. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2 30 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Le Gros Clark, "On the Principles of Surgical Diagnosis especially in relation to Shock and Visceral Lesions," Lecture V.

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m. Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m. University College Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Sir John Lubbock, "On Savages."

12. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m. Prof. Le Gros Clark, "On the Principles of Surgical Diagnosis especially in relation to Shock and Visceral Lesions," Lecture VI.

ROYAL INSTITUTION, 8 p.m. Prof. Frankland, "On the Source of Light in Luminous Flames."

PARIS EXHIBITION, 1867.

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ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital

Inflammation of the Brain, including Softening and Meningitis.

The next subject we come to is inflammation of the brain. A difficulty arises at the onset as to the interpretation of the term as used by authors and by Medical men generally. It must be self-evident that inflammation of the brain cannot be treated after the simple manner of inflammation of the lungs; for in so complex an organ as the brain the symptoms must vary immensely with the part affected, as also with the cause. In other organs we make a division into the inflammation of the substance itself of the viscus and its covering — for example, pneumonia and pleuritis; but an inflammation of the membranes of the brain alone, without involving the cerebral structures, is almost impossible. Such a term is a misnomer; the symptoms, indeed, which are ascribed to it imply an implication of the brain itself. Since, however, there is an affection where the membranes seem to be especially or primarily involved, to this the general term meningitis can be applied; of this several varieties may be noticed. On the other hand, there is an inflammation of the brain proper, followed by softening and, in certain instances, by abscess. To this the term cerebritis or encephalitis can be applied. What I should have preferred would have been to take distinct pathological processes, examine them separately and the symptoms accompanying them, and subsequently discuss those cases where no distinct morbid changes have yet been discovered. As, however, we cannot ignore the terms in common use, I am forced to treat the subject in a manner different from what I should have desired.

As one of the chief results of inflammation is softening, and as this may arise under a variety of circumstances, I think it will be as well to allude to this first. Softening—or *ramollissement*, if you prefer the French term—is used in a very vague manner. Generally, when we say softening is present, we mean a chronic change has taken place in the brain substance, whereby it has become disintegrated, and its function lost. But softening, as a result of inflammation, may be acute, and be developed in a few days. Such a case we ought not to designate by the name of softening, but by that of cerebritis or encephalitis. In all acute inflammations the tissues become soft, but we should not therefore style the disease by one of its effects. We should not, for example, call pneumonia a case of softening of the lung. In the case of the brain, however, we are often compelled to speak of the result as if it were the disease itself, being altogether ignorant of the cause not only during life, but even after death, a doubt even then existing whether the softening be due to inflammation or be the result of a chronic disintegration from a change of nutrition. Then, again, besides these actual and tangible forms of softening, we are using the term in the vaguest possible sense, as applicable to a great variety of symptoms. Thus, when a person becomes a little feeble in his mind, and has some slight paralytic symptoms, we often say the patient has softening of the brain, intending only to express that some impairment has taken place in the cerebral structure, and not necessarily a change like that of softening, which is visible to the naked eye.

There are, no doubt, a large number of changes going on in the living brain whose effects are at once perceptible by some alteration in the working of the machine, expressed by some physical or mental failing, and which in any other organ would not be manifest. A slight structural change, for example, in the liver would not be apparent except perhaps by some general feeling of *malaise*, but in the brain this would at once evince itself. What these changes are, and how associated with distinct symptoms, we have yet to learn. I hear sometimes the remark made that morbid anatomy has taught us enough, and that all we want is some Medical philosopher to arise to generalise from our facts and supply us with theories; but I think I am in a position to say that our facts are meagre or scanty, and that we are only in the infancy of the science of cerebral disease.

As regards this softening—this tangible softening, with its evident symptoms—we have been in the habit of expressing the difference between a chronic softening resulting from decay or degeneration and that arising from inflammation, and styling these white and red softening. You are familiar with the terms red softening as denoting inflammatory, and white as meaning a more passive or atrophic change. If, however, red softening does result from inflammation, then it would be more desirable to at once designate it inflammation of the substance of the brain, or cerebritis, or encephalitis; but the reason, as I before said, why we cannot do this is that it is only in exceptional cases that this inflammatory process is evident as an acute and idiopathic process, and thus we are obliged to speak only of the effects. In the majority of cases the softening is chronic and associated with other disorders. If the softening be of a red colour, we call it inflammatory, the redness being due to the greater vascularity. We are influenced also in our decision by the age of the patient, and by the circumstances connected with the illness. In older persons, and especially where the arteries are diseased, as in morbus Brightii, we expect to find rather the white or non-inflammatory softening.

Suppose we make a post-mortem examination and find softening, how does it display itself? In some cases, when you make a section through the organ, you see the hemisphere presenting a peculiar appearance in the medullary matter; a certain portion, more or less circumscribed, looks and feels pulpy, resembling somewhat a piece of blanc-mange. As a rule, however, it does not look thus smooth, but is disintegrated, and thus, if a section be made, it shows a broken surface. When you pass the knife through the substance, it sticks to the knife, and if you stir it about you can make it into a pulp or paste. If merely a number of softened spots were present, these would be apparent, when you made the section, by an equivalent number of broken surfaces.

If the softening has proceeded a stage further, then the brain matter may be quite broken up, or be semi-fluid, and a portion of this running off, a depression is left. If a stream of water be allowed to trickle upon it, the brain matter may be washed away, and a distinct hole be left corresponding to the softened part. Sometimes even during life a disintegration and absorption occurs, so that, when you make a section of the hemisphere, you find a large hollow space filled with a fluid like lime-water and the *débris* of brain substance. All these cases where there is actual loss of substance come under the category of cases of white softening. They arise in connexion with diseased vessels and general decay. In the red or inflammatory softening the disintegration is not so great. Besides these two kinds, some authors have spoken of a yellow softening, which they surmise to be of a peculiar kind, and due to a chemical change going on in the fatty acids of the brain. In some of the best-marked cases, however, which I have witnessed, I have considered that the yellowness is due merely to an altered condition of the colouring matter of the blood which has been present in it.

Then again, showing how difficult it is to decide by the mere colour whether the softening is inflammatory or not, if we take the case of acute hydrocephalus or tubercular meningitis, we know that there is an inflammatory exudation into the ventricles, and that the central parts have undergone a remarkable softening; the septum lucidum and fornix and adjacent parts are broken down and diffluent, but they are perfectly white—milky white. So marked is this that those who maintain that a structure must be red to indicate inflammation would say that this central softening of acute hydrocephalus was due to a simple death or atrophy of the part, or had occurred from presence of so much fluid, which had, as it were, melted it down. Of this there is no proof, but, on the contrary, that the change is inflammatory. You no doubt might think that the microscope would positively inform us as to whether a softening was inflammatory or not, but I am sorry to say it does not do much for us in this respect; for when the cerebral structure is broken up, and a number of new products are present, it is extremely difficult to say whether inflammation has anything to do with the process or not. The microscope is extremely useful in proving the fact of softening, because, besides the broken nerve tubules, it displays a quantity of new formations, as granule masses, which, to say the least of them, are morbid. It often happens that we wish to know whether a part of the brain has undergone a morbid softening or not, and by using the microscope and finding these bodies we are sure of the fact.

Softening is most commonly localised, whether it be due to an acute or chronic cause, but occasionally we find large portions of the cerebral structures affected. In cases where

there is much disease of the blood-vessels, spots of softened tissue may be found throughout the whole brain, and in the much rarer cases of acute encephalitis, nearly the whole cerebral structure may be found to be undergoing disintegration. In cases of this kind destruction of so large a part of an important organ will of necessity very speedily bring about a fatal issue, but in instances of local inflammation and softening, life may be prolonged for many months, and ulterior changes result; one of the commonest is for the brain tissue to perish until a mere vacuity is left, containing a whitish fluid with remnants of blood-vessels. In some cases this cavity is lined by a smooth and tolerably thick membrane. Should the inflammatory process proceed to the stage of suppuration, then an abscess is formed. This may or may not be contained in a cyst. The latter, under these circumstances, is not merely a thin delicate membrane, but is a thick, firm bag, composed of tough lymph. A very important question, whether idiopathic inflammation of the brain ever ends in suppuration, you have heard discussed on other occasions—whether, indeed, a cerebral abscess does not signify either that the morbid process has been set up in the bones, or that it is pyæmic. The question has a very wide pathological signification, referring as it does to the mode in which the various tissues of the body undergo their own peculiar modification in disease. It was the question which above all was most interesting to me when I reluctantly retired from the office of demonstrator of morbid anatomy; for after an experience of many years I could not but observe that the character of the tissues was as potent in the form which the morbid product assumed, as the supposed vice in the blood or constitution. For instance, it is said that cancer and tubercle are distinct elementary productions which may arise indiscriminately throughout every part of the body. Such is a prevailing idea, but not founded in fact, as I could show you did time and place allow; and, as regards suppuration, the same opinion is held. You are by this time aware that the old doctrine of inflammation and its various stages was taught by the Professors of Surgery, who took, as a type, the inflammation of the skin or cellular tissue, in which the different processes of lymph production—suppuration and gangrene—could be visibly followed. So strongly imbued were all with this doctrine of inflammation that it was denied that some organs could be the subject of it, as, for example, there was no such disorder as gastritis, because lymph was not found on the surface of the stomach, or an abscess in its walls. We are now learning that the morbid changes take place in the cell structure of the organs and tissues, and that each of these undergoes its own necessarily peculiar alterations in disease.

My own attention had been particularly drawn to the question whether suppuration was the general result of an acute inflammatory process, and I was beginning to believe that the formation of pus was limited to particular tissues, more especially that named the areolar, and that it did not occur spontaneously in the parenchymatous organs. You know that the changes resulting from inflammation in the lung or kidney commence in the secreting cells, and you have the diseases known as pneumonia or nephritis. Now, in neither of these does suppuration occur as a final stage. If abscesses are found, the blood has been contaminated from a distant source, and it may be that the elements of the pus corpuscle have been transplanted from elsewhere. Be this as it may, abscesses in the lungs or kidney point not to an idiopathic inflammation of these organs, but to a pyæmic process which is, in fact, a secondary one.

I have made these general remarks because it will save repetition when I come to the lung; but as regards the brain there is much evidence to show that idiopathic abscess is rare in the brain, as in the organs before named. Suppuration is certainly not a usual result of encephalitis, and thus, when you find abscess in the brain, it will be the result of injury, of diseased bone, of local phlebitis in connexion with the ear, or of portal or general pyæmia. Dr. Gull made the statement from clinical observation many years ago, that cerebral abscess was rarely the result of idiopathic inflammation.

I believe, as a result of inflammation arising from injury or other cause, a lymph may be thrown out which may harden until it seems deserving of the name of tumour. I have on several occasions met with cases where it was doubtful whether we should speak of a mass of adventitious matter as inflammatory product or as a tumour.

This question opens up a very large and interesting subject, which, however, need not detain us now.

(To be continued.)

ON "OPTIC NEURITIS" AS A SYMPTOM OF DISEASE OF THE BRAIN AND SPINAL CORD.(a)

By T. CLIFFORD ALLBUTT, M.A., M.B. Cantab., F.L.S.
Physician to the Leeds General Infirmary, etc.

(Continued from page 577.)

I WILL now describe to you the kind of atrophy in which ischæmia papillaris may end. Dr. Hughlings Jackson has made popular a certain distinction between an atrophy following neuritis and an atrophy not preceded by neuritis. The former, or "consecutive atrophy," he would distinguish by the raggedness of its edges and the blurring of its outline. The other—"simple or progressive" atrophy—he would distinguish by its more brilliant appearance and by its clean-cut even rim. Though this distinction is, or has been, valuable in drawing attention to the modes of atrophy, yet I think it is only partially true.(b) The simple even atrophy often succeeds a chronic neuritic process, and, on the other hand, the ragged atrophy following acute neuritis sooner or later loses its blurred and irregular features, and settles down into the even staring state which, I think, is the end of all atrophies. The more I see of the histories of "simple white" atrophies, the more I am assured that these states are often preceded by ischæmic or neuritic processes. In tubercular meningitis, for example, I have on my notes cases illustrative of every phase of the eye symptoms. In them I find that the most violent ischæmia or neuritis, which passes into the *transition atrophy* (as I would call it)—the ragged state with swollen retinal veins and exudative patches grouped about the margins—does also ultimately settle down into the even-edged and staring form. This kind of amaurosis, which I have found so often in blind asylums and among idiots, is not a mere degeneration signifying "irritable" brain tissue or deficient development, but is a result of such causes as intra-uterine or infantile meningitis. After ischæmia, then, and after acute neuritis, the disks no doubt present distinctive features during a longer or a shorter time, according to the degree of effusion or of neuritic resistance—this is *transition atrophy*. The swollen disk recedes gradually, and the reds and grays give place to dirty white, the margins being either completely blurred, or slowly extricating themselves here and there, as if the disk had been crushed and its contents squeezed out. Streaks of exudation, which are often continuous with smudgy parts of the disk remain, though not so long, in the course of the retinal vessels. Little by little the disk clears up; it whitens and the edges become more detached, the exudation often remaining in little grey satellitic dots around it. All hæmorrhages shrivel, whiten and disappear, and the fine vessels are no longer seen on the face of the disk, though there is not the same delicate shrivelling and waning of them against the white background which we see in chronic neuritis. On the retina the arteries, which had long been diminished in size, remain small, while the dark thick tortuous veins decrease slowly. As the face of the disk clears and whitens, they diminish a great deal, though they never sink much below the normal standard. Very commonly, however, ischæmia does not result in this complete atrophy; and I have some reason to hope that neuritis does not always, though it always does mean great danger within the head (c) I have now several little patients under observation who, having suffered from meningitis with ischæmia papillaris, are passing through the peril of atrophy with good hopes of safety. The danger of meningitis to the sight has, however, been known for a great number of years. Galezowski thinks that consecutive atrophy admits of melioration and cure in perhaps one case out of every three. But these statistics are of less value, as he has not recognised the distinction between ischæmia and descending neuritis, which

(a) This lecture forms part of a course delivered at the Leeds School of Medicine by myself, Dr. Hutchinson and Mr. Hulke. I have endeavoured therein to avoid many uninteresting questions both of ophthalmic and cerebral surgery which might in some places seem to require treatment. I hope I have succeeded on the side of brevity, and I trust I may also hope in some future occasion to be able to take up in detail those which are now passed by.

(b) At present, I am disposed to think that the distinction between consecutive atrophy and primary atrophy, as it is called, is of little importance, and that the two processes are essentially the same.

(c) I differ here from Mr. Hulke's opinion.

latter is far more dangerous to vision. You will guard against confounding these modes of atrophy from—

(1) Atrophy with (great) excavation or glaucoma. This you will know by tension of the eyeball with ciliary pain, by the double border of the disk (the choroidal border and the edge of the cup), by the shadow thrown into the cup, by the curious incurvation of the vessels, by the atrophy of the neighbouring choroid, etc. In cerebral atrophy, if the cup be rather deep, it is never abrupt at the edges.

(2) Atrophy following "pigmentary retinitis." Here the mischief is mainly and firstly retinal, and the retinal vessels are diminished.

(3) Atrophy following syphilitic or other irido-choroiditis. They are attended with wide-spread retinal mischief, and do not at all resemble cerebral atrophies.

(4) Atrophy following myopia. Is seen only in extreme cases, and then with posterior staphyloma.

(5) Atrophy following albuminuric degeneration. Is distinguished by the peripapillary and retinal distribution of the mischief, by the presence of fresh or old hæmorrhages and of fatty patches; also by presence of albumen in the urine, etc. This atrophy generally follows, or always follows, extensive destruction of the retina, but I have seen some early cases where there was little more than a pæony-red tint around the disk, and some retinal hyperæmia, and these might mislead even a wary observer, unless all the symptoms were investigated.

The causes of ischæmia papillaris are all those changes within the skull (I shall omit all discussion of orbital causes) (d) which more or less directly distend the ophthalmic veins. Distensions which, in other veins or in other branches of the ophthalmic vein, would be scarcely noticeable, are, by means of the multiplying action of the sclerotic ring, made very manifest in the branches of the retinal vein, and present the appearances I have described. The three main causes of ischæmia, with the subsequent atrophy, are—1st, meningitis; 2nd, hydrocephalus; 3rd, tumours. It seldom or never results from acute or chronic softening of the cerebral substance, from hæmorrhage, or from arterial degenerations. It may occur in caries of the base of the skull, though I have not seen it: I have always seen neuritis in these cases. As, however, the causes of ischæmia may also be causes of optic neuritis, I had better now describe optic neuritis, neuro-retinitis, and perineuritis.

C. Neuritis Optici.

The main distinction between ischæmia and neuritis optici is, that while the former affection is, as I have said, confined to the disk, the latter affects the nervous trunk in a greater or less part of its length. If we exclude orbital causes, it is, like ischæmia, always due to affections of the central nervous apparatus. It is, therefore, often called *descending neuritis*. This process is one of very great interest to students of nervous diseases. In it we see the mode of inflammatory destruction of nervous tissue, and from it we may draw some valuable inferences as to the mode, the rate, and the propagation of like changes within the cerebro-spinal cavity or in the course of other nerves. You are no doubt aware, for example, that secondary neuritic changes have been found in the nerves supplying the limbs in those cases where paralysis has been followed by contraction. In descending neuritis the connective tissue of the nerve is probably the active agent, the nervous elements suffering by implication. In the eye the vascular changes are quite secondary, and in uncomplicated neuritis there is no pressure upon the cavernous sinus. In meningitis, however, neuritis optici is often complicated with, or preceded by, ischæmia, as the inflammatory change may invade both the nerve and the membranes which bound the sinus, so that it becomes choked with coagula or by the accumulation of exudative products above it. Pure neuritis is best seen, therefore, in cases of encephalitis, in which there is no inflammation of the base. It then presents the following appearance—the nerve is swollen, but much less so than in ischæmia, and it does not present that steep elevation of one side so characteristic of ischæmia. The vessels, again, are of somewhat different appearance. There is not the same bursting into view of a multitude of minute branches and capillaries which gives so mossy a look to ischæmia. The distension in neuritis is more an enlargement and tortuosity of the main trunks, though, of course, there are many more vessels to be seen than in health. As in ischæmia, the arteries become indistinct, and there may be hæmorrhages in and near the disk. The colour of the parts, again, is distinctive in well-contrasted cases. In neuritis we do not see a circumscribed intense redness or brownish-grey, but rather a wash of lilac, or a grey or sometimes even a daffodil tint, and the tint, which is more uniform and more opaque, also extends more widely upon the retina than in ischæmia, and conceals a greater length of the vessels which surround the disk. The parts often have, too, what Mr. Hutchinson calls a "woolly" appearance. Gräfe considers that this neuritis is not confined to the fibrous layer of the retina, but that all its coats are affected. He rests this belief upon the persistence of white patches, the implication of the yellow spot where the fibrous coat is not, and on microscopical researches. I have certainly seen in two cases a complete neuro-retinitis connected with cerebral disease.

D. Neuro-retinitis,

the condition which at the outset is marked by hyperæmia both of the disk and retina, and afterwards by the appearance of silvery exudations upon the retina, is an affection too well known to need any description from me at present. Of course you do not confound this condition with the retina of albuminurics. In some ophthalmic works I have been surprised to find that retinitis "is frequently the result of cerebral disease." Now, out of perhaps one thousand cases of cerebro-spinal disease, of which I have ophthalmic notes, I have found retinitis in two only. In one of these cases, the retinitis was kindly watched for me at short intervals by my friend Mr. Oglesby. C. W., aged 26, complains of failing sight. Both in herself and in her family there is a marked history of tuberculosis. Two years ago she had rheumatic fever, and had at that time much pain in the head, which has continued ever since. Seven months ago had a fit, slightly affecting the right side; has had many since, often six or seven in a week. No heart mischief. Dulness at apices of both lungs. February 4, 1868: When examined with the mirror, both disks were found slightly raised, and very pink, scarcely to be distinguished from retinas. Reads 10 Jäg. with right eye, 16 Jäg. with left eye. March 2: Position of right disk known only by convergence of vessels. Retina very hyperæmic, and silvery films are forming upon it. Left eye as before.

This girl probably suffers from meningitis, tubercular or rheumatic. I have notes of two other cases, in which there was reason to suppose that meningitis had complicated rheumatism, and in which there were remains of optic neuritis.

E. Perineuritis.

I accept this name from Galezowski as clinically useful, though there is no real distinction between it and interstitial neuritis, in which there is always more or less perineuritis. In some cases, however, probably of slow change, the inflammation seems chiefly to affect the outer neurilemma. I have seen it twice in railway accidents followed by slow meningitis. I have not had such parts under the microscope, but I conceive that we should find great proliferation around the nerve and less change in the interstitial connective tissue. Galezowski, who [illegible] has monumental patience, says:—"The papilla is prominent and enlarged, but one readily sees with the ophthalmoscope that all the exudation is confined to the margin of the papilla, the outlines of which are veiled, while the central parts are transparent and more like the normal state. The capillaries are only developed at the periphery of the papilla; the central vessels are varicose, and sometimes bordered by an exudation." He says this form is often confounded with the albuminuric neuro-retinitis, and this mistake might easily have been made in a case of scarlatinal kidney which Mr. Teale showed to me a few months ago. In the rest of his paragraph and in his pictures Galezowski is not so accurate, as he fails to distinguish between optic neuritis and ischæmia. His picture of perineuritis is more like neuritis, and his picture of neuritis is clearly from a case of ischæmia.

The *microscopical appearances of optic neuritis* are very uniform, and you may often verify them.(f) In the papilla you

(d) Mr. Salter, in the *Med. Chir. Trans.* and *Ophth. Reports*, has given some most interesting cases of amaurosis following inflammations of ear in the jaw. He asks how the atrophy is caused, and I hope that the foregoing explanation of the strangulating power of the sclerotic ring may make this clearer.

(e) I ought, I see, to have made a separate heading of "Simple Œdema of the Disks," etc. I have never seen such cases, but they are given on the excellent authority of McNamara. Vide *Med. Times and Gaz.*, May 2, 1868.

(f) All my statements on [illegible] were illustrated upon the brain or with microscopic preparations from my own cases. I may take this opportunity of expressing my great gratitude to Dr. Bastian for his excellent and [illegible] connective tissue

will find the sheath of the vessels much condensed and thickened, sclerosis, and evidences of interstitial inflammation in abundance. If you examine the sheath of the trunk, you will find it full of proliferating nuclei and young cells. In the later periods the nerve columns may be seen to have wasted. The sclerosis of the vessels of the disk, I think, will explain the comparatively little congestion in neuritis.

You now see, I hope, that it is important, if possible, to distinguish ischæmia papillæ, neuritis optici, and perineuritis, though the nature of the process in particular cases must often be very doubtful, as these conditions melt by subtle gradations one into another. I think, however, that, in cases seen throughout, ischæmia may generally be distinguished from descending neuritis. This distinction you must always make if you can.

We may now return to the causes of these changes. In *meningitis* the exudation at the base of the brain may press upon, or the inflammation may involve, the cavernous sinus, in which cases we have ischæmia only. Or the inflammation may creep down the nerve and cause neuritis optici, or may creep mainly along the sheath and cause perineuritis. Or, again, it may both interfere with the sinus, and so with the ophthalmic vein, and may likewise creep down the nerve; in such a case we should have both ischæmia and neuritis. I lately saw a case in which a little boy in a first attack of meningitis, from which he recovered, had ischæmia followed by a slight atrophic injury to the disk. Six months later he had a second attack with neuritis, and in this attack he died.(g) You now see sections of his optic nerves under the microscope. You see, then, that the occurrence of these changes is really accidental. For example, in the following case, kindly placed at my disposal by Mr. Carter, of Stroud, there was neither ischæmia nor neuritis. Mr. Carter watched the disks carefully during the progress of meningitis in a child without discovering any change. At the autopsy he says:—"There was no mischief at all about the anterior part of the base of the brain; there was tubercular deposit and inflammatory adhesion, small in quantity and slight in degree, about the cerebellar pia mater, especially between the hemispheres." Though the eye symptoms of meningitis have been now verified by many observers, I am not sure that any one has laid stress upon the fact that the mirror reveals the presence or the traces of meningitis in a large number of children, and of adults also, who survive, and in whom the disease may or may not have been suspected. Such persons who have suffered from non-fatal meningitis, either tubercular or after continued fevers, etc., may wholly recover from a state of obscure and protracted ill-health, or a want of full mental power or an uncertainty of temper may remain; or, again, the reason or the affections may be changed to the degree of insanity. In 1867 I saw a youth, R., aged about 10 years, a patient of Mr. Mann. There was no doubt of meningitis, which Mr. Mann had diagnosed by such symptoms as headache and vomiting before I saw him. I found distinct ischæmia of both papillæ. He recovered on cod oil and iodide of iron, and now has walked a mile and a half with his mother to my house on two occasions. He has been threatened with atrophy of the disks, but is, I hope, likely to escape it. He remains somewhat deficient in memory and in application. There was no descending neuritis in this case. I will tell you of another case in which the result as to vision was less happy. I mention it because Mr. Teale saw the child at the same time. G. S., aged 11, was brought to Mr. Teale on account of his eyesight. His mother "is delicate and has a cough." Patient several years ago had extensive scrofulous eczema on the head and behind the ears, and has always been weakly and liable to cough. About fourteen months ago he became even weaker than usual; his appetite fell, and he lost flesh seriously. He became also very wakeful. For about eleven months his sight has been noticed to fail, and during the same time or a little longer, he has complained of violent headache, which "throws him into rages." He has also become fanciful and irritable, and at times he is a little delirious at nights. His mind cannot be called unsound, but he is unable "to bear any schooling." We found atrophy of both nerves, due, no doubt, to descending neuritis.(h) Meningitis in adults often betrays itself to the mirror, and I cannot indeed too often assure you that ophthalmic symptoms are no curiosities, but are positively common. In my own practice there is perhaps some selection at work, for I see a large number of cerebro-spinal cases; but I believe that any Physician in Hospital practice will frequently meet with eye symptoms if he looks for them. Take the following case:—Miss ——— I saw with Mr. Hopkins. She was believed to be strongly hysterical. She showed a degree of emotional movement which much resembled "hysteria" of a maniacal kind. Mr. Hopkins, however, felt uncertain about the case, and, fearing cerebral disease, he asked me to see her. I found ischæmia of the disks to the second degree, and we also satisfied ourselves that there was some discharge from the ear, occasionally sanguineous. Subsequently she became hemiplegic and so strongly maniacal that she had to be removed to an asylum. In addition to meningitis, she probably had cerebral abscess. In two other cases of caries and meningitis from disease of the internal ear, in which I found no optic changes, the autopsies showed that the mischief had extended backwards only. In disease of the sphenoid bone, it is obvious that the eye must soon be affected. I now show you the chiasma and optic branches from such a case. The nerves are greatly thickened, and under the microscope show, as you see, extensive interstitial neuritis and perineuritis.(i) Take again this case of meningitis after fever.

John D., of Low Wortley, had typhus fever commencing November 4, 1865, and was in the Fever Hospital under me. No diagnosis of meningitis was made, but restlessness and headache remained, and some mental uncertainty. A month after convalescence sight began to fail slightly, and gradually grew worse and worse. February 17, 1866, came to Mr. Teale's clinic, being nearly blind of both eyes, and descending neuritis was seen. On March 24 the atrophy had begun, and on May 19 there was white atrophy of the third degree, and he could only see shadows. I have had several such cases in the Fever Hospital. Syphilis, again, gives rise not only to encephalic and periosteal tumours, but also to chronic meningitis.

J. K., aged 46, had long suffered from tertiary syphilis. Chronic meningitic symptoms had been present some time when I saw the patient, and the diagnosis was confirmed by the mirror. Both disks had undergone partial atrophy, and bore marks of neuritis. Chronic meningitis was found at the autopsy about the basal and parietal regions, and chiefly affecting the dura mater. Blows upon the head in railway accidents, etc., may bring on chronic meningitis, and in all such cases ophthalmoscopic examinations should be made at intervals as a matter of routine.(k) Finally, of course meningitis, like cerebritis, may be "set up" by any "foreign body," and give rise, if it affect the base, to ischæmia, to neuritis, or to both changes.

(*To be continued.*)

BIRTHS IN VIENNA DURING 1867.—During 1867 there were born 11,850 legitimate infants (6155 males, and 5695 females) and 12,152 illegitimate infants (6300 males, and 5852 females). Of this number about 9000 were contributed by the Foundling Hospital. The illegitimate births therefore exceeded the legitimate by 302, the total number of births being 24,002 (12,455 males, and 11,547 females), 22,593 belonging to the Roman Catholic faith. The twin-births were 552—viz., two boys in 176, a boy and a girl in 186, and two girls in 190. Triplets occurred three times. There were 974 children (565 males, and 409 females) born dead, 474 of the number being legitimate, and 500 illegitimate.—*Zeitschrift für gerichtliche Med.*, June 2.

(h) Though foreign to the subject, I may say that I have more than once verified loss of smell (of flowers, etc.) in meningitis, and have found both obvious and microscopic changes in the olfactory bulbs after death. I have also sections of third-nerve neuritis.

(i) In some cases of thrombosis the disease may result from phlebitis of the sinuses. I have never verified this, but the cavernous sinus has not infrequently been found to be the seat of [illegible] the internal ear.

(k) I [illegible] upon the importance of the use of the ophthalmoscope in railway and similar accidents.

ORIGINAL COMMUNICATIONS.

SOME REMARKS ON THE TREATMENT OF LARYNGEAL GROWTHS WITH THE AID OF THE LARYNGOSCOPE.

By MORELL MACKENZIE, M.D. Lond.,
Physician to the Hospital for Diseases of the Throat, Assistant-Physician to the London Hospital.

The principal growths which occur in the larynx are (1) papillary [synon. excrescences, warts, epitheliomata]; (2) fibrous; (3) cystic, mucous, and sebaceous; (4) carcinomatous. The three important symptoms are dysphonia, dyspnœa, and dysphagia. The prominence of one or other of these symptoms depends on the situation and size of the growth. Some tumours grow very slowly, not increasing in size in many years; others (not necessarily malignant) develope very rapidly (Case 12).

The ease of removal and the ultimate success of treatment depend principally upon the mode of origin of the growth. When it has a narow base and is of a pedunculated character, it is, unless very inconveniently situated, easy to remove, and not apt to return; on the other hand, broad-based tumours are, as a rule, difficult to remove entirely, and they are prone to return.

Different kinds of growths, and growths in different situations, require different kinds of instruments. Thus large polypoid tumours can be best removed by evulsion with stout ordinary forceps; smaller growths, especially in children, with the tube forceps. A solitary wart projecting from one of the vocal cords can often be most easily got rid of by incision of its base with the laryngeal lancet; and cystic tumours may be conveniently treated in a similar manner. Growths firmly attached can be best treated by crushing—*i.e.* by pinching them to such an extent as to cause subsequent atrophy. In a few cases the *écraseur* or the galvano-caustic wire may be employed.

The removal of a growth is not always followed by the immediate restoration of the voice; a congested condition of the cords often remains for a time, and thus interferes with vocalisation (Case 12). On the other hand, the voice is sometimes restored whilst a portion of the growth still remains, the part which especially interfered with vocalisation having been removed (Cases 8 and 11). There are certain cases in which the growth cannot be removed at all. This occurs where the healthy tissue passes insensibly into the morbid structure, which latter partakes more of the character of an outgrowth than of a strictly defined tumour (Case 4).

Exceedingly dense tumours of an enchondromatous character, and, of course, all malignant excrescences, belong to this category. On the other hand, chronic ulceration often tends to the formation of false excrescences—*i.e.*, irregular ragged projections of mucous membrane, the removal of which, frequently, greatly improves the voice.

Lastly, there are cases in which the growth cannot be removed by the mouth. This may be due to the large size, extensive origin, situation of the growth below the glottis, abnormal irritability of the throat, or tender age of the patient. In these cases, where there is serious dyspnœa, the growth should be removed through an opening made by a perpendicular incision through the pomum Adami, tracheotomy having been previously performed. This operation has been performed once by Mr. Holthouse, three times by Mr. Durham, and once recently by Mr. Couper on a patient of my own.

The following twelve cases have been selected from amongst others, which I hope shortly to place before the Profession, to illustrate some of the points referred to above.

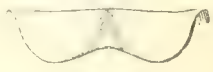
Case 1.—*Sebaceous Tumour on the Epiglottis, treated successfully with the aid of the Laryngoscope.*

Maria G., aged 44, sent to me by Mr. Gayton, of Brick-lane, February 20, 1866.

Symptoms.—Considerable difficulty in swallowing during the last six months. The laryngoscope showed a soft pyriform and apparently cystic tumour on the left side of the upper surface of the epiglottis. A few small vessels were seen ramifying on its surface. (Fig. 1.) The case was watched for some weeks, but at the end of June a free incision was made in the cyst, and a quantity of sebaceous-like matter evacuated. A probe coated with the solid nitrate of silver was then introduced for a few seconds. A week later there was no vestige of the cyst or enlarged sebaceous follicle, nor scar of the wound made in opening it. (Fig 2.)

Fig. 1.

Fig. 2.



Case 2.—*A very large Growth attached to the Right Ventricular Band, causing considerable Dyspnœa and Dysphagia and slight Hoarseness.*

Mrs. H., aged 45, sent to me by Mr. Hind, of Gravesend, April 12, 1866, with the following history:—For the last four years she had had a frequent desire to swallow her saliva, and had often experienced difficulty in swallowing her food. The voice had been, and was when I first saw her, slightly hoarse. In December, 1865, her breathing had become short, and during the winter she had had several alarming paroxysms of dyspnœa. Examination by laryngoscope showed a large mobile pedunculated growth seemingly attached to the right ventricular band. In inspiration a portion of the right vocal cord could be seen (Fig. 3), but in forced expiration the growth was pushed upwards and across the larynx, so as not only to conceal the right, but also in part to cover the left, vocal cord. (Fig. 4.) The whole of the tumour, which Dr. Andrew Clark pronounced to be of fibrous character, was removed in four sittings with ordinary forceps. This case was examined by Dr. Pratt and other gentlemen both before and after removal. The larynx is now perfectly normal (Fig. 5), and the patient has since remained quite well.

Fig. 3.

Fig. 4.

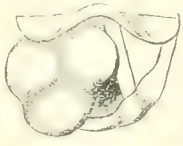


Fig. 5.

Case 3.—*Irregular Tuberculated Malignant (?) Thickening of Epiglottis not capable of Removal.*

Thomas G., aged 57, came to see me in February, 1866, at the Throat Hospital on account of dysphagia, which had been coming on for two years. The great difficulty which he experienced in swallowing was considerably diminished by inclining his head and neck to the left side.

Examination with the laryngoscope showed a large red and irregularly tuberculated tumour occupying the right half of the epiglottis; the median glosso-epiglottic ligament was also seen to be greatly thickened. The patient had an irregular sore, extending over the left side of the nose and half the left cheek. This ulcer had been present for nearly ten years, having commenced as a small wart. Mr. Erasmus Wilson pronounced the disease on the face to be cancer, an opinion which tended to confirm my belief that the laryngeal disease was malignant. I watched the patient for some months, but the tumour remained much the same as when I first saw it. The man stated that he had never had syphilis.

This case is introduced as an example of a non-defined growth which cannot be removed with the aid of the laryngoscope. Fig. 6 shows the epiglottis as it actually was, and Fig. 7 the appearance which it would have presented had the two sides been normal.

Fig. 6.

Fig. 7.

Case 4.—*Knotty Thickening of Vocal Cords, causing Aphonia, but not permitting Removal.*

Mr. B., aged 45, was brought to me June 20, 1866, by Dr. Hyde Salter.

The only symptom was hoarseness; this had been coming on for two years.

The laryngoscopic appearance is shown in the annexed cut. Fig. 8. The case is introduced here as another example of a growth which cannot be removed. These growths, or, as perhaps they might be more correctly called, outgrowths, are of an obscurely fibrous character, and between them and the subjacent mucous membrane there is an almost insensible transition of structure. The local application of caustics and strong mineral astringents is, however, [illegible] cases. Under this treatment the tumours often disappear.

[illegible] by Mr. Paget.

[illegible] papilliform growth on each vocal cord, that on the left being about a quarter of an inch from its anterior insertion, and that on the right cord being on the cartilaginous portion.

The small size of the growths rendered operative procedure very difficult, and it took forty sittings to remove the whole of them. Tube forceps were employed in this case.

[illegible] that there had been no relapse, but that Mr. M. speaks now in his natural voice.

[illegible]

Mrs. C. E., aged 46, was sent to me by the late Dr. Brinton, December 14, 1866.

Symptoms.—Loss of voice for six years, with hoarseness for five years previously. In 1862 she had been examined by Professor Czermak.

Laryngoscopic examination showed a small pedunculated growth attached to the anterior third of the left vocal cord.

On the third attempt the whole of the growth was removed. In May, 1867, the patient's voice was perfectly natural, and the larynx looked quite healthy.

I had the opportunity of showing this case, both before and after removal of the growth, to two experienced laryngoscopists, Drs. Hunn and Lockwood, of New York.

[illegible]

Base of the Wart, and Recovery of Voice.

Samuel J., aged 34, admitted under my care January 27, 1867, into the Hospital for Diseases of the Throat.

Symptoms.—Hoarseness since June, 1863. Complete loss of voice for nine months.

Examination with laryngoscope showed a small growth, scarcely bigger than a pin's head, on the centre of the free edge of the right vocal cord.

After several unsuccessful attempts, I managed, on April 10, to transfix the base of the wart with my laryngeal lancet. Two days later there was no trace of the wart, and the patient spoke in a strong but rather hoarse voice. At the beginning [illegible] ance of any recurrence of the growth.

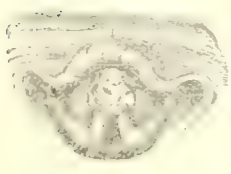
Case 8.—Aphonia of Three Years' Duration from a Growth on the Right Vocal Cord—Removal with the aid of the Laryngo-

Mr. W. H. A., aged 40, was brought to me in February, 1867, by an able laryngoscopist, Dr. Griffiths, of Swansea.

Symptoms.—Complete suppression of voice for the last three years.

Examination with the laryngoscope discovered a large highly-divided growth occupying the anterior half of the right vocal cord, and a small smooth wart on the left side of the under surface of the epiglottis. The latter was immediately removed with the tube-forceps, and the greater part of the growth on the [illegible] visit. The voice improved greatly immediately after the operation, but the patient left town a few days later, so that I do not know the ultimate result.

Fig. 9.



May 25, 1868.—Just after finishing these notes for publication, Mr. A. has called upon me with a larger growth on the epiglottis than the one I removed, and a recurrence of the excrescence on the vocal cord. The return of the disease in this case I am inclined to attribute to the fact that the patient, satisfied with the great improvement that took place, left my care before he was thoroughly cured.

Case 9.—Aphonia of Three Years' Standing—Restoration of Voice after Removal of a Growth below the Vocal Cords.

E. B. B., a young woman, aged 30, came under my care in May, 1867, at the Hospital for Diseases of the Throat.

Symptoms.—Loss of voice for three years and a constant laryngeal cough.

Examination with the laryngoscope showed a large growth beneath the anterior insertion of the vocal cords.

It was only after six months of constant perseverance that this growth was removed. During the progress of the case I had several times the opportunity of showing her to Dr. Peléchin, of St. Petersburg.

Case 10.—Dysphonia of Several Years' Duration [illegible] and beneath the Left Vocal Cord—Partial Removal—Crushing Operation—Restoration of Voice.

W. W. R., aged 17, was sent to me December 27, 1867, by Dr. Johnston, of Barnstaple.

Symptoms.—Dysphonia since he was 3½ years old. Complete aphonia for two years.

On *examination* with the laryngoscope, a large growth was discovered attached to the anterior half of the left vocal cord. In forced expiration this growth almost entirely filled the opening of the glottis. There was also a small wart on the under surface of the right side of the epiglottis, as in Case 8.

The small wart on the epiglottis and the greater part of that on the vocal cord were easily removed with ordinary forceps. When this large portion was removed, it was seen that the latter growth had an extensive origin below the vocal cord. It was only after repeatedly unsuccessful attempts at removal that I determined to crush it. After the operation the growth completely withered away, and the patient left London cured on April 9, 1868.

Case 11.—Aphonia of a Year's Duration from a Growth on the Right Vocal Cord—Removal with the aid of the Laryngoscope—Voice Restored.

Mrs. H., aged 31, sent to me by Mr. Harston, of Islington, February 5, 1868, with the above symptoms. *Examination* with the laryngoscope showed a large excrescence on the right vocal cord. The throat being rather irritable, some difficulty was experienced in operating, but the whole of the growth, except a very small portion at its base, was removed, and the voice restored in about a month. A small portion of the growth still remaining in this case, there is a probability of a return of the symptoms.

Case 12.—Large Growth attached to the Anterior Insertion of the Vocal Cords—Removal with the aid of the Laryngoscope.

Master Sydney D., aged 10, sent to me in February, 1868, by Mr. Graves, of Gloucester.

Symptoms.—Hoarseness of six months' standing, aphonia for a few weeks, and slight dyspnœa.

[illegible] by the laryngoscope showed a large white cauliflower-like growth, five-eighths of an inch in length and half an inch broad. The boy was extremely nervous, so that at first nothing could be done. Two unsuccessful attempts to remove the growth under chloroform were made. After a time, however, he lost his fear, and the whole of the growth was removed. The voice nevertheless remained for several days completely suppressed. This was probably owing to a little roughness and congestion of the vocal cords. The boy's voice is now clear, but rather harsh, and I have no doubt that it will soon be perfctly normal.

Remarks.—This case is interesting on several accounts—first, as showing how extremely rapid may be the growth of these small tumours; secondly, how much training is required in young or nervous patients before operative interference is likely to be successful; and, thirdly, as illustrating the importance of not predicting any immediate restoration of the voice after removal of growths.

13, Weymouth-street, Portland-place.

ON THE INFLUENCE OF A DIGESTIVE HABIT IN THE PRODUCTION OF TUBERCULOSIS,

AND THE INDICATIONS FOR TREATMENT DRAWN THEREFROM.

By DAVID J. BRAKENRIDGE, M.D., F.R.C.P., L.R.C.S. Edin.

Notwithstanding the great advance that has of late years been made in our knowledge of tuberculosis, it is difficult to connect into one consistent whole the opinions entertained regarding the origin, nature, and treatment of this malady. The Profession in this country is much indebted to Dr. J. Hughes Bennett for those views regarding the essential nature of the disease which he has so perseveringly and successfully urged upon its attention. They are much strengthened by the great success of that treatment which he has founded upon them, and many authorities are now amongst the number of those who believe that the immediate cause of tuberculosis is a deficiency in the chyle of those oily matters which, together with albumen, are essential to the formation of a true nutritive blastema. Most Physicians, if they do not go so far, are at least of opinion that deficiency of fats is, in some manner or other, at the root of this condition, and that in the means of supplying that deficiency lies their hope of its successful treatment. In the great majority of cases there is a marked dislike of, and want of power to digest, fats, and every effort is made by tonics and other means to overcome this dislike; too often in vain, or with only partial success. Fortunately, in cod-liver oil and the pancreatic emulsion we have this important constituent of food in forms which are easily digested; so that a certain number of patients who have lost the power of ordinary fat-digestion, being able to digest these simple forms, are checked in their downward progress, and have, perhaps, the full power to elaborate the higher fats ultimately restored. But even with these powerful remedies in our hands, the cases in which our oils disagree are not unfrequent, and the numbers still carried off annually by this scourge are very great.

In the following remarks I shall endeavour to show that by teaching our patients to flee the winter's cold and court a perpetual summer we are refusing to them the best tonic to fat digestion which nature's generous pharmacopœia offers to our choice, and that, with our cod-liver oil and pancreatic emulsion in our hands, we ought rather to give them the benefit of a continued, but not too severe, winter temperature. Thus we might hope to restore the lost function and re-establish the normal and habitual digestion of oils. Several observing Physicians mention, almost with surprise, that many of their patients in the earlier stages of the disease have seemed to derive benefit from a low temperature and to suffer during summer heat. It would be more surprising were the reverse true, for warmth, lessening the oxidation of, and consequent demand for, fats, hastens the establishment of that morbid refusal of them on the part of the digestive organs on which the disease depends; whereas, on the other hand, a cold temperature, by increasing the combustion of fat, gradually rouses the digestive organs to an effort to meet the extra demand. It is in this direction only that we can hope to correct this morbid digestive habit and restore the normal function.

Without entering into the whole subject of tuberculosis, I shall endeavour under the following heads to explain my views more particularly:—

1. The digestion and non-digestion of different kinds of food may and do become habitual.

2. The condition of body favouring the development of tuberculosis is a habit of non-digestion of fat.

3. The causes of this habit are such conditions as diminish the consumption of, and consequent demand for fat in the system—*e.g.*, warmth, impure air, want of exercise, etc.

4. In the treatment of this condition the indications are to break this habit, and to restore the lost power of digestion of oils.

5. This will be best done by supplying in increased force what we find to be the chief stimulants to the digestion of fat—*e.g.*, cold, pure air, exercise, etc.—and by avoiding all that would tend to confirm the bad habit.

6. Summer is therefore more to be dreaded than winter in the tubercular diathesis, and safety to be sought rather in choosing a cool bracing climate in the former season, than in the opposite and usual course.

1. *The digestion and non-digestion of different kinds of food may and do become habitual.*—Habit is, according to Dr. Johnson, "a power or ability of doing anything acquired by frequent doing the same thing," and, as no acts are performed more regularly than those of digestion, it does not seem unreasonable to extend the application of the law of habit to them. The nervous centres presiding over the process of digestion must, like other nervous centres, become educated by being repeatedly exercised in certain directions, and such powers as are the result of this process of education by frequent repetition, we are justified in calling habits. But it is not to the nervous centres alone that we must look for an explanation of these. As the different constituents of our food are operated upon by the secretions of different organs, the functional activity of those which have been most used in digestion will be greatest. Hence, most gastric juice will be secreted by the hunting tribes who consume large quantities of flesh; most saliva by the inhabitants of warm countries, a great proportion of whose food is starch; and most bile and pancreatic juice by the fat-digesters of the Arctic regions. These considerations taken together explain what we here mean by habit. We shall find that these habits are governed by every variety of circumstance. In no two places, perhaps in no two individuals, are they exactly alike; but the most striking differences are to be met with in those who live under the most opposite conditions. Each nation has a dietary, more or less peculiarly its own, originating in the demands set up in the system by permanent surrounding agencies, and modified from period to period by the customs of the people and the alimentary resources of the country. The food of each country is preferred and most easily digested by its own inhabitants; on the other hand, disturbance of the digestive organs is usually the result of a change of country and diet. This holds true with regard to comparatively slight as well as to great changes. For illustrations of great difference in diet let us take the two following:—We have the Esquimaux habitually consuming large quantities of fat, and showing a great dislike for starchy food—a typical digester of fats and non-digester of starch; and, on the other hand, we have the Hindoo living on rice and avoiding the rich hydrocarbons—an habitual non-digester of fats and digester of starch. In these, as in all other cases, we see that the desire for, and digestion of, different kinds of food are evidently regulated by surrounding agencies, operating through their influence on the chemical changes taking place in the body. But this is not all; for when a particular dietary has been called for and kept up for a considerable time, the functions of the digestive organs become so adapted to it, that, when the conditions giving rise to the necessity for it no longer exist, it continues to be desired and digested. Cases will occur to every one in which Esquimaux or Russians, etc., on going to a warmer climate, have continued to consume and digest unnecessarily large quantities of fatty substances, and have thus suffered greatly from the heat; and we have, on the other hand, the experience of our Arctic explorers, showing that many months have elapsed before such food as seal's liver and walrus blubber have become desirable, although they were from the first, as much as ever, demanded by the severity of the climate. The bilious attacks of Europeans on first visiting the tropics result from the still unbroken habit of fat-digestion; and the phthisis from which negroes and monkeys suffer on going to a colder climate, is attributable to their habitual non-digestion of fat. Most national digestive habits are probably the result of special conditions operating for generations, and consequently, where the change is extreme, acclimatisation has been pronounced impossible, so difficult is it to break these habits. Individual habits, which are of shorter duration, may be more successfully combated. Hence the stubbornness of hereditary disease compared with the same when acquired.

(To be continued.)

A Lady Anatomist.—On June 4, 1761, a Mademoiselle Biberon, a maker of anatomical preparations at Paris, received from the King of Denmark a valuable present. She had the lucky idea of sending to that monarch a heart so divided as to exhibit its internal structure, the thoracic duct with the receptaculum, the organs of generation, an elastic uterus fitting to teach the practice of accouchements, a male and female bladder, a cæcum with its valve, a kidney, a liver, an ear, and an eye.—*Union Méd.* No. 66.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

SEQUEL TO A CASE OF SYPHILITIC PARALYSIS—DEATH—AUTOPSY.

(Under the care of Dr RAMSKILL.)

THE patient whose case we briefly recorded May 23, died June 7, 1868. There is little of importance to add to that record. From this time he became gradually worse, and mostly passed his motions and urine in bed. A few days before his death it was observed that he did not move his left arm and leg, but could move them a little when they were pinched. For these facts we are indebted to Mr. George Mackenzie.

As had been diagnosed by Dr. Ramskill from the first, the cause of the patient's symptoms was clearly syphilis. There were in the hemispheres, or, rather, in the pia mater over them, one or two small nodules, of a yellowish colour and tough consistence. But the chief disease was at the base, and it spread along the fissures, and especially in the Sylvian fissures. The arteries in the interpeduncular space were also involved. The sixth nerve was the only one of the paralysed nerves which was at its origin imbedded in the "deposit." The third nerves were apparently equally entangled in the thickened pia mater which occupied the space in which they ran. The fifth nerve at its origin seemed normal, but its ganglion was diseased. The seventh nerve was at its origin normal, but the track was not followed into the petrous bone. Lying over the outer side of the brain and covering the hinder part of the third left frontal convolutions among other parts, there was a fibrous patch loosely adherent to the pia mater, and the brain beneath was quite free. This was whiter, tougher, and much more fibrous-looking than any of the "deposits" elsewhere.

The large branches of the middle cerebral arteries were not blocked, although their coats were greatly diseased, the vessels being nodose here and there. *Both* corpora striata were very much softened, and this is noteworthy, as palsy of but one—the left—side of the body had been observed during life. However, the right corpus striatum was the one most softened.

The liver contained one large and several smaller tough nodules of a dull yellow colour. The large mass was in the left lobe, near the porta.

Nothing of importance was found in the other organs, but the larynx, unfortunately, was not examined.

UNIVERSITY COLLEGE HOSPITAL.

LATERAL LITHOTOMY—REMOVAL OF A LARGE STONE FROM A PATIENT THE SUBJECT OF PULMONARY PHTHISIS.

(Under the care of Mr. MARSHALL.)

A MAN, aged 24, who had suffered from symptoms of stone in the bladder for nearly ten years, was admitted into University College Hospital, under the care of Mr. Marshall. He had been an out-patient at one of the Metropolitan Hospitals, but no stone had been detected, and he was considered to be suffering from incurable bladder disease, and was therefore sent to the workhouse. On examination the patient was found to be extremely emaciated, with consolidation of the apices of both lungs, and some albumen in his urine. A stone was detected in his bladder, and it was considered desirable to perform lithotomy at once, and not to attempt any palliative treatment. On June 4 Mr. Marshall performed the lateral operation, and reached the bladder without difficulty; the ordinary-sized lithotomy forceps were found to be somewhat too large, the blades pushing the edges of the incision before them; on using a smaller pair, however, the stone was readily extracted. It proved to be a largish one, measuring two inches long by one and a half broad, very heavy; surface mammillated, and appearing to consist mainly of uric acid. But little blood was lost at the operation, and the patient has been progressing favourably.

CHRONIC SYNOVIAL DISEASE OF THE KNEE-JOINT—AMPUTATION—TORSION OF THE VESSELS.

(Under the care of Mr. CHRISTOPHER HEATH.)

A young woman, aged 18 years, in fair general health, was admitted, under the care of Mr. Heath, for chronic disease of the synovial membrane of the knee-joint. Excision had been proposed; but Mr. Heath, after consultation with his colleagues, determined to amputate, considering that the results of excision have not proved favourable in this class of cases. A semicircular flap was raised from the front of the knee-joint, and carefully dissected from the patella. The knife was then carried through the joint above the patella, dividing the structures in the popliteal space by a straight incision. The projecting condyles of the femur were then sawn off, and the vessels secured by torsion. A solution of chloride of zinc (twenty grains to the fluid ounce) was then applied over the stump, and a few points of wire suture inserted. On opening the joint, a quantity of pus escaped, and very extensive erosion of the cartilages was found to be present. In sawing off the condyles, the medullary canal was unintentionally laid open in consequence of its descending to a much lower level than is usually the case. Mr. Heath employed torsion as follows:—For the larger arteries, two forceps were employed, one to hold the artery, and the other to twist it; whilst for the smaller vessels one forceps was found to be sufficient. The ends were in all cases twisted off.

METROPOLITAN FREE HOSPITAL.

CASES BEARING ON THE QUESTION WHETHER PATERNAL SYPHILIS IS TRANSMITTED TO THE OFFSPRING, WHEN THE MOTHER HAS NOT BEEN FIRST INFECTED.

(Communicated by Dr. C. DRYSDALE.)

Case 1.—April 7, 1868, Mrs. P. was sent to see Dr. Drysdale for her infant John P., aged 6 weeks. The child had an eruption on the face of copper colour, or rather "café au lait" colour, dry in character in some parts, but in others there are marks of bullæ which have dried up and left a small scab. One or two bullæ of pemphigus on the soles of the feet. The child snuffles, and has also a few cracks at the sides of the mouth. It does not take the breast well. By no means emaciated. Prognosis hopeful. To take two grains of chlorate of potash three times a day in mint water, and to be kept scrupulously clean; also not to be fed in any way, save by the breast.

The mother, Mrs. P., is a very strong healthy-looking woman, aged 24. Does not, indeed, remember ever to have had any sickness worth mentioning. She has been married four years, and remembers well that her husband was out of health when she married. He suffered from eruptions and also from sore throat and falling of the hair. Mrs. P. had an infant at nine months after marriage, which had similar appearances to those exhibited by her present child, and, although treated by powders for some time, died when about six weeks old. The second child she had was born a year after the death of the first, and was putrid, and had been dead, the Doctor said, for some time. The third child (the patient) was born without any spots, but has had them now upon it for some week or two. There are on the feet little bladders filled with fluid, which burst, and leave a crust after them.

Notwithstanding the gestation of these three infected children, the mother, by her own account, has not exhibited any symptoms which will bear the interpretation of having been syphilitic. She has always been in good health since her marriage, with the exception of having recently suffered from leucorrhœa for three weeks. She denies having suffered from sore-throat, from falling of the hair, or from any species of eruption or cachexia. Her husband is, she says, delicate in health.

Note.—Although M. Cullerier has made the categorical assertion, which has also been made by M. Simonet, of Paris, and also by Dr. Owry, of Christiania, that the father has no power to infect the offspring unless he first infect the mother, Dr. Drysdale has found that, as in the above case, the views of Mr. Hutchinson, which are the contradictory of this assertion, are more true to his experience. It is needless, he believes, to assert that the mother of the above patient had been infected, since no proof of the fact existed, and "de non apparentibus et de non existentibus eadem est ratio." In

most cases, however, the mother certainly has exhibited some symptoms of syphilitic infection, and Dr. Drysdale thinks that women, when syphilitic, are far more liable to have syphilitic children than when the father alone is so without infecting the mother.

Case 2 refers to a syphilitic infant, G. D., seen May 17, 1862, at the Farringdon Dispensary, aged eleven weeks at that date. Eruption over the body and buttocks; snuffles; fissures around mouth and anus. Mucous tubercle at anus; suckles freely, but is wasting. The child's father is in delicate health, is dissipated and "gay." The mother of the patient has had three children before this, born at full time. The first lived six weeks, the second two hours, and the third four weeks. The first and third had eruptions and snuffles. Treatment: To take a teaspoonful thrice a day of the following mixture:—Chlorate of potash 3j., water Oj., and to be kept scrupulously clean.

Notwithstanding that the mother had thus given birth to no less than four infected children, one after the other, she had not in any way, according to her statement, exhibited any symptoms which could with any probability be looked upon as syphilitic. She had not suffered from eruptions, nor falling of the air, nor any sore-throat. In fact, she had always enjoyed good health during her married life.

The sequel to this case is interesting. The child, G. D., recovered, and was seen several times subsequently by Dr. Drysdale. In January, 1868, the child, now 6½ years old, was well, and did not exhibit any peculiar marks of having been syphilitic. The mother also had another child, now aged three years, which was in good health.

Note.—It would, in Dr. Drysdale's opinion, again be inadmissible to assert that the mother above mentioned had been infected, when she never had exhibited any symptoms, unless, indeed, the giving birth to a syphilitic child was considered a symptom, which, of course, begs the question.

Case 3.—Dominic de M., seen May, 1866, aged six weeks, covered from head to foot with a formidable syphilitic eruption, rupial in character, on the face, snuffles, and emaciated to a great degree. Died in a week. Its mother was in perfect health. Had been married three years. The father, a musician, was in Paris at the time of this child's illness, and had suffered from eruptions, etc. Mother had had one child stillborn before this patient, but she had not had either sore-throat, falling of the hair, or any eruptions.

Note.—These three cases, which, however, he believes to be not the rule, but greatly the exception, show that the fœtus in many cases does not infect the mother; and this, in Dr. Drysdale's opinion, is the reason why there are comparatively so few cases of infantile syphilis seen, although such a large number of the male sex have suffered from syphilis—*i.e.*, from eruptions and other symptoms of virulent infection. When the mother unfortunately becomes infected, she frequently, although by no means always, has a series of dead children or infected children; but usually when the father is infected and does not marry for two or three years, he will escape from the sad privilege of engendering syphilitic offspring, although in some cases he may himself become epileptic, or have tertiary affections.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(*Continued from page 579.*)

Case 107.—*Non-adherent Cyst—Never Tapped—Ovariotomy—Recovery.*

An unmarried dressmaker, 22 years old, was sent to Mr. Wells by Dr. Acland, of Oxford, and admitted December 31, 1867. The abdomen was filled by a large ovarian cyst, which pressed the fundus uteri downwards and forwards. Increase of the abdomen had been noticed since May, 1865; but after an attack of scarlatina in October, 1864, she had never felt quite well, being frequently sick, and suffering much pain in the back. Though previously irregular and painful, the menstrual periods had been quite regular and painless since September, 1866. The last period ceased December 26. Ovariotomy was performed January 2, 1868. A mixture of one part of chloroform and two parts of ether was administered by Dr. Junker. The patient was sick during the inhalation, and was semi-conscious, but felt no pain. A non-adherent cyst was exposed by an incision four inches long, tapped, emptied, and easily drawn out. A broad pedicle was secured in a large clamp between two and three inches from the left side of the uterus. Scarcely any blood was lost, and no ovarian fluid entered the peritoneal cavity. The right ovary, though rather large, was healthy. Twenty-five pints of fluid were removed, and the emptied cyst weighed a pound and a half. There was some retching on recovering from the anæsthesia, but the progress was most satisfactory. The clamp was removed on the sixth day with the last of the stitches. The bowels acted on the ninth day. The patient went to Oxford twenty-six days after operation, and has since been heard of as quite strong.

Case 108.—*Non-adherent Cyst—Never Tapped—Ovariotomy—Death on the Fifth Day.*

A married woman, 48 years of age, was sent to Mr. Wells by Dr. Arthur Farre in November, 1867, suffering from a large multilocular ovarian cyst. The case was considered to be a favourable one for ovariotomy; but as the discomfort was not very great, the patient was advised to wait until the necessity for submitting to operation became more manifest. Increase went on, and she was admitted January 6, 1868. Ovariotomy was performed two days afterwards. Chloromethyl was given by Dr. Junker. A non-adherent cyst was exposed by an incision four inches long. The cyst was tapped, emptied, and easily drawn out. There was no pedicle, the cyst having a broad connexion, by means of the Fallopian tube, broad ligament, and utero-ovarian ligament, with the left side of a large uterus. The neck of the cyst was secured in Dr. Hicks's cautery clamp, and separation was effected by the actual cautery. On opening the clamp three vessels bled and required ligatures. The ends of the ligatures were cut off short, and allowed to sink into the pelvis with the seared edges of the cyst. Scarcely any blood was lost. Fourteen pints of fluid were removed. The empty cyst scarcely weighed half a pound. Pain and vomiting came on soon after the operation, and continued during the next day, but without much rise in temperature or pulse. On the second day the pulse rose to 130 and the temperature to 101·8°, vomiting of large quantities of fluid continuing, and the urine becoming scanty and concentrated. On the third day there was no change. Flatus passed after the insertion of a long rectal tube, but large quantities of clear fluid were frequently vomited. Sulpho-carbolate of soda was given by injection frequently; it was not retained when taken by the mouth. On the fourth day there was less sickness, and the urine was more abundant. The temperature fell to 101·2°, but the pulse remained at 140, with respirations only 20. On the fifth day the signs of coagulation of fibrine on the right side of the heart became unmistakable. Deep inspirations, 16 in the minute; a feeble pulse, 150 to 160; first muffling, and then disappearance of the first sound of the heart, while the second sound remained distinct; and, for a time, presence of the first sound to the left, while it was absent to the right, the second sound being audible in both situations. Then the patient became cyanotic and comatose, and died on the afternoon of the fifth day after operation. No post-mortem examination could be made.

Mr. Wells looked upon the case from the first as one of septic peritonitis or septicæmia, and expressed his surprise that some such condition is not more frequently observed when any of the *intra*-peritoneal methods of dealing with the pedicle, whether from necessity or choice, are resorted to.

Case 109.—*Non-adherent Cyst—Five Tappings—Ovariotomy—Recovery.*

An unmarried dressmaker, 34 years old, sent by Dr. World, of the City-road, was admitted January 9, 1868, suffering from an ovarian tumour which had existed seven or eight years, and had been tapped five times. The first tapping was in January, 1864, twenty-four pints of clear fluid being removed. The second tapping was not required till November, 1866; the third, fourth, and fifth were in March, July, and September, 1867, about the same quantity of fluid being removed at each tapping. On admission, she was larger than she had been before either tapping, and ovariotomy was fixed for January 14. But menstruation commenced on the 12th and continued till the 16th. The operation was performed on the 22nd. Chloromethyl was given by Dr. Junker. By an incision five inches long, a non-adherent cyst was exposed, emptied by tapping, and drawn out with a large mass of secondary cysts. A broad thin pedicle on the left side was secured in a small clamp, and kept out without any pull on the uterus, though the broad

ligament was kept rather tense. The right ovary was twice the usual size, but otherwise healthy. Twenty-one pints of fluid were measured, and the unemptied mass of cysts weighed four pounds and a quarter. There was no sickness in this case. An occasional opiate was required during the first three days. On the third day metrostaxis came on, and the temperature fell from 102·8° to 100·8°. On the fourth day the clamp and stitches were removed, and metrostaxis ceased. On the sixth day it returned, and ceased on the seventh. On the ninth day there was free bleeding from a vessel exposed after separation of a portion of sloughy tissue on the surface of the pedicle. It was stopped by the application of perchloride of iron, and the bowels acted. On the twelfth and two subsequent days there was a return of bleeding from the surface of the pedicle. It was stopped on each occasion without ligature by applying perchloride of iron. Probably more than a pint of blood was lost, and metrostaxis also went on. Yet the patient, though weak and much emaciated before the operation, did not seem at all the worse for the loss of blood, went to the country twenty-four days after operation, and has been seen since in excellent health.

Case 110.— [illegible]

A married woman, 32 years old, mother of four children, sent from Ryde by Dr. Turner, was admitted January 18, 1868. She was in an extremely feeble emaciated condition, both legs were œdematous, and the abdomen was greatly enlarged by an ovarian tumour which encroached upon the thorax. The girth at the umbilical level was forty-eight inches. From sternum to pubes the distance was twenty-six inches, and from one ilium to the other across the front of the abdomen thirty-one inches. A little ascitic fluid was detected, causing some protrusion of the umbilicus. The tumour was felt in front of the uterus, pushing it backwards. But the size of the uterus was normal, and its mobility was not much restricted. The catamenia had been regular till October, 1867, but had not recurred since. The youngest child was two years and a half old. She had remained well more than a year after the birth, and the tumour appeared to have grown to its large size in about sixteen months. Owing to the feeble condition of the patient, the ascites and anasarca, and the large size of the tumour, the case was regarded as a very unfavourable one for ovariotomy. But, as nothing could be gained by tapping, there was no other resource, and the operation was performed January 29, 1868. Chloromethyl was administered by Dr. Junker. An incision was carried from one inch below the umbilicus downwards to the extent of seven inches. Some ascitic fluid escaped, and a few slight parietal adhesions were separated. Then a cyst was tapped, and some thick fluid evacuated. But there was no large cyst. Mr. Wells accordingly opened the tumour, passed his hand within it, and broke it up, pressing out the viscid contents and gradually withdrawing it, separating, as he did so, a large piece of adhering omentum which contained many very large veins. These were temporarily secured by two clamps, and a long band of adhesion on the left side simulating a pedicle was secured in another clamp and divided. The true pedicle was on the right side, and was secured in a small clamp, which was fixed outside without any traction. The pelvis was sponged carefully, a few clots and some ascitic fluid being thus removed. Then, after removing the clamps from the omentum, several ligatures were applied to bleeding vessels, and were returned with the omentum after the ends of the ligatures had been cut off short. The clamp on the left side was also removed, as the supposed second pedicle proved to be only a portion of the cyst adherent to the abdominal wall far back. This portion of the cyst was carefully separated. The left ovary was healthy. Twenty-seven pints of fluid were collected, and the portion of tumour removed [illegible] pounds 14 ounces, total 16 pounds.

Only two drachms and a half of chloromethyl were used during this operation. The patient was sick during its administration, but not afterwards. There was very little pain, only one opiate being required two hours after operation, and a second next day. There was profuse perspiration, free secretion of urine, and the œdema of the legs rapidly disappeared. But the pulse was excessively rapid, rising to 150 before night. Wine and brandy were given, and beef-tea by enema. On the day after operation the pulse fell to 130 in the morning and 114 at night, and on the second day to 96. On the third and fourth days the pulse rose to 112, and there was some irritation of the bladder, the urine being ammoniacal, and depositing much ropy mucus. The bowels acted on the fourth day. On the fifth day all the stitches were removed, and the clamp on the seventh day. Twenty-six days after operation the patient went to Brentwood, and remained under Mr. Earle's care there for three weeks in a cottage which a beneficent lady has, with true charity, fitted up at her own expense for two convalescent patients. She came back looking quite strong, and has been heard of since her return to Ryde as in excellent health.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, JUNE 13, 1868.

THE CARMICHAEL PRIZES.

We print in another column a letter in which the authorities of one of the most respected Medical corporations are accused of something very like corruption in the award of the quadrennial prizes instituted by the late Mr. Carmichael for essays on the state of the Medical Profession and the means of improving it. The circumstances which give a corrupt air to the proceedings are, that the prize was awarded to a member of that body to which was entrusted the duty of adjudication, and that the adjudicators did not give full publicity to the fact that they intended to double the prizes—to raise them from £200 and £100 to £400 and £200 respectively, by adding to them the amount of previous premiums which had lapsed for want of worthy competitors; to which must be added the allegation that they were not compelled to give the accumulations to the successful competitors, but that they voluntarily gave this additional premium to one of their own body, Dr. Mapother, who ought not to have been a candidate.

It is to be regretted that the Council of the Royal College of Surgeons of Ireland have allowed themselves to be put into a false position, although we fully believe that their honour and integrity will be seen to be unblemished when the minute details of the transaction are known.

We understand that the adjudication was made by three Members of Council selected by ballot from amongst the entire number, and in making this selection Dr. Mapother took no part either directly or indirectly, having, in fact, as we are informed, left the room when the Council proceeded to ballot for the judges. That the judges selected the best essay cannot be doubted. As to increasing the amount of the prize, we are informed that this whole matter is still undecided. It is not known, without legal interpretation, whether the clause in the will relating thereto is permissive or compulsory.(a) We

(a) The following is a copy of the clause in the will:—"Should the [illegible] essays worthy of the reward, they are hereby directed to [illegible] the prize of [illegible] and the remainder [illegible] the best Medical essay on the subject [illegible] shall be awarded the reward [illegible] essay may also be awarded [illegible] for the best, and £[illegible] for the second best."

learn further that the Council entertain no such intention, nor will they do so unless driven to it by legal measures, when of course they will have no option. There can be no doubt but that the general wish in Dublin is that Dr. Mapother, whose industry and ability are too well established to stand in need of *laureation*, had left the prize to be contended for by lesser men.

THE PROVISIONING OF PARIS.

The number of the *Revue des Deux Mondes* for May 15 contains an article from the pen of M. Maxime du Camp, on "L'Alimentation de Paris," which supplies several facts that may be of interest to our readers. In some introductory observations he gives an account of the complicated legislation which, prior to the French Revolution, regulated and hampered the traffic in articles of food in different parts of France, keeping the peasantry, oppressed by inordinate taxation and restrictions of all kinds, on the very verge of famine. Indeed, famines were of frequent occurrence. Long after that great event, "the mania for regulating, which is a disease essentially French," continued to paralyse individual efforts, and to complicate the administrative wheelwork. It is only quite recently that sounder economical and commercial views have begun to prevail. One good police axiom has, however, always been endeavoured to be carried out—that "all that enters the human body shall be wholesome and loyal;" and to this end a great number of inspectors are employed, whose supervision extends over all markets, shops, cabarets, stalls, hawker's baskets, etc., and who are invested with the power of seizing all damaged and adulterated articles, whether of food or drink.

The general supply of food for Paris is transacted in eight *halles* or wholesale markets, fifty-seven ordinary retail markets, one central cattle market, and four abattoirs—these seventy establishments employing about 30,000 persons, who are all under the management of the *Préfecture de Police* as regards their trades and functions. To administer this important department 275 *employés* are required, all being under the surveillance of an inspector-general and his assistant, having several sub-inspectors, so that even the minutest details of the markets are thoroughly looked after. The building and maintenance of markets, and the receiving the dues or *octroi*, are in the hands of the *Préfecture de la Seine;* and, in order to encourage a resort to the markets, a difference is made in the *octroi*, according as it is paid at the barriers or in the market. For example, a pheasant of a mean value of 5 fr., addressed to a shop or a private person, pays a fixed price of 1½fr., while sold by auction in the market it will pay 10 per cent. upon its price, therefore, half a franc. The rapid increase in the price of provisions is, however, tending to render the difference illusory. The *octroi* dues received in the *halles* in 1867 produced 5,850,700 fr., the rents of stalls in the markets 2,433,110 fr, and the rents of other markets that are sublet 489,185 fr., giving a total of 8,772,995 fr.—a trifling product (although it has doubled within eight years) compared to the immense expenses incurred by the *préfecture de la Seine* in building and managing the markets. The railway companies, it is stated, have taken the most liberal and even benevolent view of their functions as suppliers of the Paris markets, repeatedly lowering their tariffs, and continually bringing more distant provinces into ready communication with the capital. In the present paper M. du Camp treats of the supplies of bread, meat, and wine.

1. *Bread.*—In all the statistical statements the *octroi* insures a certainty as to the real amounts of food bought and sold in France, which can only be guessed at in our own country. During 1867 there were brought into Paris 9,398,348 kilos (a kilo being 2 lb. 3 oz. 4 dr. avoird.) of corn, and 221,508,557 kilos of flour. There are only two or three insignificant flour-mills in Paris itself, the regular supply of flour being furnished by about 600 millers residing in 36 départments. The three flours principally employed are those of Beauce, Brie, and Picardy, which, though of equal nutritive value, have different shades of colour, from exceedingly white to reddish. The mixture of these, which is performed by the bakers themselves, constitutes the Paris bread. The trade of the baker was kept for many years under the severest and most oppressive restrictions, and it does not even now enjoy full liberty. When bread reaches a certain price the municipal authorities have still the right of interference and adjustment. The municipality, in order to insure the poorer classes a cheaper article, allows to be sold in the markets the bread made at the municipal bakery for the Hospitals and prisons. Although in this case the intention is good, it is a bad principle for the State to become shopkeeper, and one that may easily lead to a monopoly. Here, however, there is no danger of this; for although this bread of second quality is very good, the Parisian population will not eat it; for of the 277,802,879 kilos of bread sold in 1867, only 2,085,971 kilos consisted of seconds. There are 1201 bakers' shops with ovens in Paris, besides 526 depôts for the sale of bread. Moreover, bread may be sent from the country on payment of only 1 centime per kilo, and some of the bread of the environs, as the *pain de Genosse*, is famous. Still, of the 277,802,879 kilos sold in 1867, only 2,544,364 kilos came from beyond the barriers. It is calculated that in 1867 the daily consumption of bread in Paris per individual was 417 grammes. From the general total 81,299 kilos are to be abstracted as consumed by the strangers attracted by the exhibition.

2. *Meat.*—A new central cattle market was substituted for the former markets in 1867, although the latter are not yet quite discontinued. It is represented as being, although in some parts not sufficiently spacious, provided with every convenience, not forgetting an enormous boiler for supplying the calves, which constitute so important an article in the Paris consumption, with the tepid water that is indispensable for their wellbeing. The market is held daily, and the *halles* can accommodate 4600 oxen and 22,000 sheep at one time. Precedence in sale is drawn for by lot, so that no favouritism can exist, and every animal is marked both by seller and buyer. There were brought for sale in 1867, 341,253 cows and oxen, 219,614 calves, 209,615 pigs, 1,707,266 sheep, making a total of 2,477,775 animals. Various countries on the Continent contribute to the supply of the Paris market, but to no great extent; and during the present year agents have been despatched into Roumania to endeavour to bring thence some of the immense flocks pasturing on the steppes. Until the decrees of 1810 and 1811 slaughtering was permitted in the streets of Paris, and the five abattoirs then determined upon were not opened until 1818. These have in part disappeared, and will all be displaced by the vast abattoir of the Rue de Flandre. This is attended to by about a thousand slaughterers and other operatives, who commence work from four to six o'clock in the morning and continue until one. At two the butchers come to purchase, and the meat is all conveyed away to the different parts of the town in 180 vehicles constructed for the purpose, and the weight of which being exactly known, there is no difficulty in collecting the *octroi* on the meat they carry away, as they pass over the weighing machine. At this one abattoir were slaughtered, in 1867, 799,448 animals, furnishing 49,417,024 kilos of meat for the retailers. Slaughtering goes on every day, but Good Friday is the day on which most work is done in the year, in preparation for Easter after the fasting of Lent. The greatest order and calmness prevails amidst all the horrid work, and the dexterity, precision, and speed with which the slaughterers perform their work, are amazing. M. du Camp found, by a stop-watch, that only forty-eight seconds are required to slaughter twenty sheep, all the blood being carefully saved. It is to be remarked that

these men, who are living constantly amidst blood, and whose business it is to take away life, have a great horror at needless suffering being inflicted on the animals being slaughtered, and they do not hesitate, whenever they have the opportunity, of despatching the oxen who are slowly dying amidst great struggles by the hands of the Jewish sacrificers. Of course, nothing is wasted, and, after all else had been utilised, the mere refuse at the central abattoir was sold in 1867 for 16,000 francs. The butchers were for a long time submitted to restrictive legislation, like the bakers, but their liberty is now, as is their competition, complete. There are now 1574 butchers' shops in Paris, besides 268 stalls in the markets. Moreover, a separate part of the market has been opened for meat sent from the country, and in 1867 there were 20,310,308 kilos sold there. As this meat is derived from animals which had not undergone inspection in the markets, it has all to be examined and marked as wholesome. The meat which, although of a bad appearance, is still considered nutritious, is forwarded to the Jardin des Plantes for the animals, 94,362 kilos. being so sent in 1867. The remainder is wetted with turpentine, and sent to the knackers for industrial purposes. In 1867 there were 111,353 kilos. seized. The total quantity of meat derived from the abattoirs and the country in 1867 amounted to above 135,000,000 kilos, and, taking the population of Paris, including the garrison, at 1,825,274, this gives for each individual 69·966 kilos per annum, or 191·68 grammes per diem of butcher's meat, and 7·477 kilos per annum, or 20·84 grammes per diem, of pork. There are 849 pork shops in Paris. It is interesting to quote M. du Camp's opinion on horseflesh eating: –

"Animal food, the use of which should be extended as much as possible, is unfortunately very dear, and much effort has been made to popularise the employment of horseflesh. The attempt has failed, and thus far hippophagy has obtained only negative results. It is not sufficient that certain *savants*, animated by the most excellent intentions, should meet at a well-served table to eat beefsteak of horse *aux truffes*, horse kidneys *au vin de Champagne*, horse tongue with tomato sauce, to wash it all down with excellent wine, and deliver elegant orations, in order to overcome deeprooted prejudices and insure the reception of a new kind of food. The poor know well that horses slaughtered for food are old animals exhausted by labour, and that they can only constitute an unnutritious and sometimes a dangerous diet. Certain *esprits forts* have indeed made, for curiosity, a trial they take care not to repeat; but the lower classes have not been persuaded by all the fine promises held out, and really one cannot blame them. Since the sale of horseflesh was authorised, twenty-two shops have been opened, but these transact but little business. Up to last March there have been slaughtered at the three special abattoirs 3728 horses, 86 asses, and 23 mules, furnishing (the mean age of the animals being 14 years) 76,857 kilos. of meat. These establishments are carefully inspected, and in a single abattoir 24 horses were seized and delivered over to the manure manufacturers, 5 having fractures with fever, 10 suffering from farcy or glanders, 7 from chronic chest affections, and 2 from ulcers or skin disease. The horseflesh sent to the butchers quickly undergoes decomposition, for it is almost always anæmic, in consequence of the enfeebled state of the economy of the animal. However, it must be got rid of, and purchasers will not buy it. It is then made up into sausages made to imitate those of Arles, Lorraine, or Germany, and they are disposed of to the fruit shops, grocers, etc. In a short time, however, they are found to be decomposed and uneatable. The other portion of the meat is sold during the night to the low eating-houses. It is not by means like these that an old prejudice will be removed, which exists in spite of all attempts to oppose it, for frequently the destitute refuse tickets for a gratuitous meal of horseflesh."

3. *Wine.*—The *halle aux vins* at the *quai* St. Bernard, vast as it is, is inadequate for the present wants of Paris. In 1867 there remained in the cellars from the previous year 425,366 hectolitres, and there were brought in 830,015 hectols., 831,310 being removed. Of spirits, there were brought in 212,573 hectols., and removed 174,940. Out of these large quantities only 416 hectols. were seized, and that rather for being spoiled than for being adulterated. When wine contains too little alcohol, it is mixed with vinegar and returned to the owner; but when it is pronounced noxious it is poured into the Seine. Although wines are not adulterated at the entrepôt, they may be mixed in any desired proportions, and this is done on a large scale, every variety of wine thus being capable of artificial production. Some wines are exclusively employed to furnish the necessary colours. Madeira, however scarce in its native isle, may always here be had in abundance, and the same may be said of any desired kind. The brandy sold by the ordinary retailers does not contain an atom of spirit of wine, and even genuine cognac may have to acquire its silky or velvety taste appreciated by the *gourmets* by means of a mixture of infusion of tea and syrup of mallow. Plenty of actual adulteration, however, takes place at the retailer's, whose chief art consists in making three casks of wine out of two. The police has in its employment twenty-eight sworn tasters, directed by a head taster and his assistant, whose duty it is to search out for and denounce adulterators. These tasters have to undergo a regular competitive examination, twelve samples of wine being presented to them, whose place of growth they are expected at once to declare. Some of these tasters can accomplish true prodigies, being able, if required, to specify the seven or eight kinds of wine that constitute a mixture. Their post is no sinecure, for they have 23,643 establishments to visit, including 11,346 wine retailers, 444 tables d'hôte, 2093 restaurants, and 1631 cafés. Formerly all wines seized were poured out in the kennels before the doors of the delinquents, but as it was found that the poor rushed into these to intercept the precious fluid, that practice was discontinued, and they are now restored to that river whence the greater portion of them had been derived. From the actual returns it appears that in 1867 there were brought into Paris 3,575,561 hectolitres of wine, which would furnish each inhabitant with 195·89 litres (a litre is 1¾ pint imperial) per annum, or 5·16 decilitres per diem of "natural" wine.

THE WEEK.

TOPICS OF THE DAY.

The Medical graduates of the Scottish Universities will no longer be without a voice in the government of their own Universities or in the Parliament of the realm. The clauses of the Scottish Reform Bill, of which we elsewhere publish an abstract, give to every Doctor and Bachelor of Medicine, on the payment of a trifling registration fee, a seat in the General Council of his University and a vote in the election of one of the two members of Parliament who are to represent the four Universities. It is improbable that any alteration will be made in the House of Lords in these clauses, and it is scarcely premature to congratulate the graduates on their newly acquired privileges. But privileges bring with them responsibilities. If the Profession of Medicine and the interests of science be not more adequately represented in the coming Parliament than in any preceding one, it will undoubtedly be the fault of the University constituencies. The University of London might, were its graduates not split up into merely political parties, return a man to Parliament who would be a worthy representative of our Profession, and the leader of the House of Commons on all subjects which require elucidation from modern science. The Scottish Universities, and especially the Universities of Edinburgh and St. Andrews, the great mass of whose graduates are Medical men, have a like honourable path open to them. We would

counsel the Scottish graduates not to pledge their votes finally to any candidate until it be seen who is in the field. It is undoubtedly the fact that there is room for a thoroughly scientific Medical man in the House of Commons, one whose Professional status would warrant him in speaking authoritatively, and whose talents and personal character would secure him the ear of the House. Should such a man be in the field, we think it would be the duty of the Medical graduates to support him. Amongst the rumours on the subject, we hear that Dr. B. W. Richardson will probably be requested to come forward as a candidate.

The coming election of Fellows at the Royal College of Physicians continues to attract much of Professional attention. There seems to be a general hope that the selection will be made on fairer and broader principles than have on previous occasions been apparent. We shall not speculate on the result, but we will only repeat that the Fellowship is an honour which should be within the reach of all Members of the College; that it should be conferred in accordance with the by-laws which recognise scientific and literary merit, as well as Professional success, as affording a claim to it; and that anything like the appearance of favouritism in its distribution should be studiously avoided. It is only by following a just and politic course in this matter that the College can hope to affiliate to itself the great bulk of English Physicians.

The election into the Council of the Royal College of Surgeons is approaching rapidly, and we are now able to give our readers a final and complete list of the candidates. They are Sir William Fergusson, Mr. Partridge, Mr. Erasmus Wilson, Mr. Simon, Mr. Gay, Mr. Luther Holden, Professor Humphry (of Cambridge), Mr. Charles Brooke, and Mr. George Cooper. There are four vacancies. Of the two retiring members—Sir William Fergusson and Mr. Partridge—Sir William Fergusson will undoubtedly be re-elected, but it is doubted whether the return of Mr. Partridge be equally certain. It is not improbable that many of the electors may hold that the estimable Professor of Anatomy at King's College, having filled the highest posts of honour in the College, should now make way for other competitors. We believe that Mr. Erasmus Wilson will obtain a large amount of support. He is an instance of a man who, without connexion with Hospital or school, has obtained, as a Practitioner and an author, a high place both in the confidence of the public and the Profession. The election of such men is desirable on all grounds, and we believe that the great bulk of Fellows will gladly take an opportunity of showing that they are uninfluenced by the narrow principles of Hospital cliquism which in past days have ruled the College counsels. Mr. Simon's official position and known scientific standing and ability also render his election most probable. What may be the chances of the other candidates it is difficult to say. Professor Humphry, of Cambridge, has the prestige of a high scientific and academic reputation. Mr. Luther Holden will obtain considerable support, not only as a St. Bartholomew's man, but as a representative of the Fellows by Examination. Mr. Gay has a high reputation as a successful Surgeon, both in Hospital and private practice, and as the author of several improvements in Surgical practice. Mr. Charles Brooke is an able physicist, as well as Surgeon to the Westminster Hospital. Mr. George Cooper has been long before the public as Surgeon to the Bloomsbury Dispensary, and has, no doubt, a considerable number of friends amongst the electors. With such men to choose from, the Fellows can scarcely go wrong. Amongst the candidates there are several who, if not successful on the present occasion, will undoubtedly obtain the coveted honour hereafter.

Professor Partridge has been again chosen Professor of Anatomy in the Royal Academy. We hear that Mr. Marshall and Mr. Durham were also candidates. The latter gentleman retired before the election. It is said that fourteen votes were given for Mr. Partridge and eight for Mr. Marshall.

Professor Roscoe's sixth and last lecture on spectrum analysis was on the subject of the chemistry of the fixed stars, the nebulæ, and comets. He said that in the former lectures he had had principally to describe the discoveries of German observers, but that on this occasion he should be chiefly occupied with the researches of two of our countrymen, Mr. Huggins and Professor Miller. Before proceeding to the special subject of the lecture, he exhibited on the screen the spectra of several metals—copper, magnesium, cadmium, and zinc—which are contained in the sun's atmosphere; and the spectrum of silver, the lines of which are not coincident with any of the dark lines in the solar spectrum. Some of the lines in the solar spectrum are undoubtedly caused by absorption in the earth's atmosphere, and it has been proved that the same lines may be obtained by passing light giving a continuous spectrum through steam. It has also been observed that these particular lines are more marked and decided in the light coming from Jupiter and Saturn; they are the lines of aqueous vapour: hence it appears that there is water in the atmosphere of Jupiter and Saturn. Dr. Roscoe then proceeded to describe the arrangement of telescope and spectroscope by which Mr. Huggins's observations on the fixed stars had been made. The spectra of these stars differ very widely. Fraunhöfer, as early as 1814, observed that the lines in the solar and stellar spectra were not identical. Take Aldebaran and α Orionis for instance: the D sodium line exists in both. Hydrogen lines exist in the spectra of the sun and Aldebaran, but they are wanting in the spectrum of α Orionis. Then again, other substances, as bismuth, antimony, and tellurium, have been observed in certain stars, but they are not found in the solar spectrum. Hydrogen has been found to be wanting in two stars hitherto examined, α Orionis and β Pegasi. It would appear, however, that starlight is analogous to sunlight, inasmuch as the fixed stars give spectra consisting of dark lines on a bright background. The light both from sun and stars, therefore, seems to be a continuous light proceeding from a white-hot nucleus passing through an incandescent atmosphere of metals in a state of vapour. The visible universe, indeed, seems to be mainly composed of the same materials. The lecturer then proceeded to speak of coloured stars. Some stars, as Sirius, are white, others yellow, others blue. The reason of the white light of Sirius is that the absorption lines are interspersed pretty equally through its spectrum; whilst in the spectrum of the star α Herculis, which is of an orange colour, the absorption lines are well marked in the red, green, and blue portions, whilst the orange part of the spectrum is comparatively free. Drawings by Mr. Huggins of the beautiful coloured spectra of these stars were shown on the screen. In reference to double stars it is a remarkable fact that a blue, green, or purple star is rarely found alone, but is generally associated with a strongly red or orange star. In May, 1866, in the constellation of the Northern Crown a star of the tenth magnitude, which had been previously almost unknown, was observed suddenly to blaze out and rapidly to attain the second magnitude. After a few days it declined in brilliancy. Mr. Huggins examined this phenomenon at frequent intervals by means of the spectroscope. He found that it exhibited, superimposed upon or in addition to the ordinary stellar spectrum, certain bright lines which indicated the presence of an incandescent gaseous body. These lines were found to be coincident with hydrogen lines. Shortly after, as the star diminished in brilliancy, and returned to its previous magnitude, the bright lines were found to diminish and fade away. They were, in fact, due to the conflagration of hydrogen, and this was really a star on fire. Similar changes have from time to time been recorded, although not investigated, in other stars. Turning to the subject of nebulæ, Professor Roscoe took as an example

the planetary nebulæ in the constellation Draco. The light given off by nebulæ is so much less than that of fixed stars that the difficulty of their observation becomes enormous. The spectra of nebulæ exhibit three bright bands or lines, which indicate the presence of luminous gases. One of these is a nitrogen line, the other corresponds with a hydrogen line; the intermediate line does not correspond with any known line. The reason that the other lines of hydrogen and nitrogen are not observed is, according to Mr. Huggins, because the light from nebulæ is so faint. He finds that if the intensity of light coming from glowing hydrogen and nitrogen be diminished, one line in each, coincident with the lines observed in the spectra of the nebulæ, is only observed. From the nebulæ in the sword-handle of Orion—nebulæ which appear to be split up into luminous points (the points adjacent to what is called the trapezium of the nebula)—Mr. Huggins obtains only the same indications—three bright lines. It follows, therefore, that the light given off by these luminous points (which have been supposed to be stars) is identical with that given off by the true nebulæ. It is not analogous to that given off by the fixed stars. Comets: Brorsen's comet has been just observed by Mr. Huggins (May, 1868). The light of this comet is analogous to that of the nebulæ, inasmuch as its spectrum shows three bright lines which are due to luminous gas. But these lines are not identical in position with the lines of the nebulæ. Neither are they identical in position with the lines of any known substance. A comet consists of a minute amount of matter spread over an enormous space—in this instance 60,000 miles. How this matter is kept up at the temperature of incandescent gas we can form no idea. Spectrum analysis may also be used to inform us respecting the motion of these bodies. Light from rapidly moving bodies is found to differ from light at rest. In some stars, from their motion, a disturbance in the position of a hydrogen line has been actually observed. From this fact the motion of recession of Sirius from the earth has been calculated to be at the rate of twenty-nine miles per second. The lecturer, in conclusion, explained and illustrated the nature of phosphorescence and fluorescence—the former depending upon the storing away or bottling up of light in a substance, the latter being the degradation of light—certain bodies which receive violet rays having the power of producing light of a lower degree of refrangibility. This was demonstrated by passing violet light through solutions of quinine, esculin (from the bark of the horse-chestnut), and, as first shown by Dr. Bence Jones, through the colourless lenses of a bullock's eye. Thus terminated this most successful and interesting course of lectures, for which the Profession are indebted to the Master and Wardens of the Society of Apothecaries. In addition to the crowd of Medical men who have attended them, they have attracted many of the foremost cultivators of science, amongst whom were Lord Rosse, Sir Charles Lyell, and Mr. Huggins.

The judges of the Court of Queen's Bench sitting in Banco have made the rule absolute for a *quo warranto* in the case of the Queen *v.* Diplock, in the matter of the coronership of West Middlesex. The whole question of the election is, therefore, undecided.

The Profession will be glad to learn that the exertions of Dr. Gimson in the late outbreak of fever at Terling have not been allowed to pass unacknowledged. On Thursday, June 4, a public meeting was held in the schoolroom of the village, when Lady Rayleigh, on the part of the inhabitants of the district, presented Dr. Gimson with a testimonial consisting of two massive silver cups and £100. It would have been satisfactory to see that the services rendered by others of the local Practitioners had been acknowledged in a similar spirit.

In the case of Greig *v.* the University of Edinburgh, an appeal from a decision of the Scottish Court of Sessions, it has been decided by the House of Lords that the University is liable to be assessed for the relief of the poor. One of the pleas on which it was sought to establish immunity from taxation was that of Crown privilege, the ground on which the University buildings stand being the celebrated Kirk of Field granted for the purpose of a University by Mary in 1566, and confirmed by James I. of England and VI. of Scotland in 1582.

The *conversazione* at University College was largely attended by visitors of both sexes. Among the works of art exhibited was a plaster cast of a bust of Sir William Jenner, which, in our opinion, does but scant justice to the distinguished Baronet. At the *conversazione* at the Royal College of Physicians there was a great crowd of London Professional celebrities, interspersed with a few of our friends from the country and an occasional bishop. There was the usual array of microscopes and objects of scientific interest. One of the most attractive exhibitions was given by Dr. Odling, who demonstrated the decomposition of steam into oxygen and hydrogen by the electric spark.

The administration of nitrous oxide gas continues much in vogue amongst the dentists. We are informed by Mr. Clover that he has administered it now upwards of a hundred times with success. From the experiments we have seen with it, we regard the anæsthesia as depending on the production of temporary asphyxia, but it is marvellous how soon the condition is recovered from. A patient who has looked livid and ghastly with blue lips, a minute or two afterwards is rosy and laughing. Still we want further evidence, in addition to Dr. Colton's 27,000 cases, before we should like to give or take the gas except for the relief of momentary pain. Dr. Colton has lately been giving a series of demonstrations of its power as an anæsthetic in the operation of tooth-drawing, at the residence of Mr. C. J. Fox, the dentist.

THE CHANCELLORSHIP OF THE UNIVERSITY OF EDINBURGH.

The post of Chancellor in a Scotch university is for the most part an honorary one. He is elected by the University Council—that is to say, by all graduates entitled to a place in that body, and who have qualified themselves for it by registering their qualification and paying the necessary fees. The Chancellor so elected has, however, no direct voice in the management of university matters, having no seat in the University Court, except by his deputy, the Chancellor's Assessor. He is, however, expected to defend the rights of the body over which he presides, should he be called upon to do so. He possesses certain rights as to casting votes in closely contested matters, as on the election of the Lord Rector. In the present contest between the Lord Justice-General Inglis (pronounced Ingels) and Mr. Gladstone, matters are likely to take a purely political turn. This we sincerely deprecate. The apppointment carries with it no political influence, and should not be disposed of for party reasons. We would rather see it assigned to him who has done most for the cause of education in Scotland, and in this respect the Lord Justice-General has no rival in Mr. Gladstone. However much the Lord Justice-General's Bill, introduced when he was Lord Advocate, and known as the Scotch University Act, was decried at the time it came in force, there can be but one opinion now as to its utility. New chairs were introduced and endowed, improved curricula were enforced, graduates were granted more extended privileges than they had heretofore possessed, and the whole structure of Scotch university education improved and extended. Much of the good done was owing to the Lord Justice-General's personal influence. He sternly opposed retrograde measures, and was generally successful in his opposition. He incurred obloquy and personal abuse, but he knew for what he wrought, and now he has the tribute of the gratitude of those who, in their short-sighted policy, tried to oppose his doings. At the time he was greatly misrepresented, but now, when the system he introduced has had the benefit of a full trial, he would be a thorough-going Tory who should desire to see the old order of things reintroduced. No man alive has

done so much for Scotch university education as John Inglis. Although a Conservative politically, he has shown himself, as not unusually happens, a true reformer socially. He swept away many abuses, and at the time was supposed to have gone much too far. Now most men familiar with the real state of affairs regret that he did not go further. Attempts have been made before this time, and we regret to see that they are again being made, to vilify Lord Justice-General Inglis in the eyes of the public. His political opinions have been held up in contrast with those of Mr. Gladstone as a reason for his rejection. We have already shown that this is not a matter which ought to be decided on political grounds, and in educational matters there has been no truer reformer than John Inglis. Against Mr. Gladstone's claims we say not a word; he is a scholar and a gentleman, and we have tried rather to set in a clearer light the Lord Justice-General's claims to the high position of Chancellor of the University of Edinburgh. Those who are most familiar with Scotch education, Medical or otherwise, cannot fail to endorse what we have stated. There are other things which, to our mind, are still more in favour of the Lord Justice-General, but these, as not likely to command universal assent, although we know they would be acknowledged by many, we forbear to mention.

CONTAGIOUS DISEASES AT ALDERSHOT.

We learn with pleasure from Aldershot that the system advocated in these pages some weeks ago, of Medical inspection of troops arriving from other stations for the detection of enthetic diseases, is now duly enforced. The results, as might have been anticipated, have fully established the necessity for the measure as a means of giving complete effect to the provisions of the Contagious Diseases Act. We hear that within the last few weeks the arrival of three regiments in the camp from unprotected stations, Dublin, Edinburgh, and Colchester, doubled the number of admissions into Hospital from this class of disease, and that the increase was entirely due to the number of cases detected among the newly arrived regiments. It is gratifying at the same time to learn that in many of the regiments which have been for some time in the camp it is not unusual for weeks to pass without any case of enthetic disease being admitted into Hospital, and that the numbers remaining at the end of each week from that cause have been very remarkably reduced.

SUPERANNUATION OF THE IRISH POOR-LAW MEDICAL OFFICERS.

We have of late had repeatedly to speak of the hard case of the Irish Dispensary and Poor-law Medical officers working for inadequate payment, and left in their old age, or even when overpowered by sickness, without provision of any kind. Their case has been heartily taken up by the Irish Medical Association, which recently met in Dublin, and Professor Rawdon Macnamara, Vice-President of the Irish Royal College of Surgeons, has been deputed to plead their cause here in London. We need not say that we wish him every success, and we are glad to learn that her Majesty's Government propose to offer no opposition to the scheme. It may seem invidious to advocate a superannuation fund for Irish and not for English Poor-law officers, but their cases are widely different. It is held out as a reason for not superannuating them that the Poor-law Medical men have a right to practise in their several localities, but the miserable state of the country renders this permission of little value in most parts of Ireland, whilst the enormous distances some of the Medical men have to travel before seeing their dispensary patients not only necessitates the expenditure of much time, but also involves the expense of keeping one or more horses. In England, again, it may be said that Poor-law appointments are accepted as a nucleus for a more extended practice, and are frequently held by men to whom the income derivable from the Union is a matter of no moment, their only purpose being to exclude undesirable competition. A retiring allowance for men in such a position may be unnecessary, but it is far different with the Irish Poor-law Medical officer.

BOMBAY MEDICAL SERVICE.

Dr. A. Leith, Deputy Inspector-General of Hospitals, Bombay Service, having retired in January last, was succeeded in the appointment of President of the Sanitary Commission of Bombay by Colonel Bell, of the Engineers, formerly a member of the Commission. Thus the same change which has already taken place in the Sanitary Commissions of Bengal and Madras—the former having been handed over to an officer of the Staff Corps, and the latter to an officer of the Civil Service—has now, by a strange process of retrograde development, been effected in Bombay; and another step has been taken in the gradual deterioration of the Indian Medical Service by the withdrawal of one of the few prizes once belonging to it.

OVARIOTOMY IN AUSTRALIA.

Dr. Tracy, of Melbourne, continues his success in ovariotomy. In the *Australian Medical Journal* for January he publishes two cases, both successful, and states of his two previous cases, published in 1864, that both patients continue to enjoy excellent health. He makes some interesting observations on the different modes of dealing with the pedicle, and gives good reasons for his preference for the clamp over any intra-peritoneal method. And he concludes thus:—"The successful issue of four cases at various ages, ranging from sixteen to forty-six, all of whom must have died a miserable death within short periods, will, I trust, establish this operation here on the same firm footing as in the old country. Surely no reasonably suitable case should now be left to perish under merely palliative treatment, without at least an attempt being made to remove this truly formidable disease."

ABYSSINIA.

The withdrawal of our troops is being effected with the utmost despatch. A good many of the corps have already embarked, and it is hoped that the whole force, European and Indian, will have sailed from Zoulla by June 9. The heavy rains and the consequent alternations of temperature have told considerably in the production of dysentery and diarrhœa, chiefly among the Europeans, in whom the latter disease suddenly became prevalent. It has been remarked that fevers were not frequent; such cases as did occur were mostly relapses of fever contracted in India. The privations and difficulties on the first stages of the homeward journey are described as having been very great, but latterly they have been much less, since the commissariat stores have been once more within reach. There is now every prospect of the remainder of the march being effected in the time we have mentioned, provided that the roads be not destroyed, or the baggage animals disabled by the rains. The Artillery and Engineers sent from England, and the 4th and 33rd Regiments, which went from India as on a stage of their homeward journey, will be conveyed to England by the overland route in the Indian troopships. The Artillery, 3rd Dragoon Guards, 26th and 46th Regiments, which are still borne on the Indian establishment, not having completed their tour of service, return to India. The sick and wounded will be sent to this country in the Hospital ships *viâ* the Cape. A telegram from Alexandria, of the 8th inst., announces that the 3rd Dragoon Guards and the 33rd Regiment had sailed on that day in the troop-ship *Crocodile* for England, and that the Egyptian authorities had removed the quarantine restrictions on arrivals from Abyssinia. So we may soon expect the arrival in this country of that portion of the force destined for England. There can now little doubt

remain that the withdrawal and embarcation of the remainder will be effected with equal promptitude, and that all that remains to insure the complete and final success of this brilliant undertaking will have been achieved before the setting in of the unhealthy season during and particularly after the rains.

THE PROFESSION AT THE CAPE.

We have just received from Capetown the official list of Medical Practitioners licensed to practise in the colony, giving us some notion of the state of the Profession as it existed at the Cape at the end of March, 1868. The list also contains the names of the chemists and druggists licensed to practise in the colony. Confining ourselves to the former category, we find that the number of Medical Practitioners in the colony is just over 130, and that of these only six are put down as having no registered diploma, while two have the doubtful qualification of having served in her Majesty's army. The majority, in fact, are qualified both in Medicine and Surgery. Most of them also hold licenses to practise from British Universities or licensing bodies; but many hold diplomas of foreign—that is, Continental—Universities, as Berlin, Halle, Marburg, Heidelberg, Göttingen, Leyden, Utrecht, Jena, Giessen, Louvain, Würzburg, Tübingen, Haarlem. Many of the names are foreign, as might be expected in a colony originally Dutch. There are also a considerable number of French names, although there would appear to be only one M.D. of Paris in the colony. The ubiquitous Scotchman is in force in the colony, and it would appear that the Scotch Universities are the favourite educational institutions for the Cape people, as we find many with Dutch names and Scotch diplomas, who must, from the dates, have been educated in their respective universities. Curiously enough, there is not a single American qualification in the list, although American Practitioners are far from uncommon in most of our colonies. Taking this list as our guide, we cannot help looking upon the Medical men at the Cape as constituting a highly respectable and well-educated body. The marked absence of those who are in practice without any proper qualification, and the fact that most men who are so date as far back as 1820 or 1840, indicate a higher standing than is probably to be found in any other colony. Although the Cape has never been a very popular place with emigrants, the colony has advanced steadily onwards in prosperity, so that there has been no sudden inflation to attract men from all parts of the world to its shores; this most likely accounts for the highly creditable appearance its Medical Practitioners present on paper.

VACCINATION FROM THE HEIFER.

We hope it will not be long ere the practice of vaccinating from the heifer will be introduced amongst us. It will do away at once with the most common and most plausible argument against vaccination. Dr. Ballard, whose labours have made him the best English authority on the subject, says:—

"The virus which has passed through some hundreds or thousands of human systems since it left the cow, has undergone in such transmission and repeated human generation a degradation in its character and force. The vaccine disease, as produced by most Practitioners now by arm-to-arm vaccination, is a much less virulent disease than it was when first inoculated by Dr. Jenner, or than it has proved itself where new sources have been opened on the occasional discovery of natural cases of cow-pox. Jenner contented himself with a single puncture with such virus, and was even then alarmed, although needlessly, at the local result produced; others, under similar circumstances, have contented themselves with two, whereas, for the production of a satisfactory result with the virus mostly in use here, four or eight punctures are needed, and even then a less amount of constitutional disturbance follows the operation. Yet we find, on examining the arms of vaccinated children, in place of scars which may be seen half across a long room, marks so poor and superficial left by the vaccination that close inspection may be needed to see them at all, and, in place of four to eight pocks, possibly only one or two paltry vesicles raised by the operation. Can it be wondered at, then, that the reputation of a protective is endangered when the protective itself is not what it was when it was originally introduced? There is but one remedy for this—namely, the occasional renewal of the stock of virus we use from the cow or heifer, and in the meantime the production, as a substitute for quality, of an increased number of pocks with the human vaccine. In Paris all the public vaccinations are performed from the heifer."

FROM ABROAD.—GERMAN PROFESSORS—M. MIALHE ON THE ABSORPTION OF PHOSPHORUS.

The position of a German Professor is, in many respects, a very pleasant one. Plenty of leisure, surrounded by congenial spirits, the centre of a school of admiring pupils, having an assured place in society, and a person of considerable consequence even in the eyes of politicians—at all events, during that abeyance of public life which so long kept down Teutonic energies in any other than a university sphere—his career is, to men gifted with the love of science and unsurrounded by his advantages, an enviable one. Then, again, his life is not one of a stationary future based on former activity and present reputation, but one of scientific progress excited into action by the best of all stimuli—the applause and emulation of those who are able to appreciate and recompense his labours. The system of promotion from chairs in the lesser to those of the greater and more celebrated universities is an admirable one, whereby a true hierarchy of scientific merit may be said to be in constant course of creation. As the repute of a university and the resort of students so much depends upon the renown of its professors, the best that can be obtained for supplying vacancies as they occur are sought for on every side; and hence we find the frequent response made by men who have attained great reputation to "calls" to higher posts. To retain them where they are, their salaries are sometimes increased, as in the recent case of Professor Hering, who had received a "call" to fill the Chair of Physiology at Würzburg vacated by the premature death of Bezold. As he had acquired great popularity in his present chair in the Military School at the Joseph Academy of Vienna, in order to induce him to remain his salary was raised from 1920 (about £190) to 3150 florins—no great sum, after all; but it is to be recollected that the professors receive pupils' fees as well, the amount of which depends upon their reputation. Professor Pflüger, of Bonn, afterwards received and accepted the "call." In every university, besides the professors, there is a numerous body of *privat-docentes*, who, unsalaried, easily obtain permission to teach any branch of science, deriving their emolument solely from the fees of pupils. As these distinguish themselves, they become promoted into the rank of extraordinary and ordinary professors.

M. Mialhe, having been lately engaged in a Medico-legal investigation on a case of poisoning by phosphorus, was led, during the experiments he performed, to alter his views in relation to the absorption of this substance. Until now he had thought that the absorption of sulphur and phosphorus was solely due to the chemical action of the alkalies present in the intestinal juices. This investigation, the result of which he now details (*Union Méd.*, June 4), has convinced him that such absorption is especially due to the fatty matters contained in the alimentary substances. These fatty matters, after effecting the solution of the sulphur and phosphorus, serve as the vehicle for their introduction into the economy. It is even probable, at all events as regards phosphorus, that their absorption as a simple body is the general rule, absorption in consequence of chemical reaction being the exception. The proof that such is the case in poisoning by phosphorus is, that while abstinence and the taking emollient or acidulated drinks have apparently led to a cure,

the ingestion of alimentary matters developes all the symptoms of poisoning, the patient usually dying. The phosphorus so absorbed may remain several days within the economy without undergoing any sensible change, its union with the fatty matters enabling it in great part to escape the action of the chemical agents with which it comes in contact, and to thus diffuse itself through all the living tissues in the same manner as poisons soluble in water. This explains why, when we perform the autopsy in the dark of an animal that has been poisoned by phosphorus, its tissues give out the phosphorescent light and alliaceous smell. It also explains why some persons have been poisoned after eating the flesh of domestic animals, such as fowls or pigs, which have eaten phosphoric paste. We can, then, adopt M. Tardieu's statement that phosphorus is poisonous of itself, and acts only on the economy in a state of isolation and purity. The extremely poisonous character of phosphoretted hydrogen presents no objection to this theory, since instantly that this is introduced into the blood it gives rise to the production of water and the precipitation of phosphorus in a state of minute division eminently suited for the development of its deleterious action.

Two practical consequences are deducible from what precedes. First, in poisoning by phosphorus it is indispensable to expel this toxical agent as rapidly as possible from the economy by aid of acidulated laxative drinks, and to place the patient in a state of abstinence, or at all events prohibit his taking any food containing fatty matter; and secondly, that when phosphorus is administered therapeutically it is best to give it dissolved in a heated fatty body, which prevents its undergoing change, and insures its complete absorption. Acting in this way, we avoid entirely the local action of the phosphorus, which is not the case when it is prescribed dissolved in ether or chloroform. These two substances being soluble in a large quantity of water, the whole or part of the phosphorus is set at liberty by the alimentary fluids, and, becoming deposited on the mucous membrane, gives rise there to more or less inflammatory action.

PARLIAMENTARY.—GRANTS FOR SCIENTIFIC AND EDUCATIONAL PURPOSES—SCOTTISH UNIVERSITY REPRESENTATION—THE ALKALI ACT—ADULTERATION OF DRUGS.

On Thursday, June 4, in Committee of Supply, the House of Commons voted £11,800 in grants to the learned societies; £1580 to purchase the antiquarian collections of the late Dr. Petrie; £2265 for the Queen's Colleges in Ireland; £17,949 for Scottish Universities; £239,290 for the Science and Art Department; £9063 for the University of London; £3155 for the Queen's University, Ireland; and £19,134 for Hospitals and Infirmaries (Ireland).

On Monday, in Committee on the Scottish Reform Bill, the Lord Advocate proposed a set of new clauses, having reference to elections for the Universities, which, after some discussion on minor points, were agreed to. These clauses, he said, had been adjusted with the approval of the Universities.

The Alkali Act Perpetuation Bill (1863) was read a second time.

On Tuesday Mr. Dixon obtained leave to bring in a Bill to amend the Act for preventing the Adulteration of Food and Drinks (1860), and to extend its provisions to drugs. This Bill would provide for the appointment of a public officer to undertake prosecutions against offenders.

THE Archbishop of York, as Chairman of the Council of King's College, has issued invitations to all the members of the College and Hospital staff to a dinner to be held at King's College on July 1.

ACADÉMIE DES SCIENCES.—M. Bouillaud was elected into the Section of Medicine and Surgery in the place of the late M. Serres by the votes of thirty-eight of the fifty-seven voters who were present.

MR. LE GROS CLARK'S SECOND LECTURE

AT THE

ROYAL COLLEGE OF SURGEONS,

ON THE PRINCIPLES OF SURGICAL DIAGNOSIS, ESPECIALLY IN REFERENCE TO SHOCK AND VISCERAL LESIONS.

JUNE 3, 1868.

AN eminent Physician has observed that all we know of the treatment of the sick is originally derived from observation, not of the nature of diseases, but of the effects of remedies. The action of medicines can be learned only by experience, and such knowledge is for the most part purely empirical. But the most accurate acquaintance with therapeutics is useless unless coupled with a capability of identifying disease, and thus empiricism and science combined make the accomplished Physician. In Surgery, apart from Medical treatment, there is but little scope or justification of empiricism. Diagnosis is all-important, and physiology and pathology have taught us how to manage Surgical disease—when and how to interfere. The evidence by which we judge of the nature of Surgical disease or injury is derived from various sources. There is the history of the case, embracing the antecedent circumstances in disease, the concurrent circumstances in accident. From this, together with the symptoms and signs the patient presents, by the positive information they supply or the negative evidence of their absence, we judge of the nature of the affection. "Sign" and "symptom" are not exactly convertible terms. There is an etymological difference between them, but the main distinction is determined by conventional usage. "Symptom" is more Medical, "sign" rather Surgical. The presence of a "symptom" is indicative of an abnormal condition not in itself manifest; "sign" appeals exclusively to the senses, and is a palpable token of some material change in the body. We speak of symptoms of fever, signs of fracture—symptoms of cancer of the stomach, signs of cancer of the breast. Symptoms are subjective functional variations, signs are sensible objective changes.

In some cases previous history can be dispensed with; in others, antecedent circumstances afford considerable assistance in the diagnosis. To ascertain them is often a matter of considerable difficulty. Sometimes patients are indisposed to answer any inquiry; in others, all questions are agreed to with a readiness which destroys the value of the reply. There are few Surgical cases in which the general antecedent condition of the patient has not some bearing on treatment and prognosis, and often on a just diagnosis also. This is especially the case in large cities, where life is more artificial, and overstimulation, with insufficient exercise, is so common. In the drunkard, after an injury, the power tends to destructive disorganisation rather than to repair, unless the wonted stimulus, often of a special kind, is supplied. Tardy union of a fracture is often hastened by a welcome glass of gin, and in one case non-union of a fractured leg was traced to the patient's deprivation of his accustomed evening's indulgence in smoking, which was forbidden by the rules of the Hospital, and a relaxation of the rule led to the happiest result. Not less important is the history of previous disease, explaining phenomena otherwise perplexing. Temperament, moral and physical, has often a material influence in determining the course the Surgeon will pursue. A nervous excitability, a frigid impassiveness, or an uncomplaining docility, may materially mislead the Medical man. Occupation, again, often entails unsymmetrical development, and even deformity, and frequently throws light on the nature and consequences of an injury or disease. The exciting causes of Surgical disease are many and various, but most are either extremes of temperature or mechanical violence. Often, as in the case of an injury near a ball-and-socket joint, a knowledge of the way in which it was inflicted will enable the Surgeon to determine its nature.

But the existing condition of the patient is the chief source of information. The changes are of two kinds—subjective and objective, functional and sensible. In the investigation of the objective signs, adventitious assistance is often very useful, such as is afforded by the microscope, thermometer, etc., and the chemical analysis of the secretions.

The worth of a diagnostic sign depends on its pronounced character. Sometimes a single one may be pathognomonic; at others many must be taken in conjunction to be valuable. Often negative evidence has an important bearing, and the absence of some particular sign counterbalances all other things. Of course the capacity of the observer has a great influence. The senses must be well educated, the judgment well balanced, the fruits of experience well stored and readily accessible, and, beyond all, there must be such a classification of acquired knowledge as shall constitute a sound code of principles on which to rest when experience is at fault and precedent fails. It is not rare meet with peculiarities in cases, independent of, or allied to, the existing malady, but without intrinsic value. They constitute most of the remarkable features of the cases of young Surgeons, but to the older ones cease to be remarkable, and are estimated at their true value. Yet some of these accidental concomitants are fraught with a deep and peculiar meaning to those who know how to read them aright: they are as the floating feather showing the course of the current of air or of the silent stream.

There are many sources of fallacy to which the Surgeon is exposed when he endeavours to unravel the tangled web of the various signs and symptoms. The more urgent symptoms may mask those which are less prominent. The patient himself may, wilfully or unintentionally, mislead the Surgeon. The effect of alcohol may entirely change the aspect of a case. Sympathetic functional derangements may throw the real source of mischief into obscurity. Lastly, the influence of prior treatment may modify symptoms considerably, and constitutes a very prolific source of fallacy in diagnosis.

Among the signs and special symptoms of importance in Surgical diagnosis, those are especially worthy of notice which are under the influence of the cerebro-spinal and cyclo-ganglionic systems.

Among the latter the assimilative functions are commonly disturbed in local lesions which produce any constitutional impression. The tongue, the pulse, the state of the excretions, all should be carefully inquired into, and no trouble should be spared, or means of investigation considered beneath the Surgeon's notice, which may elicit the requisite information, and especially among these the self-registering thermometer has a value which it requires only a careful arrangement of facts and statistics to render most important. The condition of the circulation and heart should be carefully investigated, and due attention paid to individual peculiarities. The indications derived from the tongue are extremely valuable; this little member rarely deceives the intelligent inquirer even in its silent response to his queries. The tongue may be trusted if it gives encouragement when all else forbids hope.

Any deviations from the healthy condition of the cerebro-spinal system are of great importance. Their relation to certain special injuries will be considered in a subsequent lecture. Simple wandering of the intellect is not a very valuable diagnostic sign. Slight delirium not unfrequently follows an operation, without any circumstances calculated to excite alarm. Together with other circumstances, however, as signs of inflammation, it becomes a very alarming symptom. The distinction between nervous delirium and delirium tremens has been denied by some Surgeons, but though both possess many common characters, the tremor is more manifestly present in one than in the other; rarely absent in that of drunkards, it is frequently wanting in nervous delirium, and there is rather agitation than tremor. There is a close analogy between the low delirium of many exhausting diseases, as gangrene, and that of typhus and typhoid, and both probably depend on the same cause, the presence in the blood of the uneliminated products of organic combustion.

Expression in attitude and feature is a very valuable adjunct in Surgical diagnosis. The attitude often indicates not only the existence of pain, but its character, and also the amount of excitement or exhaustion. Freedom from pain is expressed by an easy attitude, detectible even in the recumbent posture. Mr. Bransby Cooper used to say that his uncle, Sir Astley, always augured favourably of a patient who received his visit in his bedroom with his hands clasped behind his head. The truth of this simple sign of ease of body and mental quietude may often be verified. The face is often a true index of the mind and feelings. All are naturally physiognomists, but the ability to read expression is much sharpened by familiarity with suffering, for in the sick room human nature is stripped of the reserve which society enforces. Each feature has its own peculiar language, but the meaning is generally more intelligible in their combined expression than when studied separately. Tint of skin is often a measure of the state of health, but of more value to the Physician than to the Surgeon. It is said, indeed, that there is a peculiar tint of skin allied with malignant disease, but if so its frequent absence deprives it of its worth. Aspect and expression is a prolific subject, but one that is difficult to reduce to system or rule. It is indeed intuitively known and interpreted, and may be easily simulated. Yet there is a silent utterance in the compressed mouth, dilated nostril, and upturned eye of genuine suffering, which makes a more forcible appeal than the violent distortion of feature indulged in or assumed.

Motor power is liable to be influenced by any cause acting on the nerve-centre or on the nerves intermediate between that and the muscles. Its guidance in treatment, etc., will be more fully considered in the next lecture. Changes in the excito-motor system are especially of great significance, and they are the more valuable because they are sometimes most pronounced when the cerebral symptoms are interfered with. Local and partial morbid manifestations are excited by too trivial causes to be of much value, but when more general the source is, or becomes by transfer, more directly central, as in tetanus, chorea, epilepsy, probably due, when persistent, to some organic change in the cord itself. Rigor is an excito-motor expression of great value, especially in association with other symptoms. Alone, the most severe rigor may denote only a response to a transient appeal to the sentient nerves, but no symptom is more alarming than a slight rigor allied with conditions which lead the Surgeon to apprehend the occurrence of pyæmia. The cause of the changes in temperature, a rise during the rigor itself, and a fall in the subsequent sweating, is a matter of conjecture. Dr. Johnson has suggested that the sympathetic probably plays an important part in its influence on the walls of the capillaries, and that in rigor there is an anæmic condition of the cord, and in epilepsy an anæmic condition of the brain.

Sensation varies in the same manner as, and often with, motor power. Depressed sensibility is an equivocal symptom unless complete and persistent, when it indicates disorganisation of part of the nerve-centre or lesion of the nerves. Transient paraplegia may result from shock to the cord, but this symptom is limited and does not increase. Hyperæsthesia, analogous to spasm in muscle, often proceeds from the same cause—irritation. There is a rare form of skin tumour which is extremely sensitive. One, the size of a barleycorn, which was removed from a lady's thigh, was the seat of such exquisite sensibility that it was a source of almost constant suffering. Sensations of heat and cold have nothing to do with the actual temperature, and often indicate simultaneous disturbance of the nervous and circulatory systems. The sense of chill is to the rigor what the epileptic aura is to the fit—a premonitory symptom of the true convulsion, and often its mild and transient representative.

Affections of the nerves of special sense are often of great importance, not only in diseases of the organs themselves, but in central affections. Increased sensitiveness is often due to cerebral disturbance; dulness and loss of sensation are both indicative of morbid change. In one case, however, of a youth the subject of cerebral concussion, the patient could not even see light for about an hour. The condition, however, was transient, and he made a speedy recovery. These remarks apply to both the eye and the ear, but less reliably to the latter, since the changes are more occult. In details there is a close analogy between the two—the flitting motes, the dancing sparks, or the flashing light, and the low humming murmur, the continuous rush, or the intermittent tinkle, as of the sheepbell on the hill-side. It is not uncommon for the imagination to frame ideas out of these definite states of sound, especially in the delirium of the drunkard, and in the dying these assume a character in accordance with the habits, or it may be the hopes and fears, of him who is about to sleep the sleep of death. The arms of some loved and lost friend seem to be waiting to receive the spirit; or the averted eye and horror-struck countenance may be in unison with the terror of the imagined sight of the emissaries of torture.

The senses of taste and smell are still more closely allied and interdependent than those of sight and hearing. It is rare that one organ is troubled without the other being involved. Their functions are often disturbed in diseases deranging the assimilative functions without being specially characteristic. Their successive suspension sometimes indicates the progress of disease within the brain till vegetative life alone survives; or it may be that the intellect is left to watch

unmoved the onward march of advancing disorganisation which marks the degradation of the earthly tabernacle, and calmly to anticipate the moment when the last prop shall be withdrawn from the tottering fabric, and the damp vault's dull gloom shall be exchanged for unbounded liberty and unfading light.

ABSTRACT OF THE

PROVISIONS OF THE SCOTCH REFORM BILL RELATING TO UNIVERSITY ELECTIONS.

All persons who, for the time being, are on the register of the General Council of any one of the Universities of Scotland, if of full age and not subject to any legal incapacity, are entitled to vote for the representative in Parliament.

The General Council is composed of the Chancellor, the members of the University Court, the Professors, the Masters of Arts, and all persons on whom the University has, after examination, conferred the degree of Doctor of Medicine or Science, or Bachelor of Divinity, or of Laws, or of Medicine.

A registration book is to be kept containing the names, addresses, and qualifications of all persons entitled to be members of the General Council of each university.

From this registration book is to be compiled the actual register of voters in the following manner:—First, all persons who are on the present register in virtue of the payment of a composition in lieu of an annual fee; then every qualified person who shall apply for registration and pay a fee of thirty shillings. No further fee will be required, annual or otherwise; and if any one is already on the register by payment of an annual fee, the amount of such fees will be allowed as an abatement from the final fee of thirty shillings. No person who has not made application for registration before October 1 next, and paid his fee, will be entered in the register. On the 21st of the same month the register is to be completed and submitted to the Vice-Chancellor, who is to sign every page of it before the 25th, and the register, thus duly authenticated, is the only list of voters for the ensuing year.

New registers are to be made up every year, the necessary corrections and additions being made. The date of the making up of these future lists is not yet settled, but it will probably be the same as in this year, to be available for the intra-university elections, which take place in the end of October and beginning of November.

Appeals against undue insertions or omissions of names may be made within fifteen days, on or before the day of anthentication of the register; they will be heard by the University Court between thirty and forty days from this time, and the decision of this body will be final. The register may be inspected at all reasonable times, and copies may be made on payment of a shilling for every hundred names copied.

In case of a poll being demanded, votes may be given by voting papers. These voting papers must be signed by the voter in the presence of a justice of the peace, and they must be personally delivered at the University by a member of council specified in the voting paper, who must also make an attestation of his knowledge of the signature. The other provisions concerning voting papers are the same as those adopted in the English Universities, with the exception that the member of council tendering the voting papers is not required to make an attestation of his personal knowledge of the voter signing it.

Improvements in Scientific Studies in France.—These are constantly undergoing development, especially as regards the means afforded for their practical pursuit. For some time past Professor Jamain has had eight or ten young *savants* pursuing their investigations under his guidance, with the aid of apparatus of the most perfect character, at the new laboratory at the Sorbonne. M. Decaisne, Professor of Agriculture at the Muséum, has revived the herborisations which had been neglected since the time of Jussieu, and last Sunday took out forty pupils. M. Milne Edwards, the Professor of Zoology there, besides his public lectures, is to have "conferences" and demonstrations in the special laboratory attached to his chair, for the purpose of initiating students in practical studies.—*Gaz. des Hôp.*, No. 65.

REVIEWS.

A Handbook of Gymnastics and Athletics. By E. G. Ravenstein, F.R.G.S., etc., President of the German Gymnastic Society, London; and John Hulley, Gymnasiarch, of Liverpool. With numerous woodcuts. London: Trübner and Co. 1867. Pp. 408.

Gymnasts and Gymnastics. By John H. Howard. Second Edition, revised and enlarged, with 135 engravings. London: Longmans. 1868. Pp. 300.

No surer sign can be given of the increased practice of athletic exercises amongst us than the appearance of such elaborate treatises as those before us. We have taken occasion heretofore to speak on this subject, and, as our readers may remember, we divided it into three several parts, which require to be dealt with separately—viz., first, training, or that system of living, including air, food, exercise, and sleep, which conduces to the greatest bodily vigour; secondly, the light gymnastics or free exercises, or callisthenics, an elaborate system of drill, tending to give suppleness and elasticity to the figure, to produce a good position and easy gait, and to cultivate dexterity and alertness, and this without the slightest strain or exertion capable of doing injury, all the apparatus used being of light wood.(a) Thirdly, come gymnastics proper, or heavy gymnastics, in which considerable muscular force is requisite, whether by lifting the body itself, or by the use of heavy clubs, dumbbells, and the like.

There can be no denying that the Medical Practitioner ought to be on the alert on this subject, both in order to know what exercises to advise, and to be prepared to treat the consequences of over-straining. There is another reason besides, for gymnastics have been set forth as capable not only of doing what common sense shows they are fit for—viz., promoting muscular development, wind, circulation, and general well-being—but likewise of acting curatively in a great variety of diseases, and the most tedious and irksome set of exercises are submitted to by patients under the so-called movement cure. Messrs. Ravenstein and Hulley have the good sense to repudiate all charlatanism of this kind.

Of the two books before us, that of Mr. Howard is the smaller, and gives a succinct and business-like account of the heavy gymnastics in all branches, the construction and cost of apparatus, the use of apparatus, as the horizontal bar, parallel bars, rings, trapeze, wooden horse, vaulting, climbing, leaping, the use of the storming board, etc. That of Messrs. Ravenstein and Hulley contains a much greater quantity and variety, beginning with free exercises or light drill, then going on to describe every kind of exercise with every possible apparatus—bars, ropes, ladders, poles, climbing, hanging, swinging, etc., together with every game and athletic sport that can be thought of, as cricket, fives, bowls, wrestling, boxing, etc.

There can be little doubt, we think, that the health of a great many of us would be better if a little time and attention were directed, from youth upward, to securing a more equable muscular development. This is particularly the case with regard to the shoulders and chest, which, smaller as they naturally are than the legs, get even less than their proportion of hard work. The horizontal bar, the ladder, and the rope, are things which can be fixed in any nursery, and which (with some amount of instruction from book or master) children can be taught to exercise themselves with. Every narrow chest should be expanded if exercise can do it. But it is not only health, but comfort, which is capable of being improved. Surely it is an advantage to be able to climb up and down a tall ladder, to walk steadily balanced along the top of a wall or along a plank, to climb a tree, and to be able to lift oneself over a wall of moderate height. To be able to hang by the hands from a horizontal bar, or to travel along it, may be means of saving life, especially in the frightful contingency of fire. Mr. Howard says that the French firemen practise assiduously an exercise of this kind, which they call *la persévérance*. They "have a large gymnasium 392 feet round the sides, and around this are a series of horizontal bars or small poles, and it is recorded that one man once walked twice round this gymnasium by his hands on the bars, which was equal to one-seventh of a mile."

(a) Maclaren on "Training," and Madison Watson's greater and lesser "Handbook of Callisthenics" (Trübner), may be referred to on these matters.

GENERAL CORRESPONDENCE.

PHOSPHORUS IN SKIN DISEASES.

LETTER FROM DR. W. H. BROADBENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—As the object I had in view in trying phosphorus in skin diseases was not so much the introduction of a new remedy as the illustration of the proposition that substances chemically similar have similar therapeutic effects, it will be no mortification to me, but the contrary, to find that, as Dr. Thorowgood says, it "is no new invention," and I shall be glad to know where I can see an account of the experience of Dr. Burgess, to which reference is made.

Since my paper for the Medico-Chirurgical Society was written, I have had further evidence of the favourable influence of phosphorus in true constitutional eczema, and I have also found it useful in psoriasis. I have no grounds, however, for pronouncing it superior, or even equal, to arsenic in the treatment of the latter affection. I am, &c.

Seymour-street, June 8. W. H. BROADBENT, M.D.

THE PHARMACY BILL.

LETTER FROM DR. T. REDWOOD.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the remarks you have made in the last number of your journal, at page 582, on the Bill which has been submitted to Parliament by Earl Granville, for regulating the sale of poisons, and amending the Pharmacy Act of 1852, you express the opinion that this measure, were it to become law, would indirectly foster and legalise counter practice among chemists and druggists, and would inconvenience the public by diminishing the number of medicine vendors and dispensers. You also repeat a statement which has previously been more than once made editorially in your pages, to the effect that a very small amount of knowledge and training is required for the qualification of those engaged in the sale and dispensing of medicines, adducing in support of your views on this subject the fact that "the major part of the dispensing of private surgeries and public Dispensaries and Hospitals is at present performed by apprentices and assistants *without qualification*."

These statements, emanating from so high a Medical authority, are calculated greatly to prejudice the cause in which, with many others, I have been actively engaged for the last quarter of a century; and as you speak approvingly of this cause, and "applaud the labours of the Pharmaceutical Society in improving the education and status of its members," I hope you will allow me space in your columns to say that the object of the Bill now before Parliament is to extend to chemists and druggists generally the system of education and examination which has been, as you admit, so successfully and advantageously applied to the members of the Pharmaceutical Society. I think I may safely challenge you to adduce any evidence of this system having contributed in any way to foster counter practice. You must surely be aware that it is not the educated, qualified, and examined pharmaceutists who resort to practices such as you allude to and condemn, but principally the men *without qualification*, who, having been engaged as apprentices and assistants "in private surgeries and public Dispensaries and Hospitals," have acquired a little smattering of Medical knowledge, which, in the absence of any status, either Medical or pharmaceutical, is afterwards turned to account in the objectionable way represented. If it were proposed to give a professional education to chemists and druggists by extending their knowledge in the direction of Medical practice, I should understand the ground of your objection, and be ready to admit its force; but if the education provided by the Pharmaceutical Society has produced a beneficial effect on the members of that Society, I cannot conceive how the extension of the same system to others engaged in similar occupations should be productive of the bad effects you anticipate.

In representing the amount of knowledge required as a qualification for the practice of pharmacy, the terms used are, of course, comparative, and what you designate as little I may consider much; but whatever the quantity may be, I presume you will not deny that, in its absence, much injury may be done by those who place themselves in the responsible position of selling and dispensing for use in medicine such dangerous agents as prussic acid, strychnine, and the poisonous vegetable alkaloids, and it is to substances of this description only that the restrictive provisions of the Bill apply. There is no restriction placed on the sale of ordinary drugs and medicines that are not of a highly dangerous nature, and, therefore, the fear you express that the public would be inconvenienced by the diminution of the number of medicine vendors and dispensers is without foundation. According to the Bill as it stands, any safe medicine may be sold as heretofore by little country shopkeepers, as well as by the class of qualified men to whose safe keeping alone will be entrusted dangerous poisons, and the dispensing of these for use in medicine. I am, &c. T. REDWOOD.

39, Russell-square, June 4.

CONFEDERATE PRISONERS OF WAR.

LETTER FROM DR. P. F. WHITEHEAD.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your journal of the 3rd instant, I notice an article on "Prisoners of War," which, I think, does injustice to the Confederates. I am sure that the horrors of Andersonville cannot be painted too black, and I, as a Medical man, felt that it would be a blot upon us; but, without attempting to palliate the evil charged against us, I wish to make the statement that the mortality of Confederate prisoners in the Northern prisons greatly exceeded the mortality at Andersonville. This is a simple fact which the Surgeon-General of the United States is, or ought to be, perfectly cognisant of; and this, too, when the North was teeming with everything necessary for camp or Hospital. Let British Surgeons remember that the United States authorities made medicines contraband of war, and not the Confederates. I assure you that the Surgeons of the Confederate army did all in their power to mitigate the horrors of the late war.

Hoping that you will insert this or make other notice correcting the previous article, I am, &c.

P. F. WHITEHEAD, M.D.,
late Chief Surgeon Loring's Division, C. S. A.

Vicksburg, Mississippi, United States, May 20.

THE CASE OF THE TWO MEN STRUCK BY LIGHTNING AT EWELL—POST-MORTEM EXAMINATION.

LETTER FROM MR. H. SUTHERLAND.

[To the Editor of the Medical Times and Gazette.]

SIR,—I enclose some notes on the post-mortem examination of one of the men struck by lightning at Ewell. Dr. Stacpoole, of Ewell, was attending the case, and kindly allowed me to assist him at the examination. If you think them worthy of insertion in your valuable journal, I hope you will excuse the rough manner in which I have put them together.

I am, &c.

H. SUTHERLAND,
Student of St. George's Hospital.

6, Richmond-terrace, Whitehall, S.W., June 9.

On May 30, the day of the Oaks, Richard Drapper, publican, aged 41, was driving with four friends in a mail phaeton at Ewell, when a storm came on. Three of the men took refuge from the rain, the other two remained with the horse and trap under a tree, and near a wall. Here both the men and the horse were struck by lightning. One man was killed on the spot. No examination of the body was made. The other man was conveyed to the Green Man public-house at Ewell, where he was put to bed, and the following symptoms were observed:—Hemiplegia of the right side of the body; the face was also affected, and the third nerve was involved. The eyes remained constantly directed to the left, and there was but little motion in them, but vision was not impaired. He was not unconscious, and was able to speak, and put his food into his mouth himself. After lingering for nine days, he died on the morning of the 7th at noon.

Post-mortem Examination Twelve Hours after Death.—The body was well developed; the abdomen slightly distended with wind. The hair of the head was not injured, but that over the pubes was much singed. It appears that the lightning first struck him behind the right ear, and then passed

downwards to the right foot, and there was a broken line of dark red scars extending between these two points. There was a cut behind the right ear, which looked as if it had been made with a knife. There was a row of dark red scars or wheals about half an inch broad down the right side of the neck, which in some places looked like blisters which had burst, and as if they had been made with a red-hot iron. On the chest was a line of smaller scars, which was supposed to have been caused by the heated watch-chain, which must have burnt through the clothes. On the abdomen there was a line of scars extending from a point level with the umbilicus to about three inches below Poupart's ligament. This line was supposed to have been caused by his watch having become red-hot, burnt through the pocket, and run down the thigh. One of these scars was five inches, another three inches long, and both were about two inches broad. From the inside of the right knee down to the inner malleolus was a broken line of scars, the broadest part of which measured about an inch and a half. At the bend of the ankle there was a scar, and the skin was torn. There were no scars below this point. On removing the scalp, patches of ecchymosis were found between the layers of the temporal fascia. A quantity of clotted blood was found effused on the right side of the brain beneath the dura mater, and these clots extended over the middle and posterior lobes. Under these clots the cerebral substance was softened so that it could easily be torn when touched, and blood was effused into it. The congestion extended to the bottom of the sulci. The middle meningeal artery was ruptured, and the lateral sinus on the right side was filled with blood clots and fibrinous deposits. The right lateral ventricle contained a small quantity of bloody serum. There was great opacity of the arachnoid membrane all over the brain, and all the vessels of the pia mater were much engorged. The left side of the brain was then examined, and the lateral ventricle was found to be filled up with a clot of blood about an inch broad, which encroached upon the corpus striatum. The corpus striatum, optic thalamus, tænia semicircularis, roof and sides of the ventricle were so soft that they broke down on pouring water on to them. A clot, which was part of the one in the ventricle, was found in the substance of the optic thalamus impinging on the crus. The fifth ventricle contained some effused bloody serum. The abdomen was not examined.

THE ADJUDICATION OF THE CARMICHAEL PRIZES.

[To the Editor of the Medical Times and Gazette.]

Sir,—The circumstances attending the recent award of the Carmichael Prizes are such as ought not to be passed over in silence. I know absolutely nothing of the rival competitors, or of the merits of the essays for which the prizes have been awarded, and I am therefore not about to call in question the decision of the judges; but there are details connected with this competition which, so far as my own knowledge of similar cases extends, appear entirely unprecedented.

Surely the worthy and liberal founder of these prizes never could have imagined it possible that one of those whom he had appointed adjudicators would be the first to benefit by his legacy. When such an award becomes possible, competition is out of the question, for what men are likely to become candidates for a prize when it is known that competitors may be found amongst their judges? The adjudicators in this case were the members of the Council of the Royal College of Surgeons of Ireland, and Dr. Mapother, who obtains the first prize, is one of their number. The late Sir Astley Cooper, in founding those prize essays which bear his name, and which have done so much towards promoting original research, and in bringing forward rising talent of a high order, knowing the frailty of human nature, took especial pains to frame his bequest in such terms as would prevent any shadow of suspicion or dissatisfaction falling on the adjudicators. I beg to commend the study of those conditions to the members of the Council of the Irish College. Amongst others they will find the following:—"That no Physician or Surgeon, or other officer for the time being of Guy's Hospital or of St. Thomas's Hospital [the Physicians and Surgeons of Guy's and St. Thomas's being the adjudicators], *nor any person related by blood or affinity* to any such Physician or Surgeon for the time being in either of the said Hospitals, shall at any time receive or be entitled to claim the prize." But the award by the adjudicators in this case of the first prize to one of their own body, unsatisfactory in the extreme as it appears to us, is, we regret to say, by no means the worst part of this business. How comes it, we would ask, that we read in the notice issued by the President and Council of the Dublin College of Surgeons in December, 1866, that "on the first Monday in May, in the year 1868, they will proceed to adjudge a prize of *two* hundred pounds for the best essay, and a prize of *one* hundred pounds for the second best essay," etc., whereas the amounts actually awarded were *four* hundred pounds and *two* hundred pounds respectively? Why was this fact, that the amount of the award would be doubled, concealed in the published instructions? It must have been known well enough to the members of the Council, and therefore to Dr. Mapother, the first of the successful candidates. There can be no question but that the culpable concealment of this fact influenced the competition very greatly. It is not to be credited that, if it had been generally known to the Profession that two such handsome sums as £400 and £200 were to be awarded for these essays, only five persons would have been found to compete for them.

It is very much to be regretted that a body of gentlemen in the position of the President and members of the Council of the Irish College of Surgeons should have taken part in the perpetration of an act which appears to possess many of the characters of a job.

Such an occurrence would have been simply impossible in this city. I sincerely regret that it should be possible in Dublin, especially in connexion with the award of prizes for essays which are to show how the Medical Profession may be rendered "a more *respectable* body than it is at present."

London. I am, &c. O.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 26, 1868.

Dr. Meryon, Vice-President, in the Chair.

Dr. George Johnson read

A HISTORY OF SEVEN CASES IN WHICH A MORBID GROWTH WAS REMOVED FROM ONE OF THE VOCAL CORDS BY THE AID OF THE LARYNGOSCOPE.

For the diagnosis and successful treatment of morbid growths within the larynx, the use of the laryngoscope is essential. In several of the cases recorded, the patient had been subjected to a long and fruitless course of medicinal treatment before the nature of the disease was ascertained by the use of the mirror. The instrument used for the removal of the growths is an écraseur. Dr. Thos. J. Walker, of Peterborough, was the first in this country to remove a growth from the larynx by means of a wire loop. An improved écraseur was subsequently made by Messrs. Weiss for Dr. Gibb. The instrument employed by the author is a modification of Dr. Gibb's, made also by Messrs. Weiss. The écraseur is a very soft and harmless instrument. Unlike the laryngeal forceps, it rarely tears the mucous membrane, or seizes any other object than the growth to be removed. The wire imbeds itself in the morbid growth, thus retaining a firm hold, and bringing the pieces away.—Case 1. J. W., aged forty-nine, a cabinet-maker; has had hoarseness for twenty years, during ten of which he was almost constantly taking medicine. A warty growth, the size of a mulberry, on the right vocal cord; nearly the whole growth removed. The voice still feeble and husky, on account of a general roughness of both vocal cords. Case 2. W. F., aged fifty. Feebleness of voice for more than a year. A vascular growth at the anterior insertion of the right vocal cord. This proved to be a cyst, which was ruptured by the wire, and the power and original clearness of the voice were restored.—Case 3. J. G. C., aged fifty-nine. Hoarseness for about nine months. A wart the size of a small pea at posterior end of right true cord. Its removal left a slight thickening at the original seat of the growth. The voice is somewhat gruff and reedy, but much stronger than before. Case 4. J. L., aged twenty-six. Hoarseness for many years, and therefore suspicion of consumption. A wart the size of a small pea near the anterior insertion of the right vocal cord. Complete removal followed by perfect restoration of the voice,

which remains clear and strong.—Case 5. J. W., aged sixty-eight, a Surgeon, had been hoarse for nine months, his voice being extremely feeble. A conical wart, the size of a pea, at the anterior end of the right cord. A small piece was removed by the wire; the growth then rapidly disappeared under the influence of applications of a solution of nitrate of silver. The voice is clear and strong.—Case 6. W. A., aged eight, has been hoarse from infancy, and has had much medical treatment. A wart on the right vocal cord occupied about one-third of the opening of the glottis. The greater part of the growth has been removed, and his voice has become much stronger and clearer; but a small portion of the growth remaining renders him still somewhat husky.—Case 7. A gentleman, aged forty-eight, had suffered discomfort in his throat for twenty years. In May, 1862, Czermak examined him, and discovered a wart on the right vocal cord. Since May, 1866, he has been very hoarse. The tumour was completely removed on January 2, 1868. The voice immediately became clearer and stronger. In a note written on March 20 he says:—"I am happy to say my voice is all that I could wish. You may put me down as a perfect cure." Preparations of the growths removed were exhibited to the Society.

Mr. Wight was glad to bear testimony to the valuable service done him by Dr. Johnson. His uvula had been excised as a preliminary by Mr. Holt. After a time, Dr. Johnston succeeded in snaring the growth, and he had now completely recovered his voice.

Dr. Morell Mackenzie said he had considerable experience in the removal of laryngeal tumours, and in his opinion no single instrument was adapted for all cases. The facility and success of any mode of treatment depended on the origin of the tumour—if pedunculated its removal would be easy, not so if it were sessile. In most instances he thought the forceps most useful; in others, as in cystic swellings, the lancet was best; sometimes, also, the scissors were best. Still, Dr. Johnson's modification was very useful. He had tried crushing with great success—perhaps he ought rather to call it pinching—especially when the tumours were hard or of hard origin, as atrophy followed. In one case the growth was situated under the vocal cord, where he could not get at it; he had, indeed, long thought of operating from below, but one day he managed to seize it, after which it atrophied, and soon disappeared. He congratulated Dr. Johnson on his results, especially in the last-mentioned instance, which had been under his own care. He did not then think it a case for operation.

Mr. Durham thought the instrument ought always to be adapted to the case. The snare was good in many instances, as when the tumour was projecting at right angles from the vocal cords. Often, however, they stood perpendicularly upwards, or upwards and inwards, when it was difficult to place the wire over them. In all Dr. Johnson's cases the tumours had been small. This was a very different condition from that in which the aperture was filled with growths. Then he thought tracheotomy ought to be performed, the larynx laid open, and the growths removed. The day before he had seen a girl on whom he had so operated two years ago. She had then been voiceless for five years, and breathed only by a tracheotomy tube. She could breathe naturally in ten days, and in three weeks was quite well. This, he thought, was better for a child than to have forty or fifty operations, as the proceeding was quite safe.

Mr. Couper felt disposed to agree with Mr. Durham where the tumours were numerous. He had operated in one case the week before, when the patient did well. He used the scissors and forceps, and whereas there were commonly made two stages in the proceeding, the tracheotomy and subsequently the laryngotomy, he performed both at once.

In reply, Dr. Johnson said he thought the snare best adapted for cases where soft warts projected from the vocal cords. The forceps always catch something. One gentleman he had seen was thus torn about.

Mr. Henry Lee read a paper

ON SOME RESULTS OF DISEASE OF THE ARTERIES.

In the last volume of the *Transactions* it had been shown that wounds in arteries were repaired by means of a fibrin-like material deposited from the blood. This material was shown to be rich in globules resembling the white corpuscles of the blood, undergoing division and multiplication. The material which closes a wounded artery was found to consist of these cells and of matter formed from them. In healthy union, only so much of this material was found to be deposited as was necessary to close the wound; but when union was not effected by first intention, then a very much larger quantity of matter might be effused. The author draws a comparison between immediate union and suppuration on the surface of the body, and healthy and unhealthy union of injured blood-vessels. The surplus material not required for union on the surface of the body is thrown off in the process of suppuration. When an analogous action takes place in blood-vessels, the surplus material is liable to become mixed with the blood, and sooner or later to be carried in the course of the circulation. The secondary effects of such a process must be looked for in internal organs when a vein has been the seat of the disease, but in the extremities when the artery of a limb has been similarly affected. Cell growth which has commenced in a vessel by multiplication and subdivision of corpuscles may be continued when the material in which it is taking place has been transferred to a distance. The results of such an action had been traced with regard to the veins, but the results of analogous actions when they take place in arteries had not received a like share of attention. The diseases of arteries consist principally in steatomatous and atheromatous degeneration of their coats. The products of these diseases, when softened, become mixed with blood. But it has been shown that fatty matters circulate with great difficulty through capillary vessels. Some of the fluids poured into the cavities of vessels have the tendency to favour the coagulation of the blood, and in some the débris of the arterial coats themselves may offer impediments to the circulation. These were the conditions under which gangrene of the extremities often presented itself; and to the vitiated condition of the blood, and to its coagulation in the capillary tubes, the author attributed the gangrene in the great majority of cases, rather than to the want of blood, as maintained by the generality of authors, or to inflammation of the arteries, as supposed by Dupuytren. Three cases are detailed, and drawings given of extensive disease of the lining membrane of the aorta. In the first of these the products of the diseased internal coats of the artery appeared to have circulated through the lower extremities without producing any local irritation. In the second the morbid matter had produced coagulation of portions of blood in the aorta itself, and in a much greater degree in the vessels of the right limb, the extremity of which had mortified. In the third case the capillaries only appear to have been obstructed. The mildest form of the disease which the author had witnessed consisted of an affection resembling a very painful soft corn. The cuticle over the part became ragged, and when removed exposed several small black spots on the cutis. Two cases in which this had occurred had been particularly noticed. A case was then given in which nearly the whole of the pancreas and cellular substance between the coats of the gall-bladder were softened and converted into a jelly-like substance. This had occurred in conjunction with very extensive disease of the aorta. Five cases were then referred to of what the author called "chronic local multiple abscesses." In the first of these cases the disease followed the course of the distribution of the fibular artery, and was limited to the outside of one leg. There was here a history of specific constitutional disease. There was no such history in the next two cases, in which the disease was accompanied by considerable enlargement in the popliteal space. In one of these the enlargement had gradually increased for twelve months; in the other it remained up to the time the case was recorded. The fifth case was of interest on account of the disease having apparently been communicated. The products of disease liable to be transmitted through the arteries, and originating in ulceration of their coats, were:—1. Débris of the arterial tissues. 2. Fatty matters in a state of degeneration. 3. Portions of fibrin in which cell development was still going on. 4. Coagula of blood formed in connexion with, or independently of, any of the preceding. The results mentioned as arising from these conditions were:—1. Gangrene. 2. Softening. 3. Solid œdema. 4. Chronic multiple local abscesses.

Mr. Birkett remarked that cases such as those described were common in Hospital practice. The last narrated was the most obscure. Query: Was it syphilitic?

Mr. J. D. Hill narrated some cases of aneurism and other diseases of the arteries, there being in some a syphilitic history.

Mr. Lee, returning thanks, said no doubt syphilis frequently predisposed to disease of the arteries and to ulcerations, but that in no way did away with what he had said. He only contended for the arterial origin of these sores.

OBITUARY.

NATHANIEL BAGSHAW WARD, F.R.S., F.L.S.

THIS highly respected member of our Profession, whose modesty alone prevented his name from attaining such a wide notoriety as that which many inferior to his own have achieved, expired at St. Leonard's on Thursday week, the 4th instant. He had for a considerable period been suffering from serious ill-health, which had prevented him from attending to his official duties or his Professional practice, but up to the last moment he was engaged in the cultivation of his favourite pursuits, and, at the time of his death, was actually drawing up some suggestions with the view of improving the dwellings of the poor by introducing into them objects of natural history. He had attained a ripe old age, as he was in his 77th year, and the peaceful, though sudden, termination of his useful life was a fitting close to his career. Mr. Ward was born in the east of London in the year 1791, his father being at the period a prosperous Medical Practitioner in that locality. The subject of this memoir had at first some idea of adopting the sea as his future profession, and, with that view, he made a voyage to Jamaica at the age of 13, and while in that island the prospect of its exuberant and splendid vegetation inspired him with the intense love of natural history, and especially of botany, which subsequently became both one of the leading passions of his life and the charm and solace of his leisure hours. It does not appear, however, that the love of a sailor's career was enhanced by his youthful voyage, for on his return home he abandoned the sea, and was apprenticed to the Medical Profession. He entered into his Medical and Surgical studies at the London Hospital with the same enthusiastic zeal which he exhibited in all the affairs of life; but botany was, if we may use the expression, the poetry of his existence, and he often rose in the early morning before daybreak to cultivate his favourite pursuit in the vicinity of London, where the wild flowers were not yet, as they are now, obliterated from our metropolitan suburbs by the extension of houses, and he reached home again to begin at the usual hour the ordinary Professional duties which awaited him. After the customary course of study he became a member of the College of Surgeons and of the Apothecaries' Society, and became settled in business with his father, to whose connexion he eventually succeeded, carrying on for a long series of years a very remunerative practice in Wellclose-square. In this locality he held the appointment of Vaccinator to the National Vaccine Establishment, his having been one of the earliest appointments made by that Board.

Those who are acquainted with the position of Wellclose-square will readily understand that it is eminently unfavourable to the growth of flowers, or indeed of any other form of vegetation, and this very circumstance led Mr. Ward's inventive mind to the discovery of the plan by which vegetable productions may be preserved in health and vigour, even in the midst of every unfavourable influence. Not only are they protected by this plan from the soot and smoke of cities and towns, but, what is still more important, they are brought over the sea from distant countries uninjured by the salt water, by the variations of temperature, or by the influence of winds and storms. The principle of what is now known as the "Wardian case" is simple enough, but, as in the instance of many other discoveries, no one before Mr. Ward had thought of it. It consists in securing to flowering or growing plants the influence of light, while it excludes the prejudicial effects of rapid changes of temperature, or of atmospheric impurities. Among the most valuable practical results of the adoption of this principle have been the successful conveyance of more than twenty thousand tea plants in the Wardian cases from China to the Himalayas, where they now grow and flourish with the same luxuriance as in their native climate; and the equally successful transference of the cinchona tree from South America to the Asiatic continent. By the introduction of these cases with their contents into the dwelling-rooms of all classes of society, Mr. Ward may be said to have done more than any other natural st in diffusing a love of natural history among the population.

Mr. Ward was a Member of the Society of Apothecaries of London, and he filled in succession nearly all of its important offices, having been Master of the Society in 1854, and having subsequently, and until a very recent period, filled the office of Treasurer, which his failing health obliged him to relinquish. But Mr. Ward was far better known in the Society as the strenuous advocate of all scientific progress, and in the management and improvement of the Society's garden at Chelsea, and in promoting the cultivation of botany he was especially and eminently conspicuous.

The Microscopical Society of London originated in a small meeting of friends, the chief members of which were Mr. Ward, the late Mr. Edwin Quekett, Dr. Bowerbank, and one or two others; and the last-named gentleman, who is living at St. Leonard's, was in close and friendly communication with Mr. Ward up to the time of his death.

Mr. Ward afforded an eminent example of a man who knew how to combine the habits of a scholar and the tastes of a naturalist with the diligent and successful pursuit of the Medical Profession. He had one of the most lucrative practices in the east of London, and yet he found time to cultivate his botanical and microscopical studies, and to keep up his acquaintance with classical literature, both ancient and modern. It may be said of him with perfect truth that he was one of the most accomplished botanists of the age, and his residence on Clapham-rise, where he latterly resided, contained, and still contains, one of the most complete collections of plants, both living and preserved, that any private gentleman ever collected in so small a space, and he was accustomed to receive with a courteous hospitality all those who visited this most interesting and extensive repertory.

Mr. Ward was a man of robust frame, and of commanding and dignified appearance. We have already alluded to his modesty, which prevented him from placing himself so much before the public as he might, and perhaps ought to have done, and even the exposition of the principle of the Wardian cases, delivered at the Royal Institution, was made by his son, Dr. Stephen Ward. But Mr. Ward was himself an excellent and fluent speaker, and, as we have intimated, his mind was stored with abundant materials, both literary and scientific. To those who had the good fortune to enjoy the pleasure of his acquaintance, Mr. Ward's loss is a severe one. His remains were interred in the Norwood Cemetery on Wednesday last in the presence of his relations and of numerous friends who had assembled to pay the last tokens of respect upon the occasion. He lived the life of a useful member of society, of a philosopher, and of a scholar, and he died the death of a Christian, and we may all hope, in the language of the "good book," that our "last end may be like his."

"Multis ille bonis
Flebilis occidit."

NEW BOOKS, WITH SHORT CRITIQUES.

The Essentials of Modern Medicine and Therapeutics. By Alfred B. Garrod, M.D., F.R.S., Professor of Materia Medica, King's College, and Physician to King's College Hospital, London, etc. London: Walton. Pp. 479.

*** Each successive edition of this popular text-book has seen important changes and improvements. The present volume is for the second time altered in form, and increased in size; the type is also changed, and the chemical part of the work, into which some errors had crept, has undergone careful revision. Any equations are written in the new notation. The most important and most valuable changes, however, are in the portions relating to the actions of remedies, which have been considerably enlarged, and greater clearness incurred. At the end of the volume we now find a short article on therapeutics, and the various remedies classified according to their uses. This we consider a very great practical improvement. Some guide to the student and young Practitioner was wanting, and the part now added will supply the desideratum. Perhaps, indeed, it might have been made longer with advantage, but the author has wisely studied brevity in all parts of the volume.

The Medical Profession and its Educational and Licensing Bodies. By E. D. Mapother, M.D., Professor of Anatomy and Physiology Royal College of Surgeons, etc. Dublin: Fannin and Co. Pp. 227.

*** To this essay the Royal College of Surgeons of Ireland have assigned the first Carmichael Prize. Whether Dr. Mapother, himself a member of the body called upon to adjudicate the prize, should have come forward as a competitor we will not now discuss. Of the work itself, we can only say that it is pleasant, but slight. Sketches of the different bodies were scarcely wanted. Probably, also, Dr. Mapother did right to confine his remarks for the most part to the Dublin School, being best acquainted with it, but the value of the work, and its cosmopolitan character, cannot thereby fail to suffer. Another noticeable feature is the tendency to quote the words of Mr. Carmichael whenever that is possible, as well as to assign pre-eminent qualities to the present officials at the College of Surgeons. These are flaws, but, take it as a whole, the book is a fair one. It contains nothing very new or original, but it gives a pleasant enough sketch of our Professional status. The information it contains as to Ireland will be of value to those who have been educated in the sister island.

Half-yearly Compendium of Medical Science. Part I. January, 1868. Philadelphia: Published by the Proprietors.

*** This half-yearly volume, edited by Drs. Butler and Brunton, promises to be useful; it takes up a greater variety of subjects than our own Ranking or Braithwaite, but is not for a moment to be compared with the great work edited by Virchow, Hirsch, and Gurlt.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Directeur de la Rédaction le Dr Jaccoud. Tome huitième. Clav—Comp. Paris: J. B. Baillière et Fils

New Dictionary of Practical Medicine and Surgery. Edited, in conjunction with many collaborateurs, by Dr. Jaccoud. Vol. VIII. Clav—Comp. Paris: Baillière. Pp. 801.

*** Gradually this ponderous work on Medicine is making its appearance; to what dreadful extent it must reach is evident, since the eighth volume only deals with subjects included between "Clavicle" and "Compression." It is, in fact, the great fault of such works that one part is antiquated before another sees the light, and we fear the present undertaking will afford us no opportunity of proving the rule by an exception. In the meantime, the articles as they appear are admirable, constituting, in reality, exhaustive treatises on each subject. The present volume is for the most part occupied by two great articles on climate and the heart in all its relations, normal and abnormal, the one by Jules Rochard, the other by Maurice Raynaud.

Treatise on the Diseases of the Eye, including the Anatomy of the Organ. By Carl Stellway von Carion, M.D., Professor of Ophthalmology in the Imperial Royal University of Vienna. Translated from the third German edition and edited by Charles E. Backley, M.D., and D. B. St. John Roosa, M.D., of New York. With appendix by editors, with 96 woodcuts and 18 chromo-lithographs. London: Robert Hardwicke. 1868. Pp. 774.

*** A very closely printed, voluminous, and complete treatise. The editors' appendix describes the method of ophthalmoscopy and the use of test-types.

The Surgical Treatment of the Diseases of Infancy and Childhood. By T. Holmes, M.A. Cantab., Surgeon to the Hospital for Sick Children, etc. London: Longmans. 1868. Pp. 648.

*** This book has about 100 woodcuts and 10 coloured illustrations, and that great element for the reader's comfort, a good and full index. It begins with malformations, takes injuries next, and diseases last. We must give a full review of it shortly. Amongst bits that we have dipped into we may specify nævus, vaccino-syphilis, and tracheotomy as bearing the marks of great good sense and prudence.

Bandages and Splints. By W. Fairlie Clarke, M.A., F.R.C.S., Surgeon to the West London Hospital, etc. 12mo. London: Renshaw. Pp. 112.

*** Intended to give an account of the bandages and splints in most frequent use at the present day, and specially adapted for students preparing for examination at the Royal College of Surgeons, who must, in compliance with recent regulations, show a practical acquaintance with the application of Surgical apparatus. It is illustrated by plenty of clear, rough diagrams.

Electro-Physiology and Therapeutics; being a Study of the Electrical and other Physical Phenomena of the Muscular and other Systems during Health and Disease, including the Phenomena of the Electrical Fishes. By Charles L. Morgan, A.B., M.D. New York: W. Wood and Co. 1868.

*** We learn from the preface that the author died soon after he finished his work, and before it was printed. The proof sheets were revised by Dr. W. A. Hammond, who says, with apparent truth, that "there is nothing in the English language which at all approaches this work as regards the scientific treatment of the whole subject of electricity."

MEDICAL NEWS.

Royal College of Surgeons of England.—The following members of the College, having undergone the necessary examination for the Fellowship, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 11th inst. were admitted Fellows of the College:—

Adams, Matthew Algernon, Middlesex, diploma of Membership dated July 15, 1859, of Guy's Hospital.
Bell, Hutchinson Royes, Harley-street, November 19, 1863, of King's College.
Bensley, Edwin Clement, Her Majesty's Indian Army, November 5, 1858, of St. Thomas's Hospital.
Cornish, William Robert, Her Majesty's Indian Army, December 17, 1858, of St. George's Hospital.
Foster, John, Bradford, Yorkshire, July 19, 1859, of the Leeds School.
Grose, Samuel, Royal Marines, April 11, 1859, of St. Thomas's Hospital.
Haward, John Warrington, Westminster Pier, May 7, 1858, of St. George's Hospital.
Howse, Henry Greenway, Maze-pond, January 25, 1865, of Guy's Hospital.
Jessop, Thomas Richard, Leeds, July 19, 1859, of the Leeds School.
Nicholls, James, Chelmsford, October 15, 1852, of St. George's Hospital.
Palmer, William John, Her Majesty's Indian Army, June 17, 1859, of King's College.
Pollock, Edward James, Old Cavendish-street, July 30, 1858, of King's College.
Procter, William Birket, Bradford, Yorkshire, May 7, 1854, of the Middlesex Hospital.
Sykes, John, Leeds, May 8, 1856, of the Leeds School.
Waystaffe, William Warwick, Kendal, Westmoreland, April 29, 1858, of St. Thomas's Hospital.
White, George Farr, Ryde, Isle of Wight, July 10, 1857, of University College.

It is stated that all the candidates were successful.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 4, 1868:—

Beard, William Henry Hewson, St. Kitts, West Indies.
Dransfield, Francis Mountain, York, Yorkshire.
Hargreaves, James Walter, Rochdale, Yorkshire.
Sanders, Herbert, 21, Westmoreland-road.
Wharton, Joseph, Otley, Yorkshire.

The following gentleman also, on the same day, passed his First Examination:—

Bell, Alfred James, King's College Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Harrison, Reginald, F.R.C.S.—Assistant-Surgeon to the Liverpool Royal Infirmary.

MILITARY APPOINTMENT.

Howard, John William, M.R.C.S., to be Visiting Surgeon, under the Contagious Diseases Act, 1866, at Sheerness.

BIRTHS.

Cowan.—On April 3, at the Green Mountain Hospital, Ascension, the wife of Michael W. Cowan, M.D., Surgeon, R.N., of a daughter.

Hooper.—On May 21, at Quebec, the wife of Surgeon Alfred Hooper, 50th Regiment (Cambridgeshire), of a son.

Simms.—On June 3, at 46, Wimpole-street, the wife of Dr. Frederick Simms, prematurely, of a daughter.

Wood.—On June 5, at Berkhamstead, Bucks, the wife of Frederick J. Wood, M.R.C.S., of a daughter.

Young.—On June 1, at Bridgnorth, the wife of H. J. Young, M.D., of a daughter.

MARRIAGES.

Burge—Edger.—On June 3, at St. Stephen's Church, Hammersmith, by the Right Rev. George Smith, D.D., late Lord Bishop of Victoria, Hongkong, assisted by the Rev. W. L. Collett, Frederick John Burge, jun., L.R.C.P. Lond., of Stowe Lodge, Shepherd's-bush, to Virginia (Nina), eldest daughter of the late J. F. Edger, Esq., Member of the Legislative Council of Hong-kong.

Caillard—May.—On June 3, at St. Mary's, Eastbourne Old Town, Alfred, younger son of C. Camille Caillard, Esq., of Leicester, to Edith, only daughter of the late William Henry May, M.R.C.S., of St. Martin's, Leicester. No cards.

Fisher—Fitzpatrick.—On June 9, at All Saints, Kempston, Bedfordshire, James, youngest son of the late George Fisher, Esq., of Cambridge, to Caroline, youngest daughter of the late Nicholas Fitzpatrick, Esq., M.D., of the Lodge, Bedford, sometime of the Royal Artillery.

Jackson—Gilbert.—On June 3, at Rainham, Kent, Thomas Thompson Jackson, of Neyland, Pembrokeshire, to Caroline, youngest daughter of the late Thomas Gilbert, Esq., Surgeon, Brompton, Kent. No cards.

Lewis—Patten.—On June 4, at St. Giles's Church, Camberwell, Charles Gray Montgomery Lewis, M.R.C.S., of Wingham, Kent, to Emma, younger daughter of Edward Henry Patten, Esq., of De Crespigny-park, Denmark-hill. No cards.

Martin—McKechnie.—On June 6, at St. Peter's Church, Norbiton, Kingston-on-Thames, Thomas John Henry Martin, Esq., M.D., of Cambridge House, Portsmouth, to Mary Jane, only daughter of the late Alex. McKechnie, Esq., M.D., R.N., Inspector-General of Hospitals and Troops. No cards.

Saintsbury—King.—On June 2, at Christ Church, Frecmantle, George Edward Bateman Saintsbury, Esq., of 34, Pembridge-villas, Bayswater, to Emily Fenn, only child of William King, Esq., Surgeon, of Stockwell, Surrey. No cards.

DEATHS.

Holman, Thomas, M.R.C.S., L.S.A., the beloved son of George Holman, Esq., Surgeon, of Uckfield, Sussex, after a long illness, on June 2, at Ivy House, Uckfield, Sussex, aged 27.

Potter, Henry Glassford, F.R.C.S., F.L.S., F.G.S., etc., formerly for many years Surgeon to the Infirmary, Newcastle-on-Tyne, on June 3, at Brighton, of bronchitis, aged 58.

Robertson, Anne, wife of Andrew Robertson, M.D., of Hopewell, her Majesty's Commissioner, Balmoral, at Indigo, Aberdeenshire, on May 30.

Ward, Nathaniel Bagshaw, M.D., F.R.S., F.L.S., of The Lees, Clapham-rise, on June 4, in his 77th year. Friends will please accept this intimation.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Dorchester Union.—Mr. Thomas C. Wellesley, as Medical Officer of the First District; area, 11,[illegible] acres; population, [illegible]; salary £67 5s. per annum. Also the Workhouse; salary £30 per annum.

Hitchin Union.—Mr. Frederick Pipkin, as Medical Officer of the Eighth District; area, [illegible] acres; population, [illegible]; salary £[illegible] per annum.

APPOINTMENTS.

Bedford Union.—[illegible] Alexander, B.A., M.B. St. And., M.R.C.S.E., to the Third District.

Ingleton Union.—H. De Rin[illegible], L.R.C.S. and L.R.C.P. Edin., M.R.C.S. Ire., to the Sixth District.

Chesterton Union.—[illegible] Cambridge, M.R.C.S., L.R.C.P., to the Workhouse.

Hitchin Union.—[illegible] C[illegible], M.R.C.S., L.S.A., to the Second District.

[illegible] Union.—[illegible] B. Pe[illegible], M.R.C.S., L.S.A., to the [illegible] District.

[illegible] Union.—F. W. S. Pearse, L.R.C.P. Edin., M.R.C.S.E., to the [illegible] Second District.

Stratford-on-Avon Union.—James Arthur, M.R.C.S.E., L.S.A., to the Wootton Wawen District.

Wimborne and Cranborne Union.—Samuel F. Underhay, M.R.C.S.E., L.S.A., to the Fourth District.

UNIVERSITY OF EDINBURGH.—The following paragraph appears in the *Scotsman* of June 10:—"At a meeting of the majority of the Curators, it has been agreed—though not, of course, legally or irrevocably—to appoint Professor Sir James Y. Simpson to the office of Principal of Edinburgh University." We believe the announcement to be perfectly genuine. The election of Professor Simpson may be therefore looked upon as tolerably certain, although the appointment cannot be legally made until the meeting of Curators, which takes place in a few days.

POOR-LAW MEDICAL SERVICE.—The office of Medical Officer to the males in St. Pancras Workhouse is vacant through the resignation of Mr. Platt, who is about to undertake other duties. There is a notice of motion on the agenda that the salary in future be £150 per annum instead of £100, and candidates to be under 25 years of age.—In accordance with the wishes of the Poor-law Board, the Shoreditch Guardians have unanimously determined to appoint a Dispenser for the Workhouse to make up the medicines for the Medical officer, who, without such aid, could not efficiently get through the work, having upwards of 170 sick, acutely ill, to attend to, besides a large number of infirm and bedridden inmates and the imbeciles.—The Hackney Board of Guardians, after a careful hearing of the case, have decided that there was no ground whatever for the charge brought by a pauper against Dr. Jarvis of neglect of duty. The hearing of the case elicited high commendations of Mr. Jarvis's general conduct. Mr. Runtz, representative of Hackney at the Metropolitan Board, said that when the cholera was raging the Doctor was one of their most efficient Medical officers.

DR. BALLARD'S nine aphorisms on the influence of weather upon sickness are thus given in his recent Report on the Health of Islington for 1867:—"1. That an increase of atmospheric temperature is normally associated with an increase of general sickness. 2. That a decrease of atmospheric temperature is normally associated with a diminution of general sickness. 3. That for the most part the increase or decrease of sickness is proportional in amount to the extent to which the atmospheric temperature rises or falls. 4. That it is an error to suppose (as is popularly held) that sudden changes in temperature are (as a rule) damaging to public health. A sudden change from cold to hot weather is indeed very damaging; but a sudden change from hot to cold is one of the most favourable circumstances that can occur when sickness is regarded broadly as respects a large population. 5. That, remarkably enough, these influences are most marked in the directions I have mentioned in the colder seasons of the year, and more certain in the winter than in the summer. 6. That rises and falls of temperature are more certain and effectual in their special operation upon public health when at the same time the daily range of temperature is lessened, than they are when the daily range is at the same time increased; rises of temperature increasing sickness more certainly and markedly, and falls of temperature decreasing it more certainly and markedly. 7. That a fall of rain lessens sickness generally, sometimes immediately, sometimes after a short interval, and that, as a rule, the reduction of general sickness is greater when the fall of rain is heavy than when it is light. 8. That drought, on the other hand, tends to augment general sickness. 9. That wet weather in the summer season operates more certainly in improving public health than it does in the winter season."

BERLIN REGISTRATION RETURNS, 1867.—During 1867 there were 27,061 births, and 19,994 deaths, and as the population of the city was returned by the census of last December at 702,437, this gives a birth per 2595, and a death per 3513 inhabitants, or 3·85 births and 2·84 deaths per cent. The number of children born dead amounted to 1150, and 920 perished from debility soon after birth. Among the principal causes of deaths there were 120 from puerperal fever, 364 scarlatina, 40 measles, 151 pertussis, gastro-nervous fever and typhus 538, diarrhœa and dysentery of children 2178, angina 291, croup 184, inflammation of air-passages, 384, pleurisy and pneumonia, abdominal inflammation 216, tetanus 275, laryngismus stridulus 24, convulsions in children 1319, apoplexy 982, phthisis 2500, marasmus 1473.—*Berliner klin. Woch.* No. 17.

COLLEGIATE RESIGNATIONS.—We learn that at a meeting of the Council of the Royal College of Surgeons on the 11th inst. a letter was read from Mr. Joseph Hodgson, stating it was not his intention to offer himself for re-election as a member of the Council. Another letter from Mr. James Luke was read, resigning the offices he held as a member of the Court of Examiners, and also as a member of the Board of Examiners in Dental Surgery. An early meeting of the Council will be called to elect an Examiner, so that the newly-elected gentleman may enter on his duties at the forthcoming examinations in July. Already, in anticipation of the above event, several probable candidates have been named, and, in deference to the strongly expressed opinions of the Profession generally, it is stated that a gentleman not at present on the Council will receive a majority of the votes—indeed, the names of two distinguished teachers of anatomy, candidates for seats in the Council, have been mentioned, and, if either should be elected, it will no doubt materially assist him to a seat in the Council. The gentlemen alluded to are Messrs. Holden, of St. Bartholomew's, and Humphry, of Cambridge. There is no doubt about one of these gentlemen being elected to fill the new chair of Professor of Anatomy. Mr. Samuel Lane, the member of the Council next in the order usually prescribed, has been one of the most successful teachers in London, and is Surgeon to St. Mary's Hospital.

THE *Wiener Wochenschrift* contains an account, by Professor Billroth, of a patient who died under chloroform. He was a labourer, of 26 years, who had hurt his finger by a piece of china. The patient had a very anæmic appearance, and said that the wound had been bleeding very much. The wound was inflicted on the radial side of the metacarpo-phalangeal joint of the fourth finger. The arteria digitalis was bleeding, and when a ligature was put round it the patient complained so very much of pain—probably from the nerve having having been cut through and lying open—that Professor Billroth considered it necessary to administer chloroform. Every precaution was taken as usual, but after five minutes' inhalation the patient began to tremble over his whole body, and was attacked with convulsions. Administration of chloroform was therefore interrupted, but after a few minutes continued again. On examining the wound, Professor Billroth was astonished to find that the artery had ceased bleeding; but at the same time the patient's face was observed to be deadly pale, the lips livid, respiration weak. The patient's mouth was opened by means of Heister's speculum; and, though the pulse was excessively weak, respiratory movements were still perceptible, but soon after the pulse could not be felt any more. A trial to introduce the larynx-catheter was given up because of contractions of the hinder muscles of the tongue and the upper muscles of the pharynx, and tracheotomy was performed. Three times the patient gasped for air, but, in spite of all manipulations, could not be brought to life again.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN MAY, 1868.—The following are the returns of the Metropolitan Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required to Oxidise Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	22·00	0·063	0·100	0·007	13·0	3·5
West Middlesex	21·47	0·072	0·120	0·002	13·0	4·0
Southwark & Vauxhall	21·33	0·055	0·090	0·005	13·0	4·0
Chelsea	21·67	0·073	0·075	0·005	13·0	4·0
Lambeth	22·27	0·084	0·105	0·008	13·5	4·0
Other Companies.						
Kent	28·50	0·107	0·190	0·002	17·5	7·0
New River	19·13	0·036	0·068	0·006	12·5	3·0
East London	21·25	0·075	0·090	0·006	15·0	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours, and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

HYPEROSTOSIS OF THE ENTIRE SKELETON.—Professor Friedreich, of Heidelberg, observes that cases of hyperostosis of single bones or of groups of bones, such as those of the face, skull, or pelvis, are common; but instances where nearly or quite all the skeleton is involved are extremely rare. Saucerotte describes a case in which the weight of a man increased

from 119 to 178 pounds, although the soft parts were wasting. W. H., a shoemaker, aged 26, came to Professor Friedreich's clinic in May, 1867. In 1859 he observed, without obvious cause, one of his feet, and gradually the leg, to become thicker, and about two years later both hands underwent considerable enlargement. On admission, the hands, feet, and legs presented an elephantine appearance, and on feeling the parts, the enlargement was found to depend upon increase of bone. The phalanges and metacarpal and metatarsal bones were enormously thickened. The enlargement was especially great at the epiphysis end of the bones, although the diaphyses were also in a monstrous condition—the greatest amount of hyperostosis being observed at the wrist, ankle, and patella, this last remaining movable. The bones of the thigh and humerus were less enlarged; and, indeed, all the bones of the skeleton participated more or less in the changed condition—the crista ilii, the ribs, and the spinous processes of the lower cervical and upper dorsal vertebræ being all excessively enlarged. The clavicles were double their normal circumference. Among the bones of the face, the zygoma, palate bones, and the alveolar processes were by far the most affected, the teeth having undergone no change. The hyoid bone was remarkably broad and thick. The vault of the cranium exhibited no deformity, and there were no irregularities or exostoses on the smooth surfaces of any of the bones of the body. Some measurements may give a more exact idea of the case. In a total length of the body of 167½ centimetres, the plantar surfaces on each side measured 11 centimetres across. The circumference of the leg at the ankle measured 37; that of the wrist 24. The circumference of the right knee was 44, and of the left 37. The breadth of the tibia was 7½, and of the clavicle 3. The cartilaginous structures participated to a considerable extent in the hypertrophy, as in the ear, tarsus, epiglottis, and in a less degree the vomer. The cartilages of the larynx and the rings of the trachea had undergone no change. The nails had attained a colossal size, those of the thumbs measuring 3½, of the middle finger 2⅓, and of the great toe 4 centimetres. The skin of the body was somewhat hard, and the muscular tissue flabby. The patient introduced to the Professor as remarkable a case as his own in the shape of his brother, aged 22, who, in his 17th year, had also begun to observe the same changes. We need not repeat the description of the changes, which, although existing in a somewhat less degree at present, were no less universal and remarkable. The elder brother's case is illustrated by a photograph.—*Virchow's Archiv*, April 8, B. 43, p. 85.

Case of Derangement limited to a single Moral Sentiment occurring periodically, the Patient being in a Perfectly Normal Condition during the Intervals.—(By Samuel Jackson, M.D., Emeritus Professor of the Institutes of Medicine in the University of Pennsylvania, etc.) In May of 1833, I joined a party of relatives and friends who were making a tour to the Southern States; we stopped in Baltimore for a night; in the evening I was consulted by the wife of one of the gentlemen, Mr. D., respecting a peculiar disease with which he was affected. For three years every alternate Wednesday he was morally prostrated from a loss of his self-esteem, believing himself to be unworthy as a husband, or the father of his children, or a member of society. This condition continued for a week, and on the ensuing Wednesday he awoke restored to his natural character, associating with his family, attending to his official duties, receiving and visiting his friends; all of which he refused to do when under the influence of his disease. In his natural character he was remarkably mild, affable, pleasant, easy in circumstances, holding the respectable office of clerk in a United States District Court; mingled in the best society; was happy in his conjugal relations, and his children were of fine promise. Without any apparent cause, being perfectly well when he went to bed, he awoke one morning with a total loss of his self-esteem, as before described. His desire was to be left entirely alone, he refused to mingle with his family, would not receive or visit his friends, or attend to his office; he would go out for exercise only after dark, so as not to be recognised. From this period such had been the tenor of his life for three years, during which time he had visited Europe for several months, to obtain any benefit which might arise from change of scene and for the purpose of obtaining Medical advice. He returned home unchanged in his state; one week was passed under the moral depression of a supposed state of degradation, the other in his natural character. Early in May next year he had an unusually violent attack; when it had passed away he expressed a desire for me to procure him a room where he could be left alone with books and papers, as the presence of his wife and the people of the house increased his moral distress and mental depression. This arrangement was made, and a room procured in the vicinity of the city, but was rendered unnecessary by the sudden cessation of the paroxysms, which, from this time, returned only at long intervals and for a short time. He continued, with the exception mentioned, in his normal character through the whole summer and until the beginning of the next winter. In the latter part of August he visited Cape May, where he made many friends by his affable deportment, and at a political meeting held there he was nominated as chairman and made a speech on the occasion. This circumstance is mentioned to show how complete was his restoration. In the course of two or three months after his return home, he awoke one morning with an attack of mental derangement. In a few days it was found necessary to send him to the asylum at Charleston, Mass., where he died in the course of three or four weeks. I received a letter from his father communicating the result of a post-mortem examination of his brain. The lesion, if it may be so termed, was confined to the arachnoid membrane, at the vertex of the brain, immediately under the depression in the skull; it was thickest in the centre, gradually diminished, and ceasing at some little distance from it. This case, it appears to me, establishes two important facts: the first, the independence of the moral sentiments in a manner similar to that of the mental faculties is, I think, demonstrated by the fact of a single moral sentiment being diseased for nearly four years; the second, that, in monomania, intermissions may occur.—*From the American Journal of the Medical Sciences.*

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

[redacted]

into this error.

[redacted]

following sentence, which appeared in our journal for last week, in the [redacted] remarks on English chemists, he should give more prominence to the labours of Stenhouse and Sheridan Muspratt than to those of Playfair, [redacted]

complain are those who, having done as much, or more, to advance [redacted]

[redacted] of nonsense is, I fear, uttered in this land of England about induction and deduction. Some profess to befriend the one, some the other, whilst the [redacted]

it presented on being poured from one vessel to another had attracted his [redacted] by Dr. Gamgee. The quantity of urine was divided into two portions, one [redacted] without giving any appearance of deposit. The other portion was subjected to the following experiments, with the results given:—

1. Boiling caused the gummy character entirely to disappear.

[redacted] similar effect.

[redacted] did not precipitate.

[redacted] on the addition of about nine times the bulk of distilled water.

5. Liq. hydrarg. bichlor. produced an abundant white precipitate.
6. A solution of subnitrate of mercury (sp. gr. 1·41, Von Neubauer and Vogel, p. 69) gave the usual intense red colour.
7. Acetate of lead gave an abundant white precipitate.
8. Chlorine water caused a white turbidity.
9. Slow evaporation gave a small amount of elastic yellow residue, which burnt with much the same smell as albumen gives.

The part which was set aside was boiled and again allowed to stand in the conical glass for some hours, when an abundant deposit was found of dumbbell and octahedral crystals of oxalate of lime, and the common brown carbonate-of-lime bodies. The urine was very faintly acid.

I have recently met with a case of oxaluria in a woman in middle life, where, I am satisfied, the same body was present in the urine, but to a much less extent.

Wakefield, June 4.

The Ophthalmoscope in Pyæmia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have twice seen swollen optic discs in cases of pyæmia. One case is recorded—*Lond. Hosp. Reports*, vol. iv. p. 390. I wish to ask ophthalmic Surgeons of this Association to inquire. It will be necessary, I presume, to examine the eyes towards the end of the case. I do not suppose that there are any ophthalmoscopical appearances characteristic of pyæmia. I have found similar appearances in cases of tubercular meningitis in an adult and in a case of syphilitic disease at the base of the brain.

I am, &c. J. Hughlings Jackson.

Hysterical Aphonia

By Dr Treutler, of Kew-gardens.

About two years ago I was asked to see a lady who, I was told, had "lost her voice." When I saw her the voice was reduced to the merest whisper. She had been subject to similar attacks for several years before her marriage, five years ago. They came on without any warning, at any time of day or night, and lasted sometimes three or four months—on one occasion, indeed, a whole year—generally five or six weeks, and never less than a fortnight. She had applied to Medical men both in London and the provinces, and used numberless remedies, without benefit. Indeed, she stated that she had once been induced to try homœopathy, and that it had "seemed" to do her most good. There was no pain or any other symptom beyond the mere loss of voice. The present attack came on two days ago. From inquiries I made, I was led to look upon the aphonia as arising from some obscure ovarian irritation manifesting itself in the organs of the voice. I accordingly prescribed some pills as follows—Moschi, assafœtidæ, ext. valerianæ, ää gr. j.—one such pill to be taken night and morning. The next day her voice was completely restored, much to her surprise and delight. I advised her to have recourse to the pills whenever in future she felt her voice failing, and she has repeatedly done so, with the effect of completely warding off every attack since. A young lady, a sister-in-law, aged 17 years, who was staying with her before and at the time I saw her, had lately begun to lose her voice in a similar manner (by hysterical instinctive imitation?), and she too has used the above remedies with uniform success. The above case illustrates well the importance of looking and searching for the remote and distant causes of many affections which at first appear to be either superficial or purely local. This lady's throat had been douched with nitrate of silver, blistered externally, leeched, etc., and even the actual cautery had been proposed, but wisely declined, notwithstanding all which the attacks of aphonia continued obstinate and unyielding, and yet they readily gave way upon their true cause being discovered.

COMMUNICATIONS have been received from—

Mr. Lawson Tait; Dr. James Sawyer; Dr. George Kennion; Dr. P. F. Whitehead; Dr. Arthaud; Messrs. A. and C. Black; Mr. S. E. Solly; Mr. F. J. Bovell; Dr. Broadbent; Mr. H. Sergeant; Mr. Treutler; Mr. H. Sutherland; Dr. Mackenna; Dr. Muspratt; Dr. Pomiers; Dr. T. R. Fenta; Dr. Morrell Mackenzie; Mr. J. Chatto; Dr. Hughlings Jackson; Dr. Wilks; Dr. Semple; Mr. Gower; Dr. Cholmeley.

BOOKS RECEIVED—

Cazenave on the Skin—Dale's Compendium of Practical Medicine—The Pollution of the Rivers of the Kingdom.—Marques on Syphilis—Addison's Published Writings, by Wilks and Daldy.

NEWSPAPERS RECEIVED—

Chelmsford Chronicle—Dudley Guardian—Medical Press and Circular.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 6, 1868.

BIRTHS.

Births of Boys, 1042; Girls, 974; Total, 2016.
Average of 10 corresponding weeks, 1858-67, 1823·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	599	561	1160
Average of the ten years 1858-67	578·0	577·9	1155·9
Average corrected to increased population	..	..	1249
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa	Cholera.
West ..	463,388	1	6	8	6	6	4	6	..
North ..	618,210	8	8	13	5	11	12	4	..
Central	378,058	1	6	3	..	1	2	2	..
East ..	571,158	3	22	5	..	14	10	5	..
South ..	773,175	3	17	12	1	15	6	10	1
Total ..	2,803,989	16	61	41	12	47	34	27	1

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·919 in.
Mean temperature	58·6
Highest point of thermometer	78·4
Lowest point of thermometer	44·7
Mean dew-point temperature	50·8
General direction of wind	Variable.
Whole amount of rain in the week	0·14

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 6, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending June 6.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending June 6.	Temperature of Air (Fahr.). Highest during the Week.	Temperature of Air (Fahr.). Lowest during the Week.	Temperature of Air (Fahr.). Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126035	40·1	2016	1441	1160	78·4	44·7	58·6	0·14	14
Bristol (City)	167487	35·7	81	75	62	..	..	..	..	..
Birmingham (Boro')	352296	45·0	257	171	117	74·4	42·5	56·7	0·09	9
Liverpool (Borough)	530676	98·0	354	290	245	73·0	46·6	55·9	0·05	5
Manchester (City)	360855	81·8	220	208	1160	80·0	39·0	57·2	0·02	2
Salford (Borough)	117162	22·7	68	59	65	74·8	37·8	54·5	0·04	4
Sheffield (Borough)	232462	10·2	179	122	109	73·0	43·0	56·7	0·05	5
Bradford (Borough)	108019	16·4	100	55	75	..	..	..	..	..
Leeds (Borough)	256746	11·0	264	120	96	75·0	46·0	56·0	0·00	0
Hull (Borough)	108269	30·4	81	50	57	74·0	43·0	54·5	0·29	29
Newcastl-on-Tyne, do.	127701	23·9	76	68	46	69·0	44	53·3	0·04	4
Edinburgh (City)	177039	40·0	152	87	63	68·7	45	56·3	0·00	0
Glasgow (City)	449808	88·9	391	262	253	65·9	43·2	53·4	0·21	21
Dublin (City and some suburbs)	319985	32·8	194	157	156	71·4	40·2	56·0	0·14	14
Total of 14 large Towns	6391089	34·7	4453	3163	2664	80·0	37·8	55·8	0·08	8
					Week ending May 30	Week ending May 30				
	(1863)									
Vienna (City)	560000	..	..	..	..	..	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·919 in. The barometrical reading increased from 29·76 in. on Tuesday, June 2, to 30·07 in. on Saturday, June 6.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1851 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 59·2°.

APPOINTMENTS FOR THE WEEK.

June 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

Royal Institution, 3 p.m. Sir J. Lubbock, Bart., "On Savages."

15. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1·30 p.m.

16. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m. Royal Free Hospital, 9 a.m.

Anthropological Society of London, 8 p.m. Meeting.

17. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

18. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

Royal Institution, 3 p.m. Sir J. Lubbock, Bart., "On Savages."

19. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

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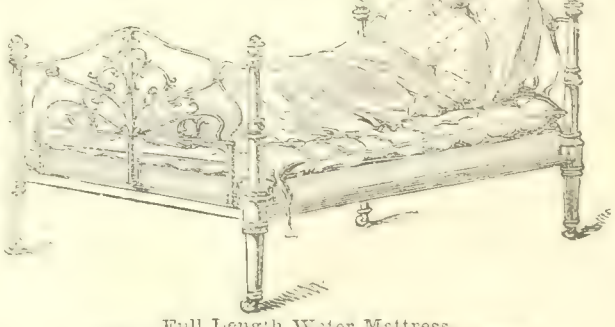

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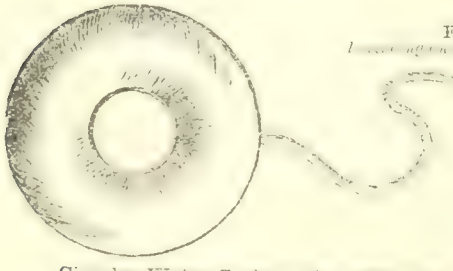

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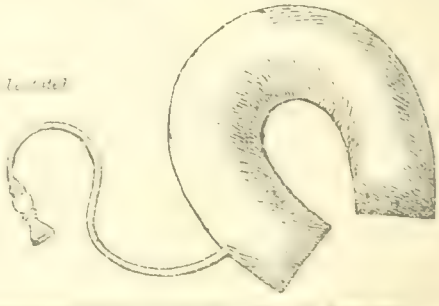

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A COURSE OF LECTURES ON OBSTETRIC OPERATIONS.

By ROBERT BARNES, M.D. Lond.,

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Lecture XIV.

TURNING WHEN LIQUOR AMNII HAS RUN OFF, THE UTERUS BEING CONTRACTED UPON THE CHILD. THE PRINCIPLE OF SEIZING THE KNEE OPPOSITE TO THE PRESENTING SHOULDER ILLUSTRATED.

So long as there is any liquor amnii present in the uterus, and often for some considerable time afterwards, the bi-polar method of turning is applicable. But a period arrives when it becomes necessary to pass a hand fairly into the uterus in order to seize a limb. We will now discuss the mode of turning under the more difficult circumstances of loss of liquor amnii, more or less tonic contraction of the uterus upon the child, and descent of the shoulder into the pelvis.

The contraction of the uterus, necessarily concentric or centripetal, tends to shorten the long axis of the child's body (see Figs. 39 and 40, *Medical Times and Gazette*, Feb. 8, 1868). The effect is to flex the head upon the trunk, and to bend the trunk upon itself, reducing the ovoid to a more globular form. This brings the knees nearer to the chest, but does not diminish the difficulty of turning.

I need not pause again to discuss minutely the preparatory measures. It is only necessary here to call to mind that chloroform or opium is especially serviceable, and that it is important to empty the bladder and rectum.

The first question to determine is, *Which hand will you pass into the uterus?* I have given some of the reasons why the left hand should be preferred in Lecture XII. (see *Medical Times and Gazette*, May 2, 1868). In the majority of cases the child's back is directed forwards; to reach the legs, which lie on the abdomen, your hand must pass along the hollow of the sacrum, and this can hardly be done, the patient lying on her left side, with the right hand, without a most awkward and embarrassing twist of the arm. I need scarcely point out how violent and unnatural a proceeding it would be to pass up the right hand between the child's back and the mother's abdomen, to carry the hand quite round and over the child's body in order to seize the feet which lie towards the mother's spine, and then to drag them down over the child's back. If you attempted this, you would probably get into a difficulty. The child, perhaps, would not turn at all. To avoid this failure, the rule has been laid down to pass your hand along the inside or palmar aspect of the child's arm. This will guide you to the abdomen and the legs. Or the rule has been stated in this way:—Apply your hand to the child's hand, as if you were about to shake hands. If the hand presented to you be the right one, take it with your right, and *vice versa*.

Rules even more complicated are proposed, especially by Continental authors. Some go to the extent of determining the choice of hand in every case by the position of the child. The fallacy and uselessness of these rules are sufficiently evident from the disagreement among different teachers as to which hand to choose under the same positions. Rules, moreover, which postulate an exact knowledge of the child's position, are inapplicable in practice, because this diagnosis is often impossible until a hand has been passed into the uterus; and it is certainly not desirable to pass one hand in first to find out which you ought to use, at the risk of having to begin again and to pass in the other.

The better and simpler rule is this:—*In all dorso-anterior positions, lay the patient on her left side; pass your left hand into the uterus*—it will pass most easily along the curve of the sacrum and the child's abdomen; *your right hand is passed between the mother's thighs to support the uterus externally.*

In the case of *abdomino-anterior positions, lay the patient on her back, and you may introduce your right hand, using the left hand to support the uterus externally.* If the patient is supported in lithotomy position, you can thus manipulate without straining or twisting your arms or body. But it is equally easy to use the left hand internally if the patient is on her back, so that the exception is only indicated to suit those who have more skill and confidence with the right hand.

We will first take a dorso-anterior position. Introduce your left hand into the vagina, along the inside of the child's arm. The passage of the brim, filled with the child's shoulder, is often difficult. Proceed gently, stopping when the pains come on. At the same time support the uterus externally with your right hand. Sometimes you may facilitate the passage of the brim by applying the palm of the right hand in the groin, so as to get below the head and to push it up. This will lift the shoulder a little out of the brim. Or you may practise a manœuvre attributed to Von Deutsch, but which had been practised by Levret. This consists in seizing the presenting shoulder or side of the chest by the inside hand, lifting it up and forwards, so as to make the body roll over a little on its long axis. This may be aided by pressure in the opposite direction by the outside hand on the fundus uteri, getting help from the bi-polar principle.

Sometimes advantage is to be gained by placing the patient on her elbows and knees. In this position you are favoured by gravity, for the weight of the fœtus and uterus tends to draw the impacted shoulder out of the brim.

The brim being cleared, your hand passes onwards into the cavity of the uterus. This often excites spasmodic contraction, which cramps the hand, and impedes its working. Spread the hand out flat, and let it rest until the contraction is subdued. In your progress you must pass the umbilicus, or a loop of umbilical cord will fall in your way. Take the opportunity of feeling it to ascertain if it pulsates. You thus acquire knowledge as to the child's life. But you must not despair of delivering a live child because the cord does not pulsate. I have several times had the satisfaction of seeing a live child born where I could feel no pulsation in utero. You are now near the arm and hand. They are very apt to perplex. Keep, therefore, well in your mind's eye the differences between knee and elbow, hand and foot, so that you may interpret correctly the sensations transmitted by your fingers from the parts you are touching.

At the umbilicus you are close to the knees. The feet are some way off at the fundus of the uterus applied to the child's breech.

What part of the child will you seize? It is still not uncommon to teach that the feet should be grasped. You will see pictures copied from one text-book to another, representing this very unscientific proceeding. There ought to be some good reason for going past the knees to the feet, which are further off and more difficult to get at. Now, I know of no reasons but bad ones for taking this additional trouble. You can turn the child much more easily and completely by seizing one knee. Dr. Radford insists upon seizing one foot only for the following reason:—The child's life is more frequently preserved where the breech presents than where the feet come down first. A half-breech is also safer than cases where both feet come down. The dilatation of the cervix is better done by the half-breech. The circumference of the breech, as in breech presentations, is from twelve to thirteen and a half inches, nearly the same as that of the head; the circumference of the half-breech, one leg being down, is eleven to twelve and a half inches, whilst the circumference of the hips, both legs being down, is only ten to eleven and a half inches.

But a knee is even better than a foot. You determine, then, to seize *one* knee; which will you choose? The proper one is that which is furthest. The reasons are admirably expressed by Professor Simpson. We have a dorso-anterior position—the right arm and shoulder are downmost—these parts have to be lifted up out of the brim. How can this be best done? Clearly by pulling down the *opposite* knee, which, representing the opposite pole, cannot be moved without directly acting upon the presenting shoulder. If the opposite knee be drawn down, and supposing the child to be alive or so recently dead that the resiliency of its spine is intact, the shoulder must rise, and version will be complete, or nearly so. But if both feet are seized, or only the foot of the same side as the presenting arm, version can hardly be complete, and will, perhaps, fail altogether.

This point is worth illustrating. I have taken Fig. 69 from Scanzoni (*Lehrbuch der Geburtshülfe*, 4th edition, 1867), in order to show the error in practice which I wish you to avoid. It represents a dorso-anterior position, the right shoulder presenting. The operator's left hand is seizing and drawing

down the right leg. I have introduced the arrows to indicate the direction of the movements sought to be imparted. You want the shoulder to run up whilst you draw down the leg. Now, drawing on the right leg necessarily tends to bring it towards the shoulder, the line of motion of the leg being more or less perpendicular to that of the shoulder. The body bends upon its side, the leg and shoulder get jammed together, and you have failed to turn.

Fig. 69.

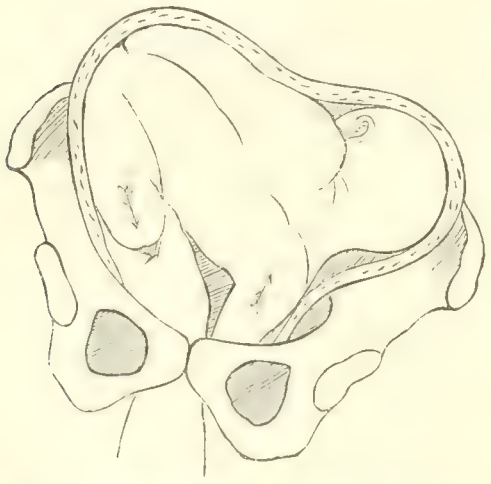

Fig. 69.—Mode of turning. To show the error of attempting to turn by seizing the leg of the same side as the prolapsed shoulder.

Contrast this figure with Figures 70 and 71, which I have designed to show the true method and principle of turning. The arrows, as before, indicate the direction of the movements. By drawing upon the opposite knee to the presenting shoulder, the movements run parallel in directly opposite directions, like the two ends of a rope round a pulley. You cannot draw down the left leg without causing the whole trunk to revolve; and the right shoulder will necessarily rise. To turn effectively, the child must revolve upon its long or spinal axis, as well as upon its transverse axis. Turning, in short, is a compound or oblique movement between rolling over on the side and the somersault.

If you seize both legs, you mar this process. The only cases in which I have found it advantageous to seize both legs are those in which the child has been long dead. Here the spine has lost its elasticity. The body will hardly turn, and there is nothing to be gained for the child in maintaining the half-breech and preserving the cord from pressure.

Fig. 70.

Fig. 70.—Showing the principle of turning by drawing down the knee of the opposite side to the presenting shoulder. The arrows indicate the reverse movements of the children. The object is to carry up the right shoulder. By drawing down the left knee this is most readily effected.

Fig. 71.

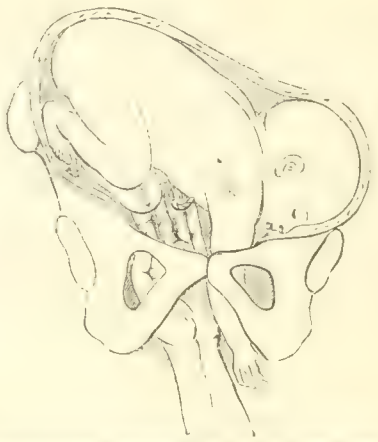

Fig. 71 shows turning completed. As the left knee descends the trunk revolves on its transverse as well as on its long axis, and the right shoulder rises out of the pelvis.

The seizure of a foot is not seldom a matter of so much difficulty that various instruments have been contrived to attain this object. To draw the foot or feet down, you must grip them firmly — that is, your fingers must be flexed in opposition to the thumb, or two fingers must coil around the ankle. This doubling of your hand takes room. Whereas to seize a knee only requires the first joint of the forefinger to be hooked in the ham. Figure 72 shows Braun's contrivance for snaring a foot. A loop of tape in the form of a running noose is carried by means of a gutta-percha rod, about a foot long, into the uterus, guided by the hand to the foot. When you have succeeded in getting the noose over the ankle, you pull on the free end, and withdraw the rod.

Fig. 72.

Fig. 72.—Braun's sling carrier, to apply a loop round the foot, or to replace the umbilical cord.

Hyernaux, of Brussels, has invented a very ingenious instrument, a *porte-lacs* or noose-carrier, for the purpose. There are many others, but since they are created in order to meet an arbitrary—I might say a wantonly imposed—difficulty, arising out of an erroneous practice, they need not be described. It is true that it is often convenient to attach a loop to the foot when brought into the vagina, to prevent it from receding before version is complete. But this can be done by the fingers with a little dexterity. The occasions on which it is necessary to seize a foot which can only be barely touched by the fingers are extremely rare. For these I think the simple apparatus of Braun, which also serves for the reposition of the umbilical cord, is as efficient as any.

The Death-rate of Naples.—The *Pall-mall Gazette*, adverting to the extension of typhus in Naples, refers to the extraordinary neglect of all sanitary rules which the Neapolitans display. This, it says, quoting a letter from its correspondent, "is certainly a wonderful climate, as all the efforts of the inhabitants to render it pestiferous are of so small effect. The usual death-rate of this town, with a population certainly exceeding half a million, is forty-five per diem; what would it be if ordinary sanitary rules were attended to?" Struck with the gravity of the statement, we went into the calculation roughly, and the result seems to us by no means to warrant the happy prospect the *Pall-mall* hints at. If our figures be correct, the mortality is considerably above the average of English returns.

ORIGINAL COMMUNICATIONS.

SHARK-BITE—AMPUTATION AT THE HIP-JOINT—DEATH FROM SHOCK.

By J. FAYRER, M.D.,
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On May 13 I was summoned hurriedly to the Hospital to see a Hindoo, named Ramchunder, a resident of Sham Baizar, in Calcutta, who had a short time previously been seized by a shark when bathing at a ghât near Habkollah. It appears that he was standing in deep water, when the shark seized him by the thigh, and carried off a great portion of the muscles and integument of the thigh, exposing the head of the femur, and grooving the bone itself in several places. With the aid of his companions, who were bathing at the same ghât, he reached the bank, was carried home, and thence to the Hospital, where he arrived about 10.30 a.m., in a state of great depression from the shock of the injury and the loss of blood, which is said to have been very great.

From the enormous extent of the wound and the position of the teeth-marks in the soft parts and on the bone, it appears that the shark must have struck a second time before tearing away the mass of flesh with which he disappeared—in this respect differing from the alligator, which does not readily relinquish its hold, but tries to drag the prey under water. As, owing to the muddiness of the water, the creature was not seen, it is important to recognise this distinction, as it enables me to make out by which the injury was inflicted. The shark was in all probability the *Carcharras Gangeticus*, a very voracious fish, and the individual must have been a very large one, from the size of the separate tooth wounds, as well as from the mass torn away and the deep grooves in the femur, the neck of which was nearly cut through. It seems difficult to comprehend how the teeth could have been driven in so deeply as to injure the neck of the bone, but such was the case, as shown in the accompanying sketch of the head and neck of the femur. It is at this time of the year that

Head of the bone grooved by shark's teeth.

sharks most infest the river, when there is more salt water than usual in the Hooghly. They frequent the bathing ghâts, and hunger emboldens them to dash in among the bathers and try to snatch a morsel, as in this case. Within the last four years the practice of throwing the dead bodies of Hindoos into the river having been, by municipal enactment, discontinued, the sharks, disappointed of the prey they have been wont to find in former years in abundance, now seek it among the living at the bathing ghâts. During the past month no less than three cases have been brought into the Medical College Hospital. In one a man was seized by both arms as he was dipping under water. He escaped with both arms injured, one being frightfully lacerated. In the other case a man was seized by the thigh, but the wound was comparatively slight, as the fish seems to have only taken an imperfect grasp of the part. About three years ago I had another fatal case in a woman who was seized in the same way, great portions of the gluteal region and thigh being torn away. She died very quickly of shock and hæmorrhage.

Notwithstanding these terrible accidents, the people go on bathing as usual, and the municipality have taken no steps to protect the bathers. This might be very easily done by staking off a portion of the water, so as to prevent the access of these fierce brutes. Such is done in the villages in the Soonderbuns, where alligators abound, and where, without such precautions, the people could not bathe with any safety.

I found the patient, who was a strong healthy-looking man of about 35 years of age, in a state of great prostration. The skin was covered with cold sweats. The pulse at the wrist was just perceptible. He was conscious, but suffering no pain. The shock was so great that it had apparently relieved him of suffering. He was restless, and trying to toss about in bed. Warmth had been applied, and stimulants freely given, with sinapisms over the heart and solar plexus. Slight reaction was coming on. The injury had been inflicted about one hour before admission, during which time nothing had been done. Blood was dripping from the ragged surfaces of the enormous wound, but there was no arterial bleeding. He is said to have lost a great quantity of blood, and it is very probable that such was the case, for his eyelids, tongue, and lips were quite blanched.

The upper part of the left thigh and gluteal region were frightfully mangled, the head of the femur was exposed, and the shark's teeth had cut away part of the cartilage of the head of the bone and grooved so deeply its neck as to expose the cancellated texture. The shaft of the femur lower down in the inferior third was also exposed, and the dense cortical tissue deeply grooved by the shark's teeth. The muscles and integument hung in shreds; the greater portion of the posterior part of the thigh, from the ilium to near the knee-joint, had been carried away. Part of the muscles and integument in the anterior aspect of the thigh remained. The femoral and obturator arteries had escaped. The gluteal and ischiatic arteries must have been divided, but there was no hæmorrhage beyond a general dripping of blood from the surface of the wound, which presented the appearance of one that had been inflicted by the passage of a round shot or shell.

He was placed on the operating table, and after stimulants and other restorative measures had taken effect, and a slight improvement in the pulse had taken place, I proceeded to amputate at the hip-joint. The anterior flap was made from the portion of uninjured tissue in the anterior and inner surface of the thigh, in which was the femoral artery. The posterior flap was obtained from the gluteal region from such tissue as was there least injured, and when brought together the stump was not by any means a bad one. Several ragged wounds in the gluteal region were brought together with sutures. The femoral and obturator arteries were ligatured. No others showed any tendency to bleed. The flaps, having been brought together with wires, were dressed as usual with carbolic acid dressing.

He bore the operation very well, being brought slightly under the influence of chloroform by Mr. Gaffney, the Resident Surgeon, and it was remarked by all present that his pulse seemed rather to improve than fail during the operation. He lost very little blood, the femoral artery being commanded by Professor Colles, whilst the limb was managed by Mr. Waller. Dr. Chivers was also present. He was removed into the operation ward and closely watched. There was no bleeding, and stimulants were constantly given, but he soon began to sink, and quietly expired about three-quarters of an hour after the operation.

The body was examined the following morning. All the viscera were healthy. The heart was empty and flabby; the lungs slightly congested hypostatically; the body and viscera generally bloodless. In addition to the wounds I have described, the shark had inflicted a deeply lacerated wound in the inner part of the gluteal region of the opposite side, another deep wound in the perineum, and had carried away the entire scrotum without injuring the testes, which were left hanging exposed, as though a Surgical operation had laid them bare. The thumb of the left hand had also been torn off at the metacarpo-phalangeal joint. This, no doubt, had

happened when the hand was suddenly extended to save the other parts.

Beyond the interest attaching to the terrible injury thus inflicted, which was followed immediately by the prostration caused by shock and hæmorrhage, it was very noteworthy how well, under the influence of chloroform carefully given in small quantities, he bore the operation. He did not appear to suffer the least increase of depression; on the contrary, he rather improved, and I believe that although he survived the operation only about three-quarters of an hour, he would have died sooner if the amputation had not been performed. It put a stop to all oozing of blood, and it removed an immense lacerated mass of tissue whose presence could only tend to aggravate nervous depression. It quite confirmed what I have often before observed, that it is not necessary to wait long in serious injuries with collapse where immediate amputation is required. It is also an additional proof of the value of chloroform in these cases.

NOTE ON SOME

CASES OF COPPER POISONING OCCURRING AMONGST THE OUT-PATIENTS OF ST. THOMAS'S HOSPITAL.

By EDWARD CLAPTON, M.D.,
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About a year ago a sailor came under my care suffering from chronic gastro-enteritis and other symptoms indicative of some metallic poisoning. He was a miserable object, and stated that he had been compelled during the whole time of a long voyage to drink lemon-juice which was kept in a copper tank. He informed me that all the crew suffered similarly to himself. I intended seeking out the vessel and making inquiries into the matter, but the man did not make his appearance again—an unsatisfactory and not uncommon occurrence amongst the out-patients, especially in respect of the most interesting and important cases. One peculiarity in this man's symptoms, which I made a particular note of at the time, was the existence of a most marked green line on the margin of the gums, and for some little distance on the teeth.

Not long after I noticed a similar appearance in a young woman who was an artificial flower maker, and who stated that she was in the habit of inhaling the dust of verdigris and Scheele's green, which she was obliged constantly to use in her business.

Last week, again, a patient came under my care in whom the same appearance was observed—viz., a dark green line on the edge of the gums, and a similar stain along at least half of each tooth. He was a coppersmith, working at Penn's Factory, Deptford. His general symptoms, which were of a chronic character, were vertigo, gastrodynia, flatulence, dyspnœa, frequent vomiting, some degree of wasting of the body, and a peculiar coppery taste. His tongue was moist and flabby, and pulse hard and full. He mentioned that there were fifteen others working in the same shop, and, in consequence of the information which he gave me, I called at the factory to-day, and was permitted to inspect the premises, and to examine the rest of the workmen.

Even with the greatest care, it is impossible to prevent the inhalation of copper particles or fumes. The dust of the shop, when viewed in a bright ray of light, can be distinctly seen to be charged with bright metallic particles. Water, too, kept in any vessel in the room for a short time, can be shown, by tests, to be charged with copper. The fumes given off during the process of strongly heating the copper for the purpose of joining appear to be most injurious. The workmen say they have rarely suffered from any definite illness, but all complained of lassitude and giddiness, and a disinclination, when not at work, to take exercise or "to go about," as other workmen. Some of them were exceedingly thin and pallid. *All of them had a green stain on their teeth*, of different shades of colour, varying from a light bright green to a dark greenish brown. Their perspiration had a bluish-green tinge. I examined the flannel waistcoats of several, and found them deeply stained, especially under the arms. One of the men stated that, even after a hot bath on Saturday night, his white shirt next day, if in hot weather, would be quickly discoloured. I noticed, too, that the wooden handles of all the hammers were stained green, from the perspiration of the hands.

I briefly mention these cases now in the hope of gaining further information as to these appearances, which I have not seen noticed; but I shall recur to the subject in a paper on an allied disease (plumbism), which I have in preparation.

June 16.

ON THE INFLUENCE OF A DIGESTIVE HABIT IN THE PRODUCTION OF TUBERCULOSIS,

AND THE INDICATIONS FOR TREATMENT DRAWN THEREFROM.

By DAVID J. BRAKENRIDGE, M.D.,
F.R.C.P., L.R.C.S. Edin.

(*Concluded from page* 633.)

2. *The condition of body favouring the development of tuberculosis is a habit of non-digestion of fat.*—By this I mean a comparative, not a complete, non-digestion. There is abundant evidence to show that in tuberculosis fat-digestion is defective. Almost all writers insist upon the repugnance felt in most cases for fat; and even where this dislike is not present, and considerable quantities are taken, it is usually met with in the stools, showing that it is not digested. There is, therefore, every reason to believe that this diseased condition depends upon a deficiency of oil, and consequent relative excess of albumen in the nutritive fluid. Admitting this, the question still remains—How does this disproportion between these substances originate? To this no satisfactory answer has as yet been given. To say that it is due to acidity of the alimentary canal does not indicate where or how the departure from the normal condition begins. Acidity is only one of the events in the history of the disease, and may be traced to that general suboxidation which accompanies diminished vitality. Most probably it is to be met with in all cases of tuberculosis which get the length of a post-mortem; but there is no reason to believe that it is the essential beginning of the tendency to the disease. Preceding the deposit of tubercle there is a stage in which deficient energy is the most marked feature, and wherein no actual disease of any kind can be traced. But even here the deficient digestion of fat has become established, only enough being taken into the system to supply the waste of tissue. Such being the case, it only requires some little additional demand to be made upon this small stock of fat to cause actual disease, with deposit of tubercle to commence. Repeated or prolonged exposure to unusual cold is sufficient, by drawing upon the limited supply of carbon, to disturb the balance between the fat and albumen, and thus cause malnutrition, with deposit of tubercle, particularly in those organs which are most active during the operation of the exciting cause.

The harmony which will be seen to exist between the recognised causes of tuberculosis and the conditions which favour the non-digestion of fats will most of all support this view.

3. *The causes of this habit are such conditions as diminish the consumption of, and consequent demand for, fat in the system.*—The appetite for, and digestion of, fat are originally regulated by the amount of its combustion in the body. Hence the causes of its habitual non-digestion will be those conditions which diminish that combustion. These may be pretty accurately ascertained by the amount of carbonic acid given off by the lungs under different circumstances.

(*a*) The temperature of the surrounding medium has a great effect on the amount of carbonic acid thus exhaled, heat diminishing and cold increasing the quantity. Hence cold climates and the winter season, by favouring the combustion of carbon, increase the desire for fat in the food. Warm climates and the summer season, on the other hand, are opposed to fat-digestion. Warmth applied from without in any other way will have the same effect; therefore warm clothing, confinement to warm rooms, the exclusive or excessive use of warm drinks, etc., will tend to establish this habit of deficient fat-digestion.

(*b*) Clothing has, as we have said, an effect similar to that of increased temperature, but differing in that it checks free perspiration. The non-conducting and close skins worn by the Esquimaux and other northern tribes must therefore greatly conserve the heat, and aid their increased carbon-combustion in resisting the influence of the excessive cold; whereas, on the other hand, the thinnest clothing must be very injurious in hot climates. Dr. Livingstone found by experi-

ment that the temperature of the almost naked African was two degrees lower than his own.

(*c*) Other conditions being the same, increased density of the atmosphere diminishes, and lessened density increases, the activity of the chemical changes dependent on respiration; consequently in warm climates high altitudes are found to be beneficial to the consumptive, because they are more favourable to fat-digestion than lower-lying places.

(*d*) A moist state of the atmosphere promotes, and a dry state checks, the exhalation of carbonic acid; but the former checks, and the latter promotes, perspiration. Thus, under the influence of moisture, heat is both formed and retained in the body to a greater extent than is required by the surrounding temperature. Hence a feverish state is induced which is antagonistic to fat-digestion; and as excretion from the skin is checked, and exhalation of carbonic acid is increased, extra work is thrown upon the lung, so that moisture may, by these combined actions, become an exciting cause of phthisis pulmonalis where the predisposing habit already exists. Dry hot air is, therefore, more easily borne than moist, and the advantage of a dry climate such as Egypt may depend upon the diminished heat of body from lessened oxidation and increased perspiration.

(*e*) Sleep and waking have a most important influence on oxidation. Professor Pettenkofer has quite lately shown most conclusively "that large quantities of carbonic acid are produced during the day in waking, whether we work or not, and that the absorption of oxygen during the day is comparatively trifling; while at night, during sleep, large quantities of oxygen are absorbed and stored up in the system, in order to enable us to compensate the previous extra waste of oxygen, and to be again prepared on the day following for the requirements of waking life." (See *Medical Times and Gazette*, 1866 and 1867.) According to his experiments, oxidation would appear to be a much less simple process than hitherto supposed, and the oxygen is probably occupied in various stages of oxidation within the system before the ultimate products of combustion—viz., carbonic acid and water—are formed. These experiments accord perfectly with, and therefore derive support from, those previously made on animals during hybernation. Certainly the above conclusions throw great light upon the habitual non-digestion of fat as a cause of phthisis, for in this disease no conditions are more constant in their operation than those to which we are subjected while sleeping. However varied our occupations and surroundings may be during the day, night after night we are under almost the same influences. The importance of close sleeping apartments in the production of phthisis has long been recognised; and, looked at in the light of these investigations, it cannot well be over-estimated. Amongst the poor of our large towns this cause must operate most powerfully; for, in addition to the numbers usually crowded into each room and closet, in winter every means is taken, on account of the scarcity of fuel, to prevent the free access of air. In the better classes closely curtained beds, and heated bedrooms during the cold season, have a somewhat similar effect, and the little inhabitants of the nursery, who, proportionately to weight, should absorb very much more oxygen than adults, are often crowded into an ordinary sleeping apartment, with the addition of nurses, and not unfrequently one room serves the double purpose of night and day nursery. Here, therefore, in both classes we have a constant source of deficiency of oxygen in the blood, and consequently of lessened demand for fat in the food. These experiments of Pettenkofer throw much light upon the large amount of carbonic acid given off, according to Dr. Edward Smith, during the early hours of the day, and the diminishing exhalation in the evening.

(*f*) Impure air was believed by Baudelocque to be the true and probably the sole cause of phthisis; and experiment has shown that relative purity or impurity of the air affects the amount of carbonic acid given off by the lungs considerably. Thus, if any amount of carbonic acid was present in the air, the quantity exhaled was lessened. When 300 cubic inches of air were repeatedly breathed for three minutes, only 9·5 per cent., or 28·5 cubic inches in all, were given off, although, when fresh air was breathed at every inspiration, the amount exhaled was 32 cubic inches per minute. In badly ventilated rooms, therefore, a deficiency of oxygen operates at night, and an excess of carbonic acid during the day, in the establishment of a lessened demand for fats.

(*g*) Muscular exertion increases the quantity of carbonic acid exhaled, both during its continuance and for some time afterwards. But exercise is principally a cause of the digestion of albumen; for great muscular exertion causes the albuminous compounds to be broken up, force and heat being the result. Thus, to a certain extent, the necessity for highly carbonaceous substances is diminished. Hence we find that in training fat is avoided. When training is suddenly left off, the habitual non-digestion of fat being thus more or less established, and the amount of albumen decomposed in the system being insufficient to keep up the heat of the body, the balance is apt to be disturbed, and tubercle deposited. Hence many athletes die of phthisis.

(*h*) The quality and quantity of the food supplied must directly influence the exhalation of carbonic acid and the habits of digestion. The scarcity and high price of good milk, butter, eggs, and fat butchers' meat in large towns has much to do with the development of the habitual non-digestion of fats in early life, and the much greater tendency to phthisis in town than in rural populations must owe its origin to this cause amongst others, especially when taken in connexion with insufficient clothing.

(*i*) The depressing passions and great mental exertion have both the effect of diminishing the amount of carbonic acid exhaled, probably by lessening the number of pulsations and respirations.

We have thus briefly reviewed the conditions which chiefly influence the oxidation of carbon in the body, and which either lessen or increase the demand for fatty substances in the food. It must strike every one that those which lessen the exhalation of carbonic acid are exactly those which, when operating for a length of time, are recognised as the chief causes of tuberculosis. But, as fat-digestion is admitted to be dependent upon the combustion of carbon in the body, it may naturally be asked, Is not deficient oxidation the first link in the chain of causation? I think not, for it seems probable that, to the extent that there is fat in the fluids of the body to be oxidised, the system will respond to the demands made upon it by external conditions, and that in this readiness to be influenced by those agencies which promote the oxidation of carbon, we have the explanation of the mode in which the exciting causes of the disease act. Suppose, for example, that, in a certain man, through the long-continued influence of heat, the power to digest fat has become lessened: let this man now be at once exposed to the influence of continued cold, and, no reserve of fat being habitually supplied for the purpose of keeping up the heat of the body under such a temperature, that which is intended for tissue-formation is drawn upon, and deficient tissue renewal is the result. That the faulty action is to be looked for in the digestive organs may be further inferred from the fact that, when we get cod-liver oil to pass into the system, oxidation seems to proceed perfectly. Admitting, then, that the digestive organs are at fault, I think that the explanation here given is more satisfactory than any other.

4. *In the treatment of this condition the indications are to break this habit and to restore the lost power of digestion of oils.*—We have seen that there is every reason to believe that the condition which really favours the development of tubercle is a habit of digestion, and we have examined one by one the various external influences to the continued operation of which its formation must be attributed. In seeking to effect a cure in the early and remediable stages of the disorder, it will therefore be our endeavour to correct this habit.

5. *This is to be best done by supplying in increased force what we find to be the chief stimulants to the digestion of fat.*—Having already considered in detail what these are, we shall avoid doing so again. Our success in the treatment will depend on our bringing into operation in each case a suitable combination of these conditions. In all cases the food is the chief thing to be attended to. The importance of this has long been recognised, and the matter of late years successfully studied. The result is that we are in possession of the two very easily digested substances, cod-liver oil and the pancreatic emulsion. These will pass into the system under many unfavourable circumstances, but, for reasons stated at the outset, they are not nearly so useful as they might be were they given under such circumstances as would operate powerfully in causing a demand for them in the system.

It is the fact that we possess fatty substances which will so readily pass into the blood, which makes us hope most from that treatment which we propose. If we had not the assistance of these first steps in fatty food, we might have some hesitation in urging these doctrines so strongly, as there might be some risk during the period which would elapse before ordinary fats could be digested. But in favour of cod-liver

oil there is much more to be said. When we have the first indications of tuberculosis presented to us, a certain amount of tubercular exudation has usually already taken place, and in our endeavour to cure the disease we have two indications to fulfil. First, in order to restore weakened tissue and prevent its further destruction, a properly constituted molecular fluid must be supplied to the blood. This will not, however, of itself suffice to remove previous exudation. Now we know, from their effects on enlarged scrofulous glands, that bromine and iodine both promote absorption of the exudation to a certain extent, even when given in our clumsy formulæ. The second indication, then, being the removal of this exudation, we have in cod-liver oil, ready-made by a living animal organism, a combination of these medicinal substances with an easily digested oil most suitable for application to a living structure. Thus, in administering cod-liver oil we with one substance fulfil both indications. Moreover, by having our medicines organically united with the reparative fluid, we insure their reaching and being brought into the most intimate relationship with the weakened tissues in the process of their renewal. Their operation being thus inseparably connected with the vital changes in the diseased parts, we can readily understand how small doses of these agents will, in this way, act much more powerfully than much larger quantities of the same substances administered in forms which have no affinity to the diseased structures. I should not class the pancreatic emulsion along with cod-liver oil, as, although both are easily digested, they are opposed to each other in their effects, the former being merely palliative, while the latter is truly curative. The emulsion, by supplying along with the fat the secretion which should digest it, removes the natural stimulus to the restoration of that secretion. Administered with the cod oil, and gradually giving place to the latter, its use may be attended with benefit at the commencement of that stimulating treatment which I recommend, by supplying the body from the first with a sufficiency of carbon, and thus preventing any risk that might attend the change from a warmer to a colder climate with increased oxidation.

To remedy defective nutrition by getting oil into the system, and to restore to the digestive organs the power of doing so habitually, being our aim, all other questions will be measured by their bearing upon this. With a view to this end the question of climate is of paramount interest. The climate of any locality is, for our present purpose, a combination in its atmosphere of certain conditions influencing the oxidation of carbon in the body. A favourable combination is to be met with only in certain places, and cannot be created at will elsewhere; whereas all other conditions having a similar influence may be supplemented anywhere. Thus a particular temperature, moisture, and density of the atmosphere cannot properly be commanded in any locality at will; but we can regulate our food, clothing, exercise, and ventilation as we please, wherever we are.

Now so little care has been taken in discriminating between the different stages of the disease in all the statistics and observations which we have regarding the influence of climate in tuberculosis, that they are more contradictory and confusing than useful. The conclusions to which I have come are, that in the earlier stages of the disease, especially that of predisposition to it, those conditions which favour the oxidation of carbon in the body will be most beneficial and truly curative; whereas, on the other hand, in advanced cases in which cure cannot be expected, and we can merely hope to prolong life by palliation, benefit will be derived from the moderate influence of those conditions which check the consumption of carbon. In the former case a cool bracing dry climate should be sought, and the use of large well-ventilated rooms at night, with plenty of exercise in the open air by day, only a sufficient amount of clothing to prevent chill (that next to the skin being woollen), baths gradually reduced in temperature, and a graduated scale of oleaginous food, should be assiduously yet cautiously persevered in. In most countries elevated situations, with diminished density of the atmosphere, will be preferable. In cases of hereditary transmission, perfect cure may be impossible in one generation, although great benefit will be derived from perseverance in the course advised. In cases of advanced disease we may choose a milder climate, warmer clothing, with perhaps a more humid atmosphere (?), and the pancreatic emulsion will pass more readily into the system than other forms of oil. Such palliative measures will also be advantageous in acute attacks at the outset of the disease for the purpose of lessening functional activity until inflammatory action has ceased, when we may cautiously commence the more bracing and truly curative treatment.

6. *And now, in conclusion, summer is more to be dreaded than winter in the tubercular diathesis, and safety to be sought rather in choosing a cool bracing climate in the former season than in the opposite and usual course.*—It may be urged against this proposition that most attacks of phthisis are found to take place in winter. I grant this; but I believe that the predisposition to these attacks is chiefly established during summer. The taste for fats which each winter more or less developes, continuing on into summer, is the real predisposing cause of those bilious attacks which are so common in the latter season, the unnecessary accumulation of rich materials in the blood being their cause. In like manner the deficient digestion of, and dislike to, fats, which are the result of summer heat, continuing on into winter, are the cause of those acute attacks of phthisis which are so common then, the greater consumption with diminished supply of fat causing a disturbance in the relative proportion of the oil to the albumen in the nutritive fluid. In many cases, as we have already hinted, the salutary and counterbalancing influence of winter has for years been annulled by confinement to close apartments, too warm clothing, and insufficient exercise during the cold weather, and thus the morbid habit has become developed. For such reasons, seeing that the evil effects of too long-continued imitation of a summer temperature, with many other aggravations, have much to do with the origin of the malady we are dealing with, I think it highly advisable that this mischief should be checked by avoiding any exposure to those conditions which have given rise to it, and that we should endeavour by a continued exposure to a bracing degree of cold, with the other means already mentioned, perseveringly to conquer inch by inch the ground that has been lost until the habit of fat-digestion has been perfectly established and health restored.

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Medical Times and Gazette.

SATURDAY, JUNE 20, 1868.

NATIONAL HONOUR TO MEDICINE.

The banquet given to Sir William Jenner last week, to congratulate him on the addition of his name to the baronetcy, ought not to be allowed to pass out of recollection without something more than a passing record. On personal grounds—if We, speaking in the name of this journal, can be personal—it would be difficult to overstate the gratification with which the proprietors and conductors of the *Medical Times and Gazette* announced the honour which the Queen proposed to confer on Dr. Jenner, for it is well known that nearly all the lectures and papers on which his well-earned reputation is founded first appeared in these columns. No man ever earned a baronetcy more honourably. The colleagues, pupils, and friends who crowded to the banquet last week did but represent the feeling of the whole Profession when they cordially cheered those parts of Dr. Parkes's speech and of the address of the students which emphatically attested that the reward

had been well earned by hard work which has been most useful to mankind and honourable to Medicine.

But on far higher than literary or professional grounds, we hail the elevation in the social scale of the country of any real worker in Medicine. It is quite impossible to overestimate the good which is done by such just rewards for meritorious service—equally impossible to foresee the harm which a careless or undeserved bestowal of titular distinctions may effect. No one can tell how many young men, hesitating in the choice of a career, may be deterred from devoting themselves to the study of Medicine by the feeling that, work as they may—render service, however great, to their country and to the human race—they must be content at the best with the ordinary private rewards of professional success—that no public or national distinction is ever likely to be attained by devotion to Medicine either as a science or an art—and that the Church or the Law, the Army or Navy, even the life of an artist, an architect, or an engineer, is more likely to lead to national distinction. We have good reason to believe that very many young men are every year diverted from entering upon a Medical career by such considerations as these, and it is well known that very few even of our most successful Physicians and Surgeons bring up their sons in their own profession. The Church is by most men (or ought to be) adopted as a calling on other grounds; but the life peerages of the bishops, the ecclesiastical dignity of the deans, and the social position accorded to every clergyman, must have their weight in securing for the Church men whose birth and education fit them for filling its high offices with honour and usefulness. The Law is adopted by some as an indirect step to political life; but the prizes open to lawyers, simply as lawyers, are so out of all proportion with those open to Doctors, as Doctors, that no one can wonder at young men of a class who would follow Medicine as a scientific profession, not as a mere mode of earning a living, being often diverted, notwithstanding a love of natural science and a strong bias towards Medicine, away from our schools by the superior attractions which the law offers to honourable ambition. From the Lord Chancellor, the Lords Justices, the Vice-Chancellors, the Master of the Rolls, the Lords Chief Justices and Chief Barons, the judges, down through the Attorney and Solicitor-General, besides many other less familiar offices, the law abounds with appointments which not only secure rich pecuniary rewards from the State, but are also associated with titles which confer personal dignity. It may not be strictly by legal right—indeed, it is solely "by grace and favour of the Crown"—but it is certainly by almost unbroken custom, that an Attorney or Solicitor-General, or any one attaining either of the positions just named, receives a knighthood as a matter of course. Why should not this same custom rule when a Physician or Surgeon becomes President of the Medical Council, President of the College of Physicians, President of the College of Surgeons, Director-General of the Army or Navy Medical Department, Medical Officer of the Privy Council or of the Poor-law Board, a Commissioner in Lunacy, or, what we hope one day to see, a Minister of Health and a Director of the Civil Medical Service? The baronetcy may not be a suitable distinction for all these offices. Some men have not the fortune considered necessary for those whose sons inherit a title of distinction; and there are others who have well merited a reward for their own services, who would not claim any reward for their descendants. In the law, as in the army and navy, this distinction is broadly marked. If an hereditary title has been earned, a peerage, not a baronetcy, is granted to the successful lawyer, sailor, or soldier. The churchman has a life peerage. If some lesser honour is conferred, knighthood is the usual distinction. Only the other day, when Mr. Giffard was made a Vice-Chancellor and Mr. Hannen was raised to the bench, these lawyers were knighted almost as a matter of course. Yet no one talks in such cases of knighthood losing all honour by being made too common. Only let the man or the office be of sufficient merit or importance, and both the order and the knight are gainers, as well as the nation which has without expenditure rewarded a worthy man, maintained the dignity of a high office, and encouraged rising men to work hard by an example of merit meeting with recognition. When we assert that the State would do well to honour the more eminent of our Profession as freely as eminent lawyers are honoured, we are told that Doctors ought to be satisfied with the inner consciousness of having been pre-eminently useful to our fellow-creatures, and of having added to the sum of human knowledge. And this may be the best reward for the men themselves. But for the sake of the nation it is most desirable that some evidence should be given to those still hesitating as to the choice of a profession that, if they devote their energies to the promotion of the physical well-being of the people, a knighthood, or a baronetcy, or a life peerage may be as certainly attained by Medical men whose labours have done honour to their country, as by the soldier or the sailor, the churchman or the lawyer.

MEDICAL EDUCATION IN GERMANY.

The subject of Medical education in this country is at present attracting so much attention that we think it may not be without interest if we lay before our readers an account of the system of Medical training adopted in Germany, and indicate some of the advantages which it undoubtedly possesses. Before proceeding, however, to the consideration of this subject, it will be desirable to sketch briefly the position held by the Profession in Germany, more especially in its relation to the State.

Considering that Prussia presents the best example of a country in which all subjects relating to Medicine at large have been regulated by the State from a comparatively early period and to a most complete degree, we shall confine ourselves to describing the system of Medical education pursued in that country, and adopt this as the standard to which Germany has attained.

The basis upon which the system at present existing is founded is an edict issued by the great Elector Frederick in 1685. By this document all Medical affairs, which had been previously supervised by the clergy, were placed under the entire control of the Government. In 1725 the "Medicinal Edict" was issued, which, with a few alterations which have become necessary from time to time, is still in force. Previous to her recent aggrandisement, Prussia was divided into eight provinces, each province consisting of several districts, corresponding to our counties, and containing towns and villages. The highest official of a province is called the "Ober-Präsident;" that of a district, the "Landrath;" whilst the head of a town is the "Bürgermeister," and of a village the "Schulze." These officials, in connexion with certain Medical officers and Veterinary Surgeons, partly appointed by Government and partly elected by the citizens, constitute the official Medical Committee of their respective districts. All these committees are under the direct control of a special department of the Privy Council, called the Section for Medical Affairs—Abtheilung für Medicinal-Angelegenheiten.

From the office of this department all laws, regulations, and rescripts which are not subject to Parliamentary debate are issued; and all persons connected in any way, either with the Medical Profession, with forensic Medicine, or with public health, have here their highest authority. Amongst these persons are included—

1. The professors of the different universities.

2. The large body of professional men—Aerzte—including all those who have been educated in a university, have

graduated as Doctor, have passed the State examination, and are practising Medicine, Surgery, or Midwifery. They are not permitted to dispense medicines except under very urgent circumstances.

3. The members of the Veterinary Profession.

4. Apothecaries—Apotheker—who must have been apprenticed for three years to a legally qualified Apothecary, have served three years more as assistant (Gehülfe), have attended the university, have been engaged for a certain time in the study of practical analytical chemistry, and, finally, have passed the State examination. They neither claim nor have the right of practising Medicine or Surgery.

5. Midwives—Hebammen—women of at least twenty years of age who have been trained in one of the schools (Hebammenlehranstalt) and passed their examination. We shall subsequently show that their licence for practising midwifery is very limited.

6. Knackers—Abdecker—whose duty it is to dispose of the bodies of dead animals, and who are thus brought into connexion with the public health department. They are licensed, and have to undergo an examination in reading and writing, and have to show a general knowledge of veterinary anatomy and pathology and of the laws relating to zymotic diseases.

It will thus be seen that the State takes cognisance of all those whose duties influence in any way the life of man or animal, and attempts to protect the public by limiting and directing the performance of these duties.

Besides the department just mentioned, there is another most important body immediately dependent, in like manner, upon the Minister for Medical Affairs—viz., the Scientific Council for Medicine—"Die wissenschaftliche Deputation für das Medicinalwesen in Berlin." It consists of the men of the highest scientific reputation in the Profession, and is constituted usually of Professors of the University of Berlin or other towns. The duties of this Council are described according to the law of 1817, by which it was instituted, under the following heads, which we have extracted from the very elaborate regulations contained in the edict:—

1stly. To preserve in their purity and perfection those scientific truths and principles on which the administration of Medical affairs must be based, and to accommodate them to the benefit of the State at large, according to the progress of the science of the day, and to assist the minister and courts of justice in the performance of their duties by their theoretical as well as their practical knowledge and experience.

2nd. To give a written opinion upon all the scientific questions relating to criminal or civil actions, causes of death and disease, or other judicial and public matters in which Medical, professional, or scientific doubts are raised.

3rd. To examine those Medical officers who intend to become officers of health (Kreis-physicus und Kreis-chirurg).

4th. To give their opinion in cases of Medical men or apothecaries being accused of negligence or ignorance in the performance of their Professional duties.

5th. To issue and regulate the Pharmacopœia.

From these remarks it will be seen that the career of a Medical man may be either mainly Professional or official, but usually combines a certain amount of both. Whatever department he may choose, however, he has to pass through certain examinations, and holds his licence to practise directly from the State. This measure is preserved so strictly that, notwithstanding a man having taken all his degrees at a University, he would not be permitted to practise without having obtained the sanction of the State, and, on an attempt to do so, would be indicted as a quack (Quacksalber), a transgression which is severely punished by the criminal law of Prussia.

Dr. Juge, of Paris, has died, at the age of 41, of dissecting wound.

THE WEEK.

TOPICS OF THE DAY.

The Profession will be glad to observe that the Medical officers of the Abyssinian army have received an instalment of the credit due to them in the honourable mention of three of their number in Sir Robert Napier's despatch, dated Antalo, May 12. Major-General Sir Charles Stavely, commanding the 1st Division, brings the names of the following Medical officers before the notice of the Commander-in-Chief:—Surgeon Pearl, of the Madras Sappers; Dr. Mahaffy, Principal Medical Officer of the 1st Division, "whose arrangements for the field Hospitals were all that could be desired;" and Surgeon-Major Wyllie, in charge of the field Hospitals, 2nd Brigade. We congratulate these officers on this public recognition of their services. But the whole success of the expedition has been dependent to so large an extent upon the admirable hygienic condition of the army, which has been mainly due to the advice and counsel of the Medical Department, that we hope that public honours and rewards will be dealt with no niggardly hand to men who have rendered their country such invaluable service.

It appears that there will be no lack of Medical competitors for the honour of representing in Parliament the Scottish Universities. We mentioned the name of Dr. B. W. Richardson, F.R.S., last week, as that of a probable candidate, and we can now state that a requisition, signed by a large and influential section of the graduates, will be shortly presented to Dr. Richardson. That gentleman has already been communicated with, and has signified his willingness to come forward if it be the desire of any considerable number of the constituent body. It is also announced that Dr. Prosser James intends to offer himself to the electors. Dr. James's manifesto is before us, wherein he declares himself a Medical reformer, insists on the necessity of extending the franchise in the election of members of the Medical Council, and proposes the admission of persons to practise all branches of the Profession through the "one portal" of a State examination, to be conducted by a board for each kingdom, at which all the examining bodies shall be represented. For the rest, Dr. Prosser James offers a liberal programme, but we do not learn that he has any special claims beyond his Professional status to the support of the Medical graduates. Dr. Lyon Playfair continues to claim support on the ground of high scientific standing and his connexion with the University. Mr. A. Campbell Swinton, LL.D., is the legal and Conservative candidate. We are glad to hear a rumour that Dr. Andrew Clark will probably offer himself for the representation of the Universities of Glasgow and Aberdeen. We think that the Medical graduates would with difficulty find a more suitable candidate. Dr. Clark's position as Physician to a large metropolitan Hospital and one of the foremost workers in Medical science, his high reputation and social advantages, point him out as a candidate worthy to represent a learned and largely Medical body. We believe that in politics Dr. Clark is Liberal, but not an ultra-Liberal. We should gladly see his candidature definitely announced. The name of Dr. Kilgour, of Aberdeen, has also been mentioned. In the meanwhile, we hear that the Lord Advocate is actively canvassing. It is clear that a Medical candidate can only be returned against such influence as the Lord Advocate will undoubtedly command, by the perfect and early unanimity and co-operation of the Medical graduates. We hope that no time will be lost in choosing a suitable representative, and that our Medical brethren in the two Universities will unite to carry his election.

It will be observed that the Government are unwilling to give to the Pharmaceutical Society the unrestricted control of the examinations of chemists and druggists. The Duke of Marlborough's clause, which will place the Pharmaceutical Society's examinations under the superintendence of the

Privy Council, is evidence of this But we cannot but regard the chances of the Bill in the House of Commons, at least in the present session, as very problematical.

The use of the nitrous oxide gas as an anæsthetic in dental practice continues to attract attention. We hear from Mr. Charles James Fox that it has been administered about sixty times in his practice by Mr. Clover, and in every case with most satisfactory results. According to Mr. Fox, the average time for recovery from the anæsthetic state is thirty-five seconds, at the end of which the patient is thoroughly awake and able to speak collectedly. Blueness and lividity are so common that they are scarcely regarded; they disappear instantly the mask is removed. Mr. Fox has himself inhaled it, and he describes the taste of the gas as slightly sweetish, but in other respects so agreeable and unirritating that he was hardly conscious of not breathing atmospheric air The gas is said to leave no feeling of oppression of the lungs and heart and no giddiness. Many of the patients after taking it say that they imagined themselves travelling in a railway carriage. Mr. Fox has fitted up a complete apparatus for making and administering the gas. Nitrous oxide is produced by heating dry nitrate of ammonia in a large flask; the gas is then passed alternately through four glass vessels containing water and lime-water, to remove acid or other impurity, and is stored for use in a large gasometer, from which it is conveyed by a caoutchouc tube to the operating-room. Mr. Clover informs us that he has administered the gas in 181 cases, and in some of these he has repeated the inhalation twice or oftener at the same sitting in consequence of the number of teeth to be extracted or the difficulty of extracting them. In one case, that of a Medical Practitioner, he gave the gas five times to the extent of producing uninterrupted insensibility during twenty minutes. This prolonged experiment was attended with no unpleasant consequences. Mr. Clover uses the same kind of bag and face-piece or mask he employs for giving chloroform, and he has only found it necessary to add a kind of stop-cock near the face-piece, by means of which pure air can be supplied during its adjustment, and shut off when the inhalation of the gas is to be commenced. By the use of his face-piece, the disagreeable operation of pinching the nose and forcibly compressing the lips against the mouth-piece of the tube for the purpose of excluding atmospheric air is avoided. The experience Mr. Clover has had with this reagent leads him to believe that nitrous oxide is as safe an anæsthetic as chloroform when properly managed, and that it surpasses all other anæsthetics in the rapidity of recovery and the cheerfulness manifested after it has been given. To this, of course, it may be objected that its use has only been prolonged beyond the time necessary to apply the forceps and extract a tooth in a very few exceptional cases. The appearance of some of the patients is certainly ominous enough; but on the other hand the rapidity of their recovery is astonishing. We think that there is sufficient evidence now accumulated to prove that, where only a momentary immunity from pain is required, nitrous oxide gas may be given with at least as much safety as chloroform, but we doubt whether it ever can be safely adopted in capital Surgical operations.

In the case of Barry *v.* Barrott, recently tried in the Probate and Divorce Court, one Barry, a homœopathic Practitioner, propounded a will of a woman named Symms, whom he had attended, and to whom he had been left executor. The will, although not made directly in Barry's favour, gave to a Mrs. Turner a third of the testatrix's property. It came out in evidence that Mrs. Turner was intimately connected with Barry in pecuniary transactions, and there was not the slightest evidence that Mrs. Turner had ever been seen by the testatrix in her life. The Court decided against the will, the Judge, Sir J. P. Wilde, animadverting severely on the plaintiff's conduct.

Some weeks ago the town was amused by an account of a wonderful elephant hunt, of which the hero was Mr. R. Boustead, a Surgeon in the Abyssinian army. The account was originally published as a letter from Mr. Boustead in the *Field* newspaper. Mr. Boustead's exploits were certainly sufficiently marvellous, he having been charged by several infuriated bull elephants, having killed three of them and wounded a fourth, which managed, however, at last to escape from his unerring rifle. The *Pall-mall Gazette* and several other papers treated the whole affair as a hoax. However, Lieutenant Edwards, of the 1st Belooch Regiment, has come to Mr. Boustead's assistance. He states that before he left Sooroo he saw the tusks of two elephants Mr. Boustead had shot, and has, moreover, even brought home their tails, which had been cut off as trophies for Mr. Boustead's friends.

In the case of the disputed coronership for West Middlesex, the Court of Queen's Bench has granted a rule *nisi*, in order to enable Dr. Diplock to obtain from the Middlesex magistrates his salary and expenses.

Commemoration week at Oxford has passed with unusual brilliancy. We surmise that honorary degrees to Medical men have this year been reserved until the meeting of the British Medical Association shall have brought large numbers of the Profession within the classic precincts of the University. We are glad, however, to notice that an honorary degree of D.C.L. has been conferred on Dr. Miller, the Professor of Chemistry at King's College.

We are glad to notice that the Committee of the National Horticultural Exhibition have determined on a very sensible and suitable memorial to one of our greatest English botanists, the late Dr. Lindley. They propose investing the balance of the profits realised by the Exhibition (£2000) in the purchase of books to form a botanic library, which is to be called the Lindley Library, and is to be annexed to the Royal Horticultural Society.

THE QUEEN'S UNIVERSITY.

The graduates of this University are determined, if possible, to obtain representation. On Monday a deputation of members of the University waited on Mr. Disraeli, at Downing-street, to urge upon him the necessity of including in the Irish Bill a clause for the representation of the University. The graduates now number nearly 1009, and, if the Government declines to countenance the scheme of a general national University, in which the existing Universities should merge, it is bound to give its careful attention to the claims of so large and enlightened a constituency. The deputation was introduced by the Bishop of Killaloe, and consisted of a large number of the most distinguished graduates, including various members of our Profession, among the number Dr. Mapother, the Professor of Anatomy and Physiology in the College of Surgeons, Ireland.

TERLING.

We called attention last week to what appeared to us a very ungrateful and ungenerous omission on the part of the people of Terling. During the outbreak of fever in that village, several Medical men of the neighbourhood most unsparingly and ungrudgingly gave their time and their services to the relief of the inhabitants. It is surely a very singular circumstance that only *one* of these should be thought worthy of receiving a public recognition of his labours. There can be no question that Dr. Gimson, who was somewhat invidiously selected for this honour, most thoroughly deserves the very handsome testimonial which he has received; but it must, we feel, be quite as painful and unsatisfactory to him as it is to us to see the services of his fellow-workers unnamed and unacknowledged. Why has no mention been made of the names of Messrs. Proctor and Barron, who both laboured earnestly and constantly amongst the fever-stricken patients of Terling? There is another gentleman, too, whose services are especially

deserving of notice—a gentleman who is known to have given, in the most unselfish manner, much time and much valuable aid to the poor of this village in their dire visitation. We allude to Mr. J. H. Salter, of Tolleshunt D'Arcy, whose admirable account of the nature and causes of the typhoid epidemic in Terling appeared in the pages of this journal. Mr. Salter, although living at a distance of more than twelve miles from the village, was a constant attendant at the bedsides of those of its inhabitants who were stricken down by that fearful pestilence. It is surely not too late now for the people of Terling and its neighbourhood to show those gentlemen that they are not unmindful of the services they have received at their hands.

THE CITY OF DUBLIN PRISONS.

THE dispute between the Grand Jury of the County of the City of Dublin and the Town Council, respecting the right to appoint to the office of Physician to the Richmond Bridewell and the Grangegorman Penitentiary, has just been decided in the Court of Queen's Bench in favour of the former body. By this decision, the appointment of Dr. Quinlan by the Town Council last year on the death of Dr. Banon will become void, and Dr. Burne, who was at the same time appointed by the Grand Jury, will succeed to the office of Physician to the City of Dublin Prisons.

THE ESMONDE WILL CASE.

THE great will case, which lately occupied the Court of Probate in Dublin for nine days, has resulted for the present in the disagreement of the jury, it being pretty well known that nine of that body were in favour of the validity of the will, and three against it. The facts of the case are briefly these:—The testatrix, Sophia Maria Lady Esmonde, daughter of the late E. Rowe, Esq., of Ballycross, County Wexford, was twice married, first to H. K. Grogan Morgan, Esq., and secondly to the Right Hon. Sir Thomas Esmonde, Bart., a Roman Catholic. By a deed executed in 1850 her first husband left her a life interest in the estate of Johnstown Castle, worth from £15,000 to £20,000 a year, and also made her absolute owner of all his personal property, which was considerable. Mr. Morgan died in 1854, and, on his widow's marriage, in 1856, with Sir Thomas Esmonde, the above was settled upon herself, with power to dispose of all the personal property, by deed or will, as she might think fit. Lady Esmonde devoted a considerable portion of her income to charitable purposes, supporting a Protestant school, paying the salaries of the schoolmaster and schoolmistress, the stipend of the Protestant clergyman of the parish, and the salary of the organist. In addition, her ladyship supported a lying-in Hospital and other charities. Her husband has a large property of his own, and is childless, and to her own two children by her former marriage, the Countess of Granard and the Honourable Mrs. Dean Morgan, properties of £12,000 and £5000 a year respectively were secured after her death. Up to the end of the year 1866, it is probable that any will made by Lady Esmonde would have been in Lady Granard's favour, but just then Lady Granard joined the Church of Rome, a change of religion which Lady Esmonde took deeply to heart. Feeling that she could not, under these altered circumstances, expect Lady Granard to keep up her Protestant charities, she gave instructions for the preparation of her will, securing £100 a year for the salary of the clergyman of the parish, £50 a year for the organist, £200 a year for keeping up a lying-in Hospital, £50 a year for the Physician to the Hospital, nominating Dr. Boxwell to the office, and providing that the Physician and superintending nurse-tender should always be Protestants. Lady Esmonde left the residue of her property, about £60,000, to found a college, in which preference was to be given to the sons of Protestant clergymen. The new College was to be situated in the county of Wexford, and was to be called "Grogan College." On July 31 Lady Esmonde's solicitor was sent for to Dublin to execute a will in accordance with the above instructions. On the evening of August 1 her ladyship was stricken with paralysis; she became incapable of moving, her hand lost its power, but she retained her mental capacity. On the morning of the 5th the will was executed, Lady Esmonde affixing her mark. On November 22 the testatrix died. The validity of the will was now disputed, partly on the ground of mental incapacity. Dr. Hudson, of Dublin, and Mr. Goodall, Surgeon, of Wexford, testified that Lady Esmonde's mind was clear on August 3, and Mr. Goodall stated in evidence that he did not perceive wandering in her mind until three or four weeks after his first visit, while Dr. Boxwell, of Wexford, the family Physician, stated that at the date of the consultation with Dr. Hudson and Mr. Goodall their joint opinion was that Lady Esmonde's mental state was so far perfect as to admit of her signing a prepared document, but that her bodily state would not be equal to the labour of originating a will. The judge charged in favour of the will. The result of this trial, which probably practically invalidates a document in accordance with the known intentions of the testatrix prior to her illness, has with some revived the feeling that a modification of the jury system, as to requiring complete unanimity among twelve men, would be desirable.

FROM ABROAD.—NURSES AND SYPHILITIC INFANTS—ADMINISTRATION OF CHLOROFORM TO CHILDREN.

DURING a recent discussion at the Lyons Medical Society on communication of syphilis to the infant *in utero*, the subject of the duties of the Medical attendant in relation to such infant and a hired nurse came prominently forward. Of course the matter is of more interest in France than with ourselves; for not only, in spite of all police precautions, does syphilis seem to be as prevalent, or indeed still more so, as regards families in genteel life, than with ourselves, but hired nursing is a very general practice. Not long since this same question was raised at the Paris Medical Society—viz., should the Practitioner allow a syphilitic infant to be suckled by a healthy nurse? MM. Richard, Briquet, and others advocated the assigning some pretext for discontinuing suckling; M. Perrin was of opinion that the nurse should be advertised of the risks she ran; while M. Lagneau would not think of sanctioning the continuing the suckling by a healthy woman, even supposing she were indemnified, for he would knowingly be exposing her to infection. In his opinion a syphilitic child should be brought up either by the bottle or by a syphilitic nurse. On the present occasion M. Icard quite adopts this view, and thinks the attendant should always urge the mothers of infants menaced with syphilis to suckle them, and decline all responsibility in relation to nurses for them. M. Gailleton is of opinion that whenever we are aware that an infant is the subject of syphilis we should apprise the nurse. In such case the bottle is our only resource. The life of the child may possibly be compromised, but the fault lies with the parents, and the mother should suckle her child. M. Delore observed that the child of a syphilitic mother is usually sickly, and especially requires a good nurse, or it will probably die. If the mother herself is forced to suckle it, as at the Lyons Charité, she does so unwillingly and badly. But if the child is given to a healthy nurse, it may communicate syphilis to her. On several occasions the wet-nurses employed by the Charité have presented secondary symptoms, which, there could be no doubt, they had derived from the children committed to their charge by the Hospital. Fearing that children may not be consigned to the localities they come from in future, they do not seek legal indemnities at the hands of the authorities, but only come to the Hospital to be treated. It is a very serious thing for an attendant to furnish a nurse for a syphilitic infant,

for he may be afterwards taxed with ignorance or with connivance with the parents; and, wherever he can, he should always induce the mother to suckle her own child. Here was a serious case. One of our *confrères* was a friend of a gentleman who he knew had had syphilis. The latter married and had a child, which at its birth exhibited no signs of syphilis. The Doctor himself found a nurse for the child. At the end of a month she brought the child covered with a syphilitic eruption, and some time after herself became syphilitic. She was eventually treated in the Hospital for syphilitic paralysis, and died. Her husband had syphilitic iritis, and lost an eye. Two actions were brought against the Doctor, one of which he lost. Whenever M. Delore has the slightest doubt, he never enters into any engagement concerning the nurse, sheltering himself behind the father, and if the nurse comes to him of her own accord, he refers her to the father. M. Chabalier considers that, as the Medical adviser of the family, he has nothing to do with the nurse. He states the case clearly to the father and mother, showing the danger the nurse incurs by their employing her, and in many instances he has, as it were, forced the mothers to nurse their children. If a nurse comes to consult him with a syphilitic child, if he does not know the family, he states to her the exact condition of matters, but if the child belongs to one of his own patients he says nothing to the nurse, as doing so, he considers, would be to violate Medical secresy. M. Laroyenne thinks that when the child is syphilitic we should use all our influence with the parents to prevent their hiring a nurse. If the nurse comes of her own accord for advice in the matter, he refuses to give it, telling her he is the attendant of the family, and that she must seek for an opinion elsewhere. When there is only a probability that the child may become syphilitic, and when it is impossible for the mother to suckle, the best course, if we can obtain the sanction of the parents to it, is to explain to the nurse the amount of risk she runs, and let her then act as she thinks proper. Then, again, syphilitic infants may be suckled by syphilitic mothers who have lost their children.

M. Diday considers the case under two points of view. 1. What is the duty of the attendant in relation to a nurse to whom he gives charge of a child at the moment of its birth that he suspects may be the subject of syphilis? In his opinion, all that is necessary is done when the danger of infection has been fully explained to the parents. But we must work upon their fears rather than their sympathies, and explain to them the danger of actions being brought and reputation being lost. We must, moreover, inform them that we shall be obliged to refuse a certificate of health of the child if such is sought for by the nurse before taking charge of it; but it is no part of our duties to expose her danger to the nurse herself who is not seeking our aid. Even when one of our patients, the subject of syphilis, is about to marry, and thus may infect his wife, we do not intervene and apprise her relations; and yet the danger here is both greater and more visible. We cannot, even with the best motives, turn informers against our own patients. But we may clearly inform them that if we are interrogated concerning the special health of their infant, although we can be silent, we cannot consent to tell lies, and that the silence we are compelled to keep will be interpreted against them. Thus warned, the parents will either abandon their idea of taking a nurse, or they will explain to her the risk she runs, and make their bargain accordingly.

2. What is the duty of the Practitioner when, at the end of some weeks, the child is brought to him the subject of hereditary syphilis? "If the child exhibits contagious lesions about the mouth, and if these have existed there a fortnight, I allow it to continue its nurse. In fact, if the nurse is to be contaminated, she has probably at the period of the examination already contracted syphilis. Therefore, whether for her own sake, as she will be well attended to, or for that of the infant, to whom she will transmit the remedy with her milk, it is far better that she should continue the suckling. I say lesions *about* the mouth, not *within* the mouth. In fact, it is to be remarked that lesions of the buccal cavity, so common in acquired syphilis, are very rare in the congenital form. But their absence, which is rigorously established with difficulty, only furnishes an illusory security as regards the transmissibility of the disease. The nurse is infected much rather by the *juxta-buccal* lesions, as the erythemato-papular patches, so common on the chin, the commissures, and between the chin and the lower lip, and by the specific coryza, which is so frequent and so early a sign. If these lesions around the mouth have only existed a few days, we have not the same motive for authorising the continuation of the suckling. But then they should be healed as rapidly as possible, in order that the child may not suffer too much from the suspension of the suckling, which should then be continued until their cure." If such signs have not appeared, M. Diday, having assured himself, nevertheless, that syphilis is present, explains to the nurse that if she abandons the child (which she is usually very loth to do) it will almost surely die, while, if she continues to suckle it in spite of any danger she may run, she will have a great claim on its parents. To these latter we must explain the great sacrifice the woman is making, and that we have pledged their liberality to her, and that, in the event of their not complying with her just demands, and an action is ultimately brought, they must not rely on us to defend the course they have pursued.

We recently noticed M. Giraldès' protest against M. Bouvier's statement that chloroform was especially dangerous to children. This latter gentleman has addressed a note to the Society of Medicine denying that he had ever proscribed the use of chloroform for children, and stating that, as his paper in the *Bulletin de Thérapeutique* shows, he did just the contrary. M. Giraldès was pointed enough in his reply.

"I am," he says, "astonished at his letter, for it is no faithful echo of M. Bouvier's opinions. At the Surgical Society he stated that chloroform was *especially* dangerous to children, and in the *Bulletin de Thérapeutique* he says it is *even* so in children. I accept his view so far, but can go no further. Why did M. Bouvier seek out on every side for fatal cases of death during operations in children? Why did he collate and bring these to light if not to show the danger of chloroform for children? It is a bad service he has done to lay so much stress on the five or six unfortunate cases that have occurred. But what I maintain is, that M. Bouvier is no kind of authority in this matter, and that he is completely incompetent in regard to it. At the Children's Hospital he has only Medical wards under his charge, in which acute diseases alone are treated; and if he has employed chloroform, it has only been very rarely, and with excessive timidity. He is frightened at everything, and is not, therefore, competent in the matter."

This is pretty plain speaking. We should be glad on our part to know whether we understood M. Giraldès aright when on the former occasion we supposed him to state that there were several provincial Hospitals in France—that of Amiens amongst the number—at which operations are performed without the agency of anæsthetics.

PARLIAMENTARY. — THE MEDICAL OFFICER OF MOUNTJOY PRISON—SALE OF POISONS AND PHARMACY ACT AMENDMENT BILL—VACCINATION—POOR RELIEF BILL.

On Friday, June 12, in the House of Commons, in reply to Mr. Pim, the Earl of Mayo said that the only reason why the correspondence between the Treasury, the Irish Government, and Dr. McDonnell, relative to the change in the Medical management of Mountjoy Prison, had not been laid upon the table, was that it was not yet completely ready. He would take the earliest opportunity of producing it, but he was afraid it would not be ready for some days.

On Monday, in the House of Lords, on the order of the day for going into Committee upon the Sale of Poisons and Pharmacy Act Amendment Bill,

Lord Vaux (of Harrowden) expressed his wish that the provisions of the Bill should be extended to Ireland.

The Duke of Marlborough said that the Pharmaceutical Society was a voluntary one, and if there had been any other of the same character it would have been fair to consider its claims to be put upon an equal footing; but as this Society occupied the ground alone, having come forward in the public interests to promote examinations, it was desirable that it should have the advantage which the Bill would confer of conducting throughout the country such examinations of chemists as were necessary for the protection of the public. It was necessary, as these examinations were to be made compulsory upon all persons undertaking the trade of chemists and assuming that name, that the Government should have some control over the mode in which the examination was to be conducted; and to carry out that view he had given notice of an amendment, which was assented to by the noble Earl (Earl Granville) opposite. It proposed that the Privy Council should be the authority to see that these examinations were conducted in a proper manner and also that the Society should have the power to make regulations for the general sale of poisons, subject to the approval of the Privy Council. He concurred in the view that it would be better to look to these regulations as the means of effecting general security in point of detail than to attempt the embodiment of every minute provision in the strict terms of an Act of Parliament.

Lord Redesdale intimated his intention of introducing a clause to the effect that all poisons should be sold in a particular form of bottle, to be known as "the poison bottle."

The Bill passed through Committee.

In the House of Commons,

Sir J. Jervoise asked the Vice-President of the Privy Council his annual question as to the increase of vaccinated cases at the Small-pox Hospital.

Lord R. Montagu said he had not seen the report of the Hospital.

In the House of Lords on Tuesday evening, a short discussion arose in Committee on the Poor Relief Bill, Lord Taunton moving the rejection of Clause 9, which allowed imbeciles and idiots to be kept in workhouses instead of moved to proper county asylums. The question was pushed to a division, when a majority of 35—61 to 26—was against the clause, which was accordingly struck out, and the Bill passed through Committee.

The Report of Amendments on the Sale of Poisons Bill was agreed to, Lord Redesdale reserving his motion as to peculiar bottles for poisons until the third reading.

GRESHAM LECTURES.

DELIVERED IN TRINITY TERM

By E. SYMES THOMPSON, M.D.,
Gresham Professor of Medicine.

ON THE CAUSES, DIAGNOSIS, AND TREATMENT OF DISEASE.

Before it is possible to treat disease we must understand its nature and its cause. To expect any one to cure disease who is ignorant of the nature and functions of the body is as irrational as to expect a man to repair a broken-down locomotive who knows nothing of the machinery or the force by which it acts. If steam engines had been found in nature, we should have regarded the power of acting as an endowment till the part played by the steam had been detected, and we are so familiar with what we call the "functions" of the human body that we are satisfied to consider these as vital attributes or endowments, without seeking for their real source.

Vital force cannot move muscles, and, as a steam engine is a machine for applying force from fuel, so are the organs of the body machines for converting food into force, whether mechanical, chemical, nutritive, or nervous. A hundred years ago all force in the body was looked upon as *mathematical* or dynamical, like that of a machine; then as *chemical* or fermentative; then as *vital* and distinct from either. Strangely enough, modern science brings us back to a phraseology not unlike that of early Greece. *We* talk about "force," "heat," "motion," etc., and so did the old Greeks—*e.g.*, Thales said the soul (ψυχή, or vital principle) was a *motive force*, something like the magnet which moved iron. Democritus thought "life" was a sort of fire or heat. Alcmæon united it with the heavenly bodies—sun, moon, and stars—because it was a principle of perpetual motion. A fourth (Hippo) looked for it in water, and a fifth (Critias) in blood. Three qualities they all tended to bring out in this subtle soul or principle of human life—*i.e.*, movement, perception, incorporeality. How close these views to *our* discoveries of electricity, nerve force, etc.!

The philosopher Aristotle was beyond all these, and saw clearly that any dissolution between the body and the soul, or ψυχή, was death to both, and that it was more rational to speak of the Psyche or human life as a function of the body (in action) than the body as a tabernacle or dwelling-place of the Psyche. The same view we hold when we say life is not independent of matter, but is a *condition* of matter. Contractility, sensibility, power of growth, mental acts, etc., are properties communicated to matter. The forces acting in living structures are, like the materials of which they are built, taken from and restored to the inorganic universe around. Force is never created—it is only transmuted.

Solar forces acting on carbonic acid and water deoxidise them and build up plant structure. Plants consumed as food yield animal heat, muscular, nervous, or mental power, for there is no break between mind and matter: they are undivided twins.

The lecturer introduced a caution lest, in dealing with the phenomena of life from a material point of view, it should be forgotten that there is in man something altogether above matter and mechanical restrictions.

Force emanates from the Divine will operating on inorganic matter, is manifested as electricity, magnetism, gravitation, heat, light, chemical action, and mechanical motion. When directed through organised structures, it effects the operations of growth and development, and is metamorphosed, through the agency of the machinery thus generated, into muscular power, nervous or mental energy. It is no more a mystery that mind and body are united than that they should be separated—it is a fact of the universe.

Experiments illustrating the development of heat and electricity from motion—of heat and light from chemical action, as well as from electricity, were exhibited. The slow oxidation of a solution of phosphorus in bisulphide of carbon was shown to be not unlike the oxidation which goes on in the animal body. Cheese burnt in oxygen gas was shown (by the lime-water test) to have developed carbonic acid just as it does when taken as food. Other experiments were also shown illustrating the origin of force in the body and the conversion of chemical and electrical into muscular and nervous force.

The oxidation of food results in a definite amount of force which may be employed in mental or bodily work. Power available in the body is exactly dependent on the supply of food to be oxidised and of air to oxidise it. What is true of the locomotive engine is true of the man.

The brain is made alive by nerve currents derived from oxidation in the blood. Feeling, will, intellect, cannot be vivid or intense if the blood is not rich and abundant, and the air pure. In hard "head-work" blood is drawn to the brain, and oxidation goes on there with great activity. It has been said that in intense mental excitement one-half of the oxidation in the body is expended in keeping up the cerebral fire, so that other organs are starved, digestion stopped, muscular vigour abates, nutrition languishes, and—if the excitement is long continued—the physical powers deteriorate.

Protracted worry or anxiety, like overwork of mind, uses up force, and leaves less available for muscular or other work. Again, if the food is but just sufficient for muscular work, the digestive and mental processes deteriorate. For continuous deep thought, rest of body is desirable, and many people find they can compose their best works in bed, while others find quiet walking no interference with mental activity; vigorous exercise and deep thought are, however, rarely compatible.

A want of attention to the universal law of supply and demand is a fertile source of disease. It must not be forgotten that life is like a taper and may be burnt at both ends!

The Professor alluded to former lectures (published in abstract in this Journal) in which he had pointed out the value

of fresh air, pure water, and good food in the preservation of health. The want of these is a most fertile cause of disease.

Experiments were shown on diffusion, illustrating the importance of allowing outer air to mix freely with and purify air in the house, and of pure running water to mix with what is stagnant and therefore impure.(a)

Further investigation into the diffusion of disease—a subject as yet in its infancy—cannot fail to lead to valuable results.

The relation of disease to geological formation was referred to; the diminution of phthisis in proportion to the efficiency of subsoil drainage; the rarity of cutaneous affections among the dolomite mountains and in parts of Sweden where the arsenical limestone is present, etc.

The laws of contagion are indeed intricate, but the causes of disease are few and simple. A poison which in one organism will give rise to typhoid fever will in another produce ague, and the same is true probably with regard to scarlatina, diphtheria, and many other maladies. In the late Abyssinian campaign the diseases from which our army suffered were very various, but all distinctly traced by the Medical officers to an aguish cause—*i.e.* to "malaria."

MR. LE GROS CLARK'S THIRD LECTURE AT THE ROYAL COLLEGE OF SURGEONS,

ON THE PRINCIPLES OF SURGICAL DIAGNOSIS, ESPECIALLY IN REFERENCE TO SHOCK AND VISCERAL LESIONS.

June 5, 1868.

Mr. Clark commenced his third lecture by glancing at the significance of pain and sleep in relation to diagnosis. Pain, he said, is familiar to all, but the relative sensitiveness of persons varies, and must be allowed for in using pain as a diagnostic symptom. Its varieties are so numerous that a whole vocabulary of epithets has been employed to denote them, and their alliance with special diseases is often a valuable element in diagnosis. Intermittent pain often distinguishes neuralgia from inflammation; pressure, which relieves the former, only aggravates the latter, while cold has a converse effect. Sympathetic pain is often a valuable guide in diagnosis, as that at the end of the penis in calculus. Long-continued pain is exhausting, but *per se* very rarely fatal. The shock of pain has been overestimated: it is difficult to separate it, in operations, from that due to other causes. There is no evidence to show that operations are rendered less fatal by the agency of chloroform in securing the patient from suffering.

Though sleep is apparently partial and fickle in its visits, there is always a reason for its absence, its restless presence, or its protracted sojourn; and hence its value in diagnosis. Sleep is rest of the brain; muscular rest alone is unrefreshing. The mind must loose its hold of the outer world, and the organic functions must be undisturbed. Healthy sleep must be distinguished from that of exhaustion and vascular repletion, coma, etc., but its absence is more significant than its disturbed conditions. Wakefulness characterises all forms of nervous excitement, and, when combined with a quiet pulse and diminished sensibility to pain, is diagnostic of it. Sleep from opium, in this condition, is deep, prolonged, and undisturbed. But in febrile diseases sleep, natural or artificial, is generally troubled with distressing dreams, and broken by startled wakings. It this way much may be learned in diagnosis in watching the effect of anodynes.

In noting the *objective* signs of Surgical disease, it is often necessary to compare the two sides of the body, and it is noteworthy that this can be most satisfactorily done when one sense alone is employed at a time. Local changes in colour are often of considerable importance. Local changes of temperature also afford valuable information, and the normal and abnormal variations in different parts of the body offer a wide field for investigation. Crepitus is, perhaps, a less valuable sign of fracture than is commonly believed. Often obscure, it is liable to be confused with other similar sensations. Fluctuation is a sign the value of which depends more on the tact of the Surgeon in detecting it than on its intrinsic worth. Where unmistakable, there are generally other signs of the condition present; where indistinct, its value is greatly enhanced in the hands of a skilled manipulator. In seeking for it a finger of each hand should be used in preference to two fingers of the same hand. But it is a sign open to many sources of fallacy, and when most distinct is no proof that the substance is fluid and not gelatiniform.

Treatment is sometimes extremely useful in diagnosis. Active treatment, however, with this object is rarely justifiable, and exploratory operations should have attached to them the condition that the patient's chance of recovery will not be materially endangered by the proceeding.

Having apologised for introducing so much that was elementary into his observations, Mr. Clark stated that he would next proceed to the main object of his lectures, the exemplification of these principles of diagnosis in relation to shock and visceral lesions.

The symptoms characteristic of shock are often present under circumstances which would scarcely justify the use of the word. In the moribund we may notice a closely allied condition; and this is not surprising, since the state of shock is, in reality, a critical one, and does sometimes terminate fatally without reaction. The peculiarity of shock is the vital depression, generally sudden, which follows the exciting cause, whatever that may be, and which is marked by an influence, primarily on the nervous centres and heart, and secondarily, by implication or sympathy, on the organs of respiration, assimilation, secretion, and the senses. The causes may be physical, mental, and toxæmic. In the first, as when a limb is crushed, the symptoms are often carried to the highest degree. When the injury is received directly on the head, the effects upon the brain modify the other symptoms considerably. Mental emotion alone may give rise to shock, and no doubt that of an operation is often aggravated by the effects of anxious suspense. Some of the symptoms of blood-poisoning resemble those of shock so closely that their identity can scarcely be doubted. The shock varies in amount in different individuals, being enhanced by certain mental peculiarities and the nervous temperament, and especially by the presence of structural disease in some important viscus. The latter, especially disease of the kidney, is probably a common cause of death after injuries and operations. Before, the organs of elimination could do their work by assisting one another, but in the urgent demands consequent on the effects of the operation, the eliminative powers fail, and death results from the retention in the blood of the products of organic combustion. Even without organic change, this deranged elimination is a conceivable cause of death after operation in many cases in which pyæmia has not set in, and no textural alteration of organs can be discovered.

The effects of shock vary at different ages. In the young, the ordinary impressibility of childhood is manifested; but the shock is simple, uncomplicated by mental influences, and reaction is rapid in favourable cases. Indeed, it would appear that deferred reaction in early life means no reaction. In old age, on the contrary, the effect of shock is less profound, but more often fatal, in consequence of the impaired resiliency of the organism. It is in the prime of life that the consequences of shock are most pronounced and the reaction most energetic. In that form of shock consequent on railway collision, usually the remote sequelæ are more noticeable than the immediate effects, and they are perhaps more frequently observed in adults than in the very young or the aged. Unfortunately there is a seriously disturbing agent in the temptation to the patient, from pecuniary causes, to make the most of his case. A great feature of many of these cases is that the shock at the time is comparatively slight and transient. The spine is roughly jarred, and the entire nervous system simultaneously agitated. There is therefore no persistent incapacity, as in ordinary concussion, but a prolonged series of symptoms ensue, directly traceable to the shock, often becoming more severe as time elapses. The lecturer then glanced at the remarkable and, indeed, almost uniform diversity of opinion which these cases elicit from Medical witnesses in courts of justice. This is partly due, he thinks, to the deception so often practised in these cases occasioning suspicion in the mind of one Medical man—a suspicion in many cases ripened, by the investigation, into assurance; whereas confidence, apparently well founded, may induce another Medical man to take an entirely opposite view of the case. But, even allowing

(a) Sewage mixed with twelve times its bulk of water, and running nine miles, is not appreciably (to taste, smell, or analysis) impure.—*Frankland.*

for this cause, it must be confessed that there is enough reason left for the criticism of the public, and every effort should be made to get rid of the consequent scandal to the Profession. The only remedy is perhaps too Utopian to hope for, too simple to realise; it is that, when Medical men are engaged for the prosecution or the defence in such cases, they should make it conditional to be allowed to consult together, and at least attempt to arrive at a true opinion of the legal validity of the case, leaving of course the amount of compensation to be adjudged by the jury.

The influence of shock upon the nervous system is to lower its action. Shock is impaired nerve function, though the converse does not hold good. Many of the functions suspended in paraplegia are also affected in shock. The influence of shock on the heart introduces the question of the dependence of this organ on nerve energy for its contractility. Its independence has been assumed by many physiologists, while admitting that it is under the control of the nervous system. No doubt isolated fibres of any muscle possess contractile power, but rhythmic action implies a co-ordinating influence derived probably from the scattered nerve ganglia which pervade its structure. The same is the case with the bowel.

Temperature is a sign of considerable importance as diagnostic of the intensity of shock and the energy of reaction. In some observations on this, Mr. Clark stated that he has obtained results corresponding in many, though not in all particulars, with those arrived at by Mr. Jordan, of Birmingham. Generally the temperature had gone down one or two degrees by the time of the patient's admission into the Hospital, and it generally rose to over 100° and below 103° within the next thirty-six or forty-eight hours. When the shock was complicated with hæmorrhage, even moderate in amount, the fall was in some instances in excess of what might have been expected, more than that of the simple shock plus the consequence of the simple hæmorrhage. In one remarkable case of cut throat in a man aged 63, the thermometer registered 91·2° an hour after the injury, and remained at this for another hour. The highest point it reached [illegible] noing reaction was 100·1° in twenty-four hours. The hæ[illegible]ot excessive, and the man's normal temperature, as tested after recovery, was 98·4°. Probably, in his case, mental shock may have had a considerable influence in aggravating the effect of the physical lesion. In rigor the temperature rises shortly before the commencement of the attack, and remains high for a variable period. In the rigor of pyæmia the height rises with the acuteness of the disease between 100° and 106°. In capital operations there was usually noticed a fall of half a degree during or after the operation in those cases which recovered, and chloroform seemed to exercise little or no influence on the temperature under these circumstances. It rarely fell below 97° during the shock under the operation. Mr. Jordan says the temperature during an amputation always fell 1° to 2° whilst the bone was being sawn, but in a case tested by the lecturer this was not the case. In the reaction succeeding an operation, if the temperature exceed 104°, the prognosis is decidedly unfavourable —not necessarily so if no rise occurs, provided the general condition of the patient be not otherwise unsatisfactory. The relation between the temperature, the pulse, and the respiration has not the same significance in injuries as in Medical cases. The maximum temperature was attained in from twenty-four to forty-eight hours in cases after operation which recovered, and it subsequently gradually fell to the normal. The temperature just before death was higher in inflammation following brain injuries than in others, a peculiarity also observed in acute sthenic diseases. The highest death temperature recorded was 106°. When no reaction has taken place after an injury, the temperature has been registered before death as low as 89·6°. The lowest temperature in which recovery took place was in the case of cut throat before alluded to; in several other cases of shock which recovered, it went as low as from 93° to 96°. The highest temperature in reaction after which recovery took place was 105°, after complicated fracture.

Reaction implies pre-existing shock. It is the rebound of the organism, bowed down, but not broken, exalting its functions beyond the normal, and which may even be in its excess destructive. But it rarely is so, except in head injuries or those attended by hæmorrhage, and, as experience ripens, the Surgeon views it with less alarm as the precursor of healthy repair. Indeed, it is far from being a satisfactory sign if the patient's system, a day or two after an operation, betray no signs of the recent ordeal. In ordinary cases excess is more promising than deficiency of reaction. In the febrile condition which follows a few days later, the tongue becomes a valuable index. If the tongue be moist, and not coated, though white, food may be freely given; but if dry, glazed, and furred, especially with an unhealthy aspect of the wound, it is a just reason for alarm, being a sign that a valuable auxiliary is lost in the digestive organs. Food is worse than useless, and stimulants alone remain.

The question of operating in shock is a very important one. Operations of some severity may be undertaken in shock without adding to the risk, if loss of blood is avoided. The period at which Nature most resents interference is when she is making an effort to secure reaction, the effect being then similar to recurrent hæmorrhage. During commencing reaction hæmorrhage and recurrent shock are equally dangerous, and, the two combined, almost certainly fatal. We must distinguish, however, those cases in which profound shock ensues on some trivial injury, in which case it is better to wait for reaction before any fresh shock is inflicted, for the expenditure of nerve force is rather apparent than real.

Stimulants have a certain diagnostic value in shock; if the intensity of the symptoms justifies their use, and if no response is given by the heart to the whip and spur, there is reason for fearing that the shock is the warning of a fatal visceral lesion.

Shock, however severe, is very rarely in itself immediately fatal, and when it is so, probably the heart's action stops in consequence of paralysis of the brain. In death from a blow upon the epigastrium, it is probable that the shock to the splanchnic branches of the pneumogastric is transmitted up that nerve to the brain paralysing it, and in consequence the influence of the cardiac branches of the sympathetic is arrested, and the heart stops. The function of the vagus Mr. Clark views as purely centripetal, conveying sensations from the stomach and the lungs, and he thinks its inhibitory influence on the heart is quite hypothetical.

After giving an outline of the branches of experiment and research which may throw light on the phenomena of the nervous system, Mr. Clark concluded with an eloquent glance at the progress of generalisation in physics and general science.

BANQUET TO SIR W. JENNER, BART.

The Professors and former students of University College entertained Sir William Jenner at a complimentary banquet at Willis's Rooms on Thursday evening, June 11. About 220 gentlemen sat down to dinner, among whom were Chief Justice Carr, of Sierra Leone; Professors Sharpey, Marshall, Erichsen, Reynolds, Grant, Hewitt, Wilson Fox, Ringer, Malden, Key, etc.; Sir Henry Thompson, Sir Henry Cooper (of Hull), Drs. Richardson, Sieveking, Sankey, Lankester, Lingen (of Hereford), Reddoe (of Clifton), Miller (of Wolverhampton), Murray (of Newcastle); and James Paget, George Pollock, R. Quain, Spencer Wells, Ernest Hart, Berkeley Hill, J. F. Streatfeild, Charles Jenner (of Edinburgh), and K. Jenner (of Portsmouth), Esqs. The chair was occupied by Dr. E. A. Parkes, F.R.S., of Netley Hospital, Southampton. After dinner and the usual loyal toasts had been duly honoured,

Mr. G. V. Poore read an address from the students of University College, handsomely illuminated and bound, which he afterwards presented to Sir William Jenner. It congratulated him upon the high honour he had recently received, thanked him for the benefit they had derived from his instruction, and expressed a hope that the privilege of that instruction might be long enjoyed by the students of University College Hospital.

The Chairman, in proposing the toast of the evening, the health of Sir W. Jenner, said: Though many present may be more competent to be your spokesman, yet I have a peculiar claim, since no person present, except his own brothers, has known Sir W. Jenner longer than I have. Thirty-four years ago our friendship commenced, and during that time it has been undimmed by a single difference and unshadowed by a single cloud. It was whilst attending lectures together that I first formed with him an acquaintance which soon ripened into friendship, and even then learned to respect the force of an intellect clear, large, and robust, and to appreciate the charms of a character singularly honest and sincere. Some years after, on my return from a short foreign service, I found him

commencing the slow ascent of the professional ladder. It would, indeed, then have surprised him could he have known that in less than twenty years he would have climbed its topmost round. It is customary to say of successful men that they had unusual opportunities, but our guest rather made than found them, or, at least, he went and searched for them, and his great opportunity lay in this—that while laboriously engaged in practice in London he investigated one of the most difficult Medical problems of our time, and undertook, at the Fever Hospital, an exhaustive inquiry into the forms of fever. I do no injustice to other labourers in the same field when I say that he solved that most difficult problem. The speaker then proceeded to show how Sir William Jenner, in that investigation, first showed the true qualities of his mind, his precise knowledge of what he wanted to do, and of the means of doing it. He evolved light out of darkness. A few clear pithy chapters decided the question. But the labour had been enormous, and not without danger. In 1847 he caught typhus, and, a few years later, typhoid fever, from each of which he happily recovered, and no doubt would have been gratified could he have seen how completely he went through the typical form of each disease. The opportunity which he thus found and embraced was the first flow of the tide which led their friend on to fortune, for it attracted the attention of one who was largely to influence his fortunes in after life—Sir James Clark. The same high mental qualities which distinguished his papers on fever were also shown in various other researches, on rickets, emphysema, etc. Since 1847 he had filled various posts in University College and Hospital, and of the estimation in which his clinical teaching was held they had had to-night a most gratifying proof. In 1861, Dr. Baly's death rendered vacant the most important office to which a Physician could aspire, and when their friend was selected to fill the proud post of Medical adviser to his sovereign, there was not a single dissentient from the justice of the appointment; and his ability and knowledge were so conspicuous, that though a decree of Providence removed from them the great and wise Prince whose loss could not be overrated, yet the Queen's confidence in him was even increased by her knowledge of his behaviour during that trying time. Since then fortune had not ceased to follow him, and now his friends were met to show that they appreciated the high honour he had just received. But they had not met to honour merely the successful man, but rather those qualities which had led to his success—his earnestness, truth, energy, and devotion. He called on them to drink "the health of Sir William Jenner, and may he long live to enjoy the honour which he has so fairly worked for and so fairly won." (Loud cheers.)

Sir William Jenner, who rose amid loud applause, said:—Mr. Chairman and gentlemen,—If I had had more to say than to thank you heartily and sincerely, to tell you how very proud I am of the way in which you have received my name, I fear that the kind manner in which you have welcomed me would have put it from my mind. I thank you all, then, for being here to-night, and for having received my health so kindly, so warmly. I thank those who arranged it for having placed in the chair one whom I, in common with all who have known him, have loved and valued. The desire to possess his esteem has been that which has encouraged me from my earliest student days when I used to wander with him over the fields of Highgate, and Hampstead, and Hendon. It stimulated me and others in what we now hope was a good career. To-night his kindly heart, his kindly feeling have led him to draw largely from a faculty which I knew he possessed, but hardly thought he possessed in so great a degree—I mean his imagination. He has painted me as he thinks I ought to be, and I am glad that he has done so for one reason—it will tempt me forward to strive after the ideal he has presented. Sir William Jenner then alluded to the hesitation he felt, when asked to come there, in accepting so conspicuous a position. It was, however, represented to him that the meeting would be essentially connected with University College, and consist of some of his old teachers, his fellow-students, and his own former pupils, and on that understanding he ventured to accept the invitation. He owed very much to his Professional brethren, for he commenced with little extraneous aid. But at each step he had made he had found a Professional brother ready to assist him, and each advance that he had made in life, even to the last, had been the direct, not indirect, result of the assistance of his Professional friends. His own experience, as well as their presence there that night, were a sufficient reply to the charge which was sometimes made against them of Professional jealousy. The speaker then proceeded:—To the students who have presented this address to me I would also return my most grateful thanks. I can assure them that the very happiest hours of my life have been spent in giving instruction to them and to their predecessors. In the nature of things there can be no greater pleasure than to pour instruction into the minds of those who are willing to receive it—to give them the means of disseminating knowledge, of relieving suffering, of saving human life. And I must say that the students I have had have been most attentive and diligent, and their diligence has been shown by their success in after life. But we must remember that success may not attend that which really deserves it. Only two things really deserve success—one is work, real work; and the other is that it should be done loyally, with an earnest desire to know and feel the truth. Then, gentlemen, you will attain to honour—not perhaps to outward honour, to titular dignity, which depend on a variety of accidental circumstances, trivial in themselves, but you will attain what is far more important—you will be the gold, although the impress of the guinea may not be marked upon it. I may say that the one bitter drop in the cup of happiness which has been offered me to-night is the consciousness that others present have deserved much more richly than I do the honour to which I may have attained, because I believe in my heart that they have worked harder, more successfully, and with better result. In conclusion, Sir W. Jenner said he would propose to them a toast to which he was sure all would drink cheerfully—"Success to University College." Without University College he should not have been what he was, and most present would remember gratefully the instruction they had received there. Further, it had great claims on the London world as the first to establish a system of Medical teaching complete in all its branches. By uniting art and Medicine in one institution, and entitling its teachers "professors," it added a certain dignity to Medical teaching. It had exemplified those principles of religious liberty which were now beginning to make way even in the older Universities, and it had set a good example in its system of selecting the best teachers who offered themselves, wherever they might come from. He should couple with the toast the name of one who was an illustration of the advantage of free-trade in knowledge, Dr. Sharpey, whose name was more intimately associated with their College than with the place which had known him in his earlier days. The speaker concluded by calling upon them to drink "Success to University College."

The toast was then acknowledged in appropriate terms by Dr. Sharpey, who alluded to the spread which the principles on which the College was instituted had made since the time he first joined it, when their chairman and their guest were fellow-students there. He then alluded to the influence of University College on the foundation of the University of London.

Prof. Malden, M.A., proposed "The Health of the former Professors of University College," which was responded to by Mr. Quain. In doing so and congratulating his friend on the dignity he had received, he said that it must be a gratification to him to know that he owed it, not to the recommendation of any person whatever, but to the spontaneous sense of his public services and of his eminence as a Physician entertained by the highest person in the realm. He concluded by proposing the health of the chairman.

Dr. Parkes having briefly acknowledged the compliment, the "Health of the Ladies" closed the proceedings.

Sir William Wilde has been entertaining a large party of the members of the Medico-Philosophical Society and other Medical visitors at Moytura House, on the banks of Lough Corrib.

Yellow Fever in Peru.—Advices from Lima report a terrible state of things, owing to the alarming extension of the yellow-fever epidemic. The disease, say the local papers, is making rapid strides, no less than from 150 to 200 persons dying every day, and no less than 2500 cases in the Hospitals. Commerce is completely paralysed, and meetings of those citizens not quite panic-stricken are held in various quarters. All schools, theatres, and other places of public resort have been closed by order of the Government. The authorities are, however, taking active measures to provide for the treatment of the sick at their own homes, and we believe that there is every hope that before long the plague may be much diminished in intensity, if not entirely suppressed.

REVIEWS.

Ueber Erkrankungen des Rückenmarks bei der allgemeinen progressiven Paralyse der Irren. Von Dr. C. Westphal in Berlin.

On Affections of the Spinal Cord in Progressive General Paralysis of the Insane. By Dr. C. Westphal, of Berlin. Pp. 168. Reprint from Virchow's *Archiv*, vol. xxxix. 1867.

A few years ago Dr. Westphal published some cases of general paralysis in which the mental derangement had long been preceded by impairment of the motor functions of the lower extremities, similar to that of locomotor ataxy, and due, as in that disease, to the so-called grey degeneration of the spinal cord. In other cases, and this seemed to be the more common form, he found the motility to become affected only when, or some time after, the mental disease had appeared, and in these cases it remained doubtful whether the symptoms were dependent upon the cerebral disease, or, as in those rarer instances, upon disease of the spinal cord. Since, Dr. Westphal has continued his researches in this direction, and it is the object of this paper to show *that affections of the spinal cord in progressive paralysis of the insane are of general occurrence*, that in all patients in whom the motor functions of the limbs are impaired, these symptoms are due to disease of the spinal cord, and that the cord may even be found affected before the motility of the extremities shows any particular derangement. At this conclusion the author has arrived by the investigation of fifteen additional cases, thirteen of which were examined after death. These cases are fully reported, and great credit is due to the author for the clearness and completeness of these reports no less than for the care and exactness of the clinical and anatomical investigation of the cases. He then proceeds to analyse them, together with some previously published by him (making in all nineteen observations), as to their pathological anatomy, symptoms, and ætiology. We will here more particularly refer to the anatomical investigations as the most important part of Dr. Westphal's work, and as principally containing the proof of his proposition.

Out of seventeen cases examined after death, the spinal cord appeared diseased, on mere inspection by the naked eye, in ten cases, in all of which the posterior columns were affected, and in these the characteristic gait of locomotor ataxy, as well as an increase of the unsteadiness on standing when the eyes were closed, had been observed during life. In seven cases in which these symptoms had been absent, and where the motility had been either not impaired at all, or at least not in any characteristic form, an affection of the spinal cord was nevertheless revealed by the microscope. The posterior roots were also found atrophic in several cases. Six out of the seven cases where the spinal cord did not appear to the naked eye to be affected, yet where by the microscope the lateral columns were found to be diseased, either alone or together with the posterior ones, did not present the anatomical appearances usually met with in cases of grey degeneration, but principally an accumulation of granular cells along the nerve-fibres. Thus there are two different kinds of degeneration to be found in the spinal cords of such patients, viz :—

(1) The usual form of grey degeneration and (2) fatty degeneration—chronic myelitis.

The alteration due to this second form becomes also, the author informs us, distinguishable to the naked eye, by the action of a solution of bichromate of potash on the cord, when those places which contain granular cells appear of a lighter tint, approaching that which the grey substance usually assumes, whilst the normal white substance is of a dark brown colour. We mention this here, as it may serve as a valuable guide to the diseased parts; but the author has not confined himself to this evidence in deciding whether a place was affected or not, but has carefully searched through the whole of the spinal cord with the microscope. These investigations are fully described and illustrated by a plate.

With regard to the diagnosis of spinal affections in general paralysis of the insane, there cannot be any difficulty in the first class of cases, in which, from the peculiar symptoms, grey degeneration of the posterior columns of the cord may be anticipated. This particular affection is, however, in these cases not exclusively associated with the gait of ataxy, for Dr. Westphal found it also in a few cases where no characteristic motor symptoms had been present. In the second class of cases there are no special symptoms to indicate disease of the cord, but the author thinks that, a spinal affection having been anatomically demonstrated even in these, we may safely presume the cord to be affected in all cases of general paralysis.

In conclusion the author considers the relation of the spinal to the cerebral disease, but neither the clinical history of the cases nor the anatomical appearances seem to him to give conclusive evidence of a direct connexion between the two lesions, of a spreading of the disease from the spinal cord upwards to the brain or *vice versâ*. Much as the nature and extent of the myelitic affection resembled that demonstrated by Türck as secondary to affections of certain localities of the brain, the author could not find, by special researches on this point, any particular alteration in the great ganglia of the brain.

We have here only indicated the principal facts contained in Dr. Westphal's paper, which we warmly recommend to careful study as a very important contribution to the pathology not only of general paralysis, but of the nervous system generally.

A Manual of Materia Medica and Therapeutics, including the Preparations of the British Pharmacopœia (1867) *and many other approved Medicines.* By J. Forbes Royle, M.D., F.R.S., and F. W. Headland, M.D., B.A., F.L.S. Fifth Edition. London: John Churchill and Sons. Pp. 824.

Of the many works which have recently issued from the press on the subject of Materia Medica none come to us more warmly recommended or possessing sounder claims on our favourable recognition than the work of Dr. Forbes Royle and Dr. Headland. If in its earlier editions the work possessed a fault, it was that of too great erudition, which, however useful to the professed student of Materia Medica or natural history, was somewhat cumbrous for the ordinary Medical man. On the other hand, whilst the natural history of remedies was gone into at great length, the portion of the work relating to their action on the human body in health and disease was somewhat abbreviated. To modify the work so as to give it a wider usefulness was the task assigned to Dr. Headland, a work for which his great acquirements in this department of knowledge especially adapted him. On the result both author and publisher may be congratulated. In the present edition every effort has been made to secure the greatest amount of good material in the smallest space, and to bring the work up to the level of the most recent improvements. To this end several new cuts have been added, and the letter-press has been considerably extended. This enlargement of the volume had become absolutely necessary, owing to the addition of several new substances to the national Pharmacopœia; but, besides, this volume contains an account of the effects of many substances not ordinarily encountered in works of this class. Connected with this question of improvement in the volume is one fact which we scarcely know how to treat—viz., the retention of the old chemical notation pure and simple, although the old and the new are contrasted at the end of the volume. Now, in this, Dr. Headland has no mean support, for Professor Bloxam has done the same thing in the last edition of his popular work on chemistry, and no doubt at the present time more men reading Materia Medica are familiar with the old than with the new notation; but, prospectively, it would probably have been advantageous to have given them both. Of course the great difficulty is to know which of the proposed notations to adopt in a work of this kind. The new remedies introduced, as carbolic acid, Calabar bean, veratrum viride, are well and shortly described. The various plans of preparing carbolic acid from tar and benzine are given, its impurities pointed out, and its therapeutic values shortly enumerated. The Calabar bean, illustrated by a fine engraving, is well described, and its botanical description given, as is, indeed, the rule throughout the book. The same may be said of the veratrum viride, which is now making its way on this side of the Atlantic as a remedy for rheumatism, pneumonia, and some other disorders. One of the most valuable portions of the work is that by Dr. Headland on aconitine, giving an account of his investigations into that substance. So, again, the article on opium, especially on that grown in India, is of standard authority, entering more fully into the subject than any other of our recent works. Probably, however, if called upon to point out the most important feature in the volume, we should select the notices of little-known remedies. These are at once suggestive to men in practice in this country, and, in many instances, of vital importance to those abroad. So many of our young Medical men now go to

other countries, in which Medical resources are far from abundant, that it becomes of the utmost importance they should be able to utilise those afforded by the place itself to the greatest possible extent. In this way the manual of Drs. Royle and Headland has no rival. Compact and portable, combining clear botanical and pharmacological descriptions with good and telling illustrations, enumerating the properties of nearly all known drugs, Pharmacopœial as well as otherwise, it constitutes the best companion of the young Medical man called upon to practise in foreign lands.

GENERAL CORRESPONDENCE.

THE PHARMACY BILL.

LETTER FROM DR. R. H. S. CARPENTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—As Dr. Redwood thinks he "may safely challenge you to adduce any evidence" to prove that the granting of certificates to chemists and druggists of their knowledge of the properties and the compounding of medicines "having contributed in any way to foster counter practice," I am desirous of stating that I have myself known several instances where the certificate given by the Pharmaceutical Society has been used expressly for the purpose of deluding the public into a belief that its possessor was thus guaranteed to have a real Medical knowledge. In these instances the parties have been prescribing chemists—"practical chemists" they have styled themselves—and from one of the shops of these practising druggists I have known of two fatal cases of poisoning—one by the acetate of lead, the other by the essential oil of bitter almonds, whilst from the same shop another case of poisoning by laudanum, which came under my care, recovered, and still another case was so profusely salivated that life for some days was almost despaired of. I know, too, of another kind of certificate which is used to mislead the public into a belief that its holder is a Medical man, and that is the licence of the Hall to compounders of medicines to act as assistants to Medical men. The person alluded to styles himself "Assistant-Licentiate of the Society of Apothecaries, London," and then, by handbills, invites the public to seek his aid in both Surgical and Medical cases; yet the Hall does not seem disposed to interfere to prevent the assumption of this spurious title. If Dr. Redwood wishes to "challenge" still further, I can mention to him a case where the Hall prosecuted, and obtained a conviction in the county court against, a person holding a certificate from the Pharmaceutical Society for acting as a Medical Practitioner.

By all means educate druggists, legislate again to prevent the indiscriminate sale of poisons, but, at the same time, introduce some clause to prevent these said druggists becoming, under the cloak of a druggist's certificate, still more dangerous to the public than most assuredly they even now are. I am, &c.

R. H. S. CARPENTER, L.R.C.P. Lond. and L.S.A.

Red House, Crook, Durham.

THE COMMITTEE ON ACUPRESSURE AND TORSION.

LETTER FROM MR. A. BRUCE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the name of a Committee of the Clinical Society appointed to consider the subjects of Acupressure and Torsion, I shall feel obliged by the favour of an early insertion of the enclosed address to the Metropolitan Surgeons.

I am, &c.

ALEXANDER BRUCE,

Honorary Secretary to the Committee.

8, Old Cavendish-street, W.

A Committee has been appointed by the Council of the Clinical Society to investigate, by the collection of clinical facts, the value of acupressure and torsion as means of arresting Surgical hæmorrhage. The Committee find, however, that it is impossible to prosecute this inquiry without the hearty co-operation of the Metropolitan Surgeons, and will, therefore, feel obliged to any gentleman who will kindly give timely notice to the Honorary Secretary of any operation in which either of these methods is to be adopted, in order that one or more of the Committee may be enabled to attend.

THE DEATHS FROM LIGHTNING AT EWELL.

LETTER FROM DR. G. R. BARNES.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your journal of last week a letter appears from Mr. H. Sutherland, student of St. George's Hospital, with "notes" on the post-mortem examination of a man struck by lightning at Ewell. The notes appear to me to contain some inaccuracies, and I must beg of you, therefore, to afford me space for the following more detailed account of an occurrence which has ended in the loss of a couple of lives, and produced an impression here not soon to be forgotten.

On May 29, the day of the Oaks, a very violent thunderstorm broke over Ewell, in the course of which I was summoned by the police to attend two men who had been struck by lightning. When the storm came on, these men, who were driving to the Oaks, dismounted and took shelter from the heavy rain under a tall chestnut tree, where they stood by the side of their horse. Both horse and men were struck down, one of the men being killed on the spot. They were found lying on their backs motionless, the head of the horse by the feet of the deceased. The men were at once removed to the Green Man Inn, Ewell, and my friend Dr. Stacpoole, who happened to be near, was called in. When I arrived, Dr. Stacpoole was already engaged applying mustard restoratives to the survivor. His condition was as follows:—He lay motionless and unconscious, with a cold surface, especially on the right side; bluish-looking; face dark and puffy. His general aspect, in short, was that of apnœa. Pulse small, feeble; respiration slow and imperfect, without stertor; pupils contracted, sluggish, equal. After mustard had been applied to the epigastrium, soles of the feet, etc., and an enema of turpentine and brandy given, the circulation and respiration gradually improved, the countenance became more natural, he moved the left arm, and evinced other signs of returning sensation. The right side was paralysed, and blood issued from the right ear. There was a small graze of the skin over the right temple. Over the mastoid process on this side the hair was singed, and the skin down the neck scorched, exactly the same as from a blast of powder. The cuticle over this part subsequently shrivelled up, and commenced to peel away. The neckerchief was scorched, and a line on the shirt round the neck and down the chest marked where the watch-chain lay. This was of gold, and fused into small fragments. The watch was corroded on its outer case, the glass and dial pulverised, and the works filled with the *débris*. The watch had burnt through the pocket, and was found in the trousers. The skin in the course of the chain was reddened, and the abdomen, at the spot where the watch lay, was burnt so as subsequently to raise a blister and produce an eschar. This was several inches long, reaching nearly to Poupart's ligament, and another patch existed on the thigh. They were produced by the sliding down of the watch. Along the inside of the thigh to below the knee a band of congestion was visible, and from this to the inner ankle an irregular seared strip of skin, forming subsequently a dry blackened eschar. This terminated an inch above the inner ankle in a round black spot the size of a sixpence. The right leg of the trousers was slit down, and the boot, a Wellington, burst open at each side and torn across at the ankle, marking the forcible exit of the electric discharge. Such were the appearances immediately following the occurrence.

The companion, who had been killed, seemed to have been struck in a similar manner on the side of the head. The hair was singed, and the neck and chest scorched. He had neither chain nor watch, but on the anterior surface of the chest over the fourth rib on the left side, an inch from the sternum, was a circular wound into which the finger readily passed. It could not be traced, however, in any particular direction, and he bore no marks of injury below that point. Rigor mortis was observed twelve hours after death.

Returning to the former case, we ascertained that his name was Richard Drapper, aged 41, a publican, formerly a smith, and always a robust healthy man.

He was removed to bed, and when seen at 8 p.m. reaction was fully established. The pulse 90 and full, respiration heavy, but not stertorous. There was less stupor. He moved the left arm and leg freely, but could not be roused to protrude his tongue or give any marked sign of consciousness. The catheter was passed, and a dose of croton oil administered.

May 30.—Consciousness returning; opens his eyes momentarily when disturbed; ptosis of right eyelid; both eyes directed to the left; face drawn a little to that side; no move-

ment of right arm or leg; no reflex excitability. Swallows when fluid can be passed between the teeth, but attempts to push anything away that is put to his mouth, and clenches the teeth. Tries to get out of bed; head hot; bleeding continues from the right ear. Ordered twelve leeches to the head. Passed catheter. Ten grains of calomel given. In the evening he was much more conscious, but excitable and restless, trying to get out of bed, and requiring constant watching to restrain him. Ice to head.

31st.—At 5.40 a.m. I was called to him on account of the wild, restless night he had passed. Throws off the application to the head; has got out of bed once or twice; is angry at being restrained. Pulse 112, full, hard, and bounding. He was bled to 16 oz. from the right arm with manifest relief. The pulse came down to 94. At 11.20 a.m. he was much calmer, and had slept. The catheter had not been passed in the morning, and he now made signs for it to be done. The pupils were about normal, and acted under light. Refuses the beef-tea. An enema of beef-tea was given, and repeated at night.

June 1.—Volition and perception much better. Tries to protrude his tongue when asked. Watches the movements of those around. Takes his beef-tea readily. The ptosis has disappeared, but the eyes have a tendency to be directed to the left when the will is in abeyance. Begins to speak, but articulation is thick and indistinct. Tells them to "get away" if any restraint is placed on his movements. Has got out of bed and sat for a few minutes on a chair.

On the 2nd, 3rd, and 4th, he continued to improve, and the two latter days his friends became very sanguine of his recovery. Dr. Stacpoole and myself even began to entertain some hopes of the case. He recognised his friends, lifted and examined his paralysed arm, took freely of beef-tea, egg, etc., helped himself to strawberries, and signed for others to take some; asked questions of his friends. His speech, however, was never very intelligible, and he could not protrude the tongue. At this time he passed his urine voluntarily. Pulse 80-90.

4th.—In the evening he seemed not so well. At 10.50 p.m., the time of my late visit, he was more lethargic. His pulse was quicker, and had less power.

5th.—Was restless during the night, and is more somnolent this morning. If roused, soon lapses into a state of partial unconsciousness. His faculties seem more clouded. The mouth is becoming dry. Takes food when put to his mouth, but otherwise shows no desire for it. Pulse 116, soft and fluttering. Beef-tea enemata administered. On the 6th he was much worse, and evidently sinking. He was still conscious, however, and tried to speak, but articulation was too indistinct to be understood, although he repeated what he wished to say, and showed impatience that his efforts were unsuccessful. He commenced to pass his urine involuntarily, as well as his stools; the surface became cool and clammy. The leg and arm were restlessly moved. His consciousness became gradually more clouded; he ceased to notice those around, and died on the following morning, the 7th, at a quarter to six, being the ninth day after the injury. There was neither stertor nor convulsions.

Sectio Cadaveris, Twelve Hours after Death.—Weather very hot. Abdomen distended. Rigor mortis. On cutting through the scalp, considerable ecchymosis was seen between the layers of superficial fascia. On removing the calvarium, dark fluid blood and some coagula escaped from within the dura mater. When this membrane was raised, an extensive coagulum was found over the upper portion of the middle and posterior portion of the cerebrum on the right side, extending into the middle and posterior fossa at the base of the skull. One of the divisions of the middle meningeal appeared to be ruptured. Serous fluid was accumulated under the arachnoid, elevating it. The arachnoid was opaque along the course of the vessels, which were much engorged over both hemispheres. The pia mater was exceedingly vascular, and of a deep red colour. The cerebral substance at the upper and lateral part of the right hemisphere beneath the clot, to the size of a five-shilling piece, was softened and deeply stained. Both lateral ventricles contained bloody serum. On slicing off the "left" hemisphere level with the ventricle, a large clot was discovered, the nerve-substance around being broken up and stained with blood colouring. The clot was dark, diffluent, and easily washed away with the softened brain-substance around. It was more than an inch broad, lying in the substance of the hemisphere above the fissure of Sylvius (the island of Reil), external and posterior to the corpus striatum (the ventricular portion), and running inwards and backwards into the substance of the thalamus, where it impinged on the crus cerebri (left). The other portions of the brain appeared healthy. No fracture was discovered in the temporal bone or elsewhere, though the dura mater was dissected carefully away. The seventh pair were uninjured.

There are several points in connexion with the case that are noteworthy. How, in the first place, did the mischief arise? Was the injury in and upon the brain the direct result of the electric shock, or had the force of his being thrown to the ground produced the rupture of the vessels. There was a small graze on the right temple, but not that of a violent fall. There was no fracture. The recovery of consciousness and intelligence, viewed in conjunction with the remarkable amount of pressure that must have been exercised on the brain, as witnessed by the post-mortem condition, is very remarkable. The absence of stertor and convulsions throughout is likewise peculiar.

I fear I have extended my description so as to make a serious demand on your space. The case is one, however, of peculiar interest, and cannot well be curtailed without losing some points of special bearing.

I am, &c. GEO. R. BARNES, M.D.

Dorset House, Ewell, June 16.

GUTTA-PERCHA SUTURES.

LETTER FROM DR. R. EATON POWER.

To the Editor of the Medical Times and Gazette.]

SIR,—I enclose some specimens of gutta-percha suture, which I think presents certain advantages over that made of other materials—over metallic in being more pliable and affording a greater facility of application in parts difficult of access, as, for instance, in operations for cleft palate, etc.; over silk in not absorbing effete matter, and thus interfering with primary adhesion (in this respect it is of course inferior to silver or iron wire); over catgut in not swelling in the wound; over horsehair in retaining a firm knot, and in its capability of being made any required thickness.

I am aware that the use of gutta-percha for sutures is not novel, but the mode of its manipulation for that purpose which I am about to explain has not, that I am aware of, hitherto been adopted. I was first compelled by necessity to make a gutta-percha suture, in a case of wound of the eyelid occurring at sea in the tropics, where I avoided silk as likely to cause suppuration, and my suture wire had turned rusty and brittle.

The following is the very simple process of manufacture. Gutta-percha tissue is cut into strips across the grain, the breadth of the strip being regulated by the thickness of the strand required. These strips are then pulled out and twisted into strands, of which two or more can be spun into twine, as with other materials. In the "pulling out" consists the specialty of the process, thus rendering the gutta-percha both thin and tough. However, no amount of tenuity will suffice except it be also pulled, by which action the direction of the grain is altered from transverse to longitudinal, and when twisted is capable of bearing a moderate strain. As gutta-percha is easily influenced by temperature, it will be necessary to work it at that at which its ductility is greatest, which I have found to be about 84°, or the heat of a warm hand. I have used these sutures with good results in wounds of the scalp, etc., in different climates and under various conditions.

The specimens which I send are made by hand, and consequently present an unfinished appearance, which would not, of course, obtain in those manufactured by skilled workers with suitable machinery. I am, &c.

Portsmouth. R. EATON POWER.

UNIVERSITY OF CAMBRIDGE.—NATURAL SCIENCES.—The scholarship for proficiency in Natural Science at St. Peter's College has been adjudged to Mr. C. Fox, a student at University College. The examination was in botany, comparative anatomy, and chemistry.

POOR-LAW MEDICAL SERVICE.—Mr. R. Thomas Warn, 332, Kentish-town-road, has been appointed by the St. Pancras guardians Medical officer for No. 1 district. The Poplar Board of Guardians have determined to appoint an assistant to Dr. Sargant, at a salary of £120 a year, the chief officer to supply him with drugs. The Rev. F. J. Kitto has given notice of motion that Dr. Sargant be allowed £30 a year for drugs dispensed to the sick poor.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 6, 1868.

Dr. HALL DAVIS, President, in the Chair.

DR. W. B. LESLIE, of Dorchester, and Mr. J. Sutton Sams, of Lee, were elected Fellows of the Society.

Dr. GREENHALGH exhibited an

ELASTIC SPRING PESSARY,

which he had recently invented for the cure of retroversion of the uterus. In form it closely resembled a Hodge's pessary, and could be easily bent to any shape; it differed, however, from that contrivance in having a spring at its upper and a piece of india-rubber tubing at its lower extremity. Owing to its compressibility, it was easier of introduction and removal than a Hodge's pessary; it could be more perfectly adjusted; it occasioned little or no inconvenience in sexual intercourse, and was inexpensive. In two cases of subacute metritis with retroversion of the uterus, in one of which the ovary was inflamed and highly sensitive, this pessary gave great relief by placing the soft elastic tubing uppermost, when the hard extremity of a Hodge's pessary occasioned so much suffering that it had to be shortly withdrawn.

Dr. GRAILY HEWITT had used for a long time a modification of the Hodge's pessary in cases where the fundus was very sensitive. By thickening the upper part of the instrument to about the size of the little finger, its pressure was well borne.

The PRESIDENT thought very highly of Hodge's pessary, and, in its different gradations of size, he very frequently used it in descent of the uterus with or without retroflexion.

Dr. WYNN WILLIAMS exhibited a

MASS OF HYDATIDIFORM VESICLES,

attached to what appeared to be a portion of placenta or blighted ovum, together with hardened masses of blood.—Referred to a committee, consisting of Dr. Braxton Hicks and Dr. Wynn Williams, to report upon.

Dr. ROGERS exhibited two large fleshy masses which had formed one

POLYPOID TUMOUR OF THE UTERUS,

which he had removed by two operations at an interval of a few days. The patient had done well.

Dr. RASCH exhibited a

FŒTUS AND PLACENTA,

apparently of about five months, in which the umbilical cord was completely obliterated by twisting. Close to the navel of the fœtus, the funis had the appearance of firmly twisted thin cord of the thickness of a crow-quill.

Dr. RASCH also exhibited a

VAGINAL DRAINER

which he had contrived to prevent the wetting of the bed while injecting the vagina. The instrument is a peculiar adaptation of a common speculum, made of ebonite. To expose to the fluid injected as much of the vagina as possible, this speculum is considerably shorter, and bevelled off at the vaginal end, which also facilitates introduction. The brim is rather wider than in a common speculum, and covered in front by a sort of diaphragm, only leaving a hole for the introduction of the tube of the injecting apparatus. The brim is perforated below by a short pipe, to which an elastic tube can be fixed, through which the injected fluid flows out into any convenient receptacle. With the douche the author had introduced to the Society on a previous occasion, and this drainer, irrigation of the cervix and vagina, or uterus if desired, can be made for any length of time without interruption, and without trouble to the attendant or disturbance to the patient. By compressing the tube of the douche when once filled, and transferring the metal end from the vessel containing water to a vessel containing any medicated fluid, any desired quantity of the latter, however small, may be used as an injection. Both instruments are made by Mr. Jackson, 25, City-road.

Dr. WILTSHIRE, while complimenting the author on the ingenuity of his contrivance, suggested that it would be advisable to coat the metal end of the douche with vulcanite, to prevent the action upon it of the medicated solutions.

The PRESIDENT considered that Dr. Rasch's invention would prove of great advantage in many cases, and expressed his intention of making trial of it on the first suitable occasion.

Dr. EDIS exhibited for Dr. John Murray a

NEW CHLOROFORM INHALER.

It consists of a framework of strong wire which folds up, and of a removable cover made of several folds of fine cotton cloth, with an aperture for the admission of air. With a flat graduated bottle for the chloroform, it could be placed in a small case, which could be easily carried in the breast pocket. Dr. Murray had employed it in a large number of cases with much advantage, and could recommend it as light, cheap, clean, and portable.

Dr. H. M. MADGE related a

CASE OF RUPTURED UTERUS.

Mrs. M., aged 42, of good general health, but labours tedious. This was her tenth confinement. She was taken in labour the evening of December 21, 1867. At 11 o'clock the os uteri was the size of half a crown, the head high up, the liquor amnii dribbling away, the pains irregular and of varying strength. At 2 a.m., labour having made but little progress, and the quiet intervals becoming longer, tinct. opii ʒss. was given. Irregular pains continued up to 5 a.m., when the patient began to doze, and from that time they almost entirely ceased. There was no shock, collapse, or sickness. She slept a little, and in the morning was able to sit up in bed, conversing with friends, and taking her breakfast. On calling at 11 a.m., an unfavourable change was observed in her aspect and condition: there had been no return of pains, and symptoms of exhaustion were coming on without obvious cause. Thinking that internal hæmorrhage might possibly be going on, it was decided to use the long forceps. Egg and brandy were ordered, and an enema administered. On Dr. Madge's return, it was found that in his absence the patient had been able to walk into an adjoining room without assistance, that the bowels had been freely relieved, but that whilst sitting on the commode she had felt something give way in the abdomen, followed by a sharp pain in the hypogastric region. With assistance, however, she had walked back to her bed. She was now in a state of extreme exhaustion. Fearing that some lesion of the uterus had occurred, the assistance of Dr. Hall Davis was obtained, and on his arrival Dr. Davis, sharing in the same apprehension, speedily delivered by turning. She died about an hour after delivery. The child had apparently been dead for several days. The posterior wall of the uterus was found to have suffered laceration, the abdominal viscera being easily felt by the hand introduced *per vaginam*. A post-mortem examination could not be obtained. The injury was probably partially effected some hours before the birth of the child, and was made more complete by the straining efforts at stool.

Dr. BARNES called attention to the fact that this case afforded another illustration of the proposition he had on former occasions submitted to the Society—namely, that a dead child was an efficient cause of rupture of the uterus. Of course there were many other causes, but this one had been overlooked. He believed it was best, if the child was still in the uterus, and was felt presenting through a dilated os at the brim, to deliver by forceps or turning. Gastrotomy was especially indicated when the fœtus had escaped into the abdominal cavity. He repeated, from direct observation, that disease of the uterine tissue was not a necessary factor in the production of rupture.

Mr. SPENCER WELLS said that, as the results of turning or other mode of removing the child through the vagina in cases of ruptured uterus were so generally fatal, he hoped that Fellows of the Society would be prepared to try whether better results might not be obtained by a sort of Cæsarian section performed with every possible precaution, carefully cleansing the peritoneum from all blood, and closing the opening in the uterine wall by sutures.

The PRESIDENT was disposed to suspect in the case by Dr. Madge that a limited laceration of the uterus immediately preceded the first attack of collapse; that the rent was enlarged at a later period when the patient sat on the night chair, and thus the subsequent sinking of the vital powers might be explained. In answer to Mr. Spencer Wells's question whether the Cæsarian section might not have been useful, he had to reply that no good could possibly have resulted from it—that, while its performance would have aggravated the keen feelings of distress in the family, it was contra-indicated by the dying state of the patient. He believed that, had the post-mortem examination been permitted, degeneration

of the tissues would probably have been discovered at the seat of laceration. He agreed with Dr. Barnes that the death of the child some days before labour would cause a premature degeneration of the tissues of the uterus.

Dr. Snow Beck regretted a post-mortem examination had not been allowed, as, if the uteri in these fatal cases could be brought to the Society, it was probable that any change, and what change, in the uterine substance might be determined by the independent observation of different observers. This change might be fatty degeneration or want of due development from general weakness or repeated pregnancies, or from other causes. In either case the change from the healthy state existed, and was the chief cause of the giving way of the uterine tissue. He could not agree with Dr. Barnes that the presence of a dead child had much influence; it appeared to be only an accidental occurrence. One frequent cause of laceration was repeated straining to overcome some obstruction, but a dead child was more easily moulded and passed through an obstructed pelvis than a living one.

Dr. Greenhalgh agreed with Dr. Barnes that in most of the cases of ruptured uterus there was some disease of the uterine walls, and in two cases he had been able to confirm this by microscopic investigations. In no case had he seen this accident occur in a primipara, but in nearly all the cases he had witnessed the patients were fat and of lax fibre, and had had many labours at short intervals—conditions which he considered favourable to sub-involution or some form of degeneracy of the uterine tissues. He also agreed with Dr. Barnes that the death of the fœtus in utero was an occasional cause of such pathological changes.

Dr. Grailly Hewitt thought, amongst all the various causes of rupture assigned by previous speakers an important one had not been mentioned—viz., that excessive tenuity of the uterine walls at some situations which had been often observed. A sharply projecting sacral promontory would readily produce rupture if a thin part of the uterine wall became opposed to it. He believed that pelvic distortion was not an uncommon cause of ruptured uterus.

Dr. Rasch drew the attention of the Society to a paper published by Professor Klob, in which it was shown that perimetritis, like pericarditis, gave rise to a degeneration of the subjacent tissue. In several cases of spontaneous rupture of the uterus this was clearly shown to be the case; adhesions were present in evidence of a past perimetritis, and a rind-of-bacon-like thick layer of hard inelastic tissue, which consisted principally of connective-tissue fibres, to the almost complete exclusion of muscular fibres, the latter decreasing, and at last completely disappearing, as the external surface was approached.

Dr. Madge, in reply, said that, with reference to one of the points discussed, he thought that there was sufficient in the history of this case to prove that the rupture was due to a diseased or softened condition of the uterine structures. The irregular and inefficient pains in the early stages of the labour, continuing only a short time and disappearing after a moderate dose of opium, altogether the small amount of uterine action called into play, and the subsequent condition of the patient, showed that from the first there was something faulty in the state of the uterus. The indications, however, were not at the time sufficiently marked to warrant interference. Somewhat similar conditions are frequently met with in which labour pains, after remaining for a time in abeyance, become re-established, and the case does well. The case before the Society belonged to quite a different class from that in which a healthy uterus gives way after severe and fruitless efforts lasting over twelve or twenty hours. Where the indications are so plain—regular and continued uterine action and no progress—such accidents might be averted by timely interference. In the case related, the symptoms were very obscure, and tended to support the opinion of Dr. Radford and others that when ruptured uterus is caused by a thinning or softening of the uterine walls it is impossible, in the present state of our knowledge, either to be able to guard against the accident, or even at once to recognise it when it has occurred.

Dr. W. S. Playfair read a paper

ON THE ABSORPTION OF FIBROID TUMOURS OF THE UTERUS.

The author referred to the occasional disappearance of fibroid tumours, and gave a brief account of the literature of the subject, comprising an abstract of the principal cases of the kind which had been described by Sir C. Clarke, Rigby, Ashwell, and other writers. He then gave an account of two cases which had been under his own care, in one of which the tumour was the size of a large orange, in the other of an adult head, both the tumours eventually entirely disappearing. He then discussed the various theories which had been proposed to account for the occurrence by M'Clintock, Spencer Wells, and others; and, referring to the similarity in structure between fibroid tumours and the uterus itself, stated his belief that such disappearance was probably due to a process of fatty degeneration of the fibres, similar to that which preceded the diminution in size of the hypertrophied uterus after delivery.

Dr. Barnes said no doubt all would join in the hope that remedies would be found capable of causing the removal of fibroid tumours, but he could not see that Dr. Playfair's cases afforded any proof that such remedies had been found. He himself had used bromide and iodide of potassium till he and his patients were fairly tired out with the hopeless pursuit. He did not admit that the comparison drawn between fibroid growths and the healthy growth of the uterine muscle under the stimulus of gestation was complete or to the point. He did not find in fibroids those large fibre-cells which formed during gestation, and which were so readily melted down and absorbed afterwards. The fibroid was denser; it contained more fibrous tissue; it was very much cut off from the vascular system of the uterus—the fact that it was often so readily enucleated was proof of this. The question was very much one of diagnosis, and the diagnosis of fibroids was often difficult. The cases of Dr. Ashwell did not, at the time of publication, command the confidence of the Profession, and one of those related by Dr. Playfair seemed to be simply a case of pelvic inflammation. We ought not to be satisfied to accept a case as one of fibroid tumour, unless it was indicated by one of two tests—first, the passage of the uterine sound beyond the normal length; and, secondly, the mobility of the tumour and uterus *en masse* between the finger on the os uteri and the hand outside. The cases narrated were not established as fibroids by these tests. He had certainly seen fibroids diminish and disappear, and especially in several cases where, on account of hæmorrhage, he had repeatedly incised the cervix, but he had not seen medicines exert the smallest influence.

Mr. Spencer Wells concurred with Dr. Barnes in his doubts as to the power of medicines in causing absorption of fibroids; but he had no doubt as to the fact that very large fibroids did occasionally disappear. The process was not a very rapid one: it might go on for months or years, and it might not often be quite complete. But he had seen several instances where large tumours, of the nature of which no doubt could be entertained, had entirely disappeared. In one case the process seemed to be one of softening or suppuration, the patient not having much discharge, but suffering constitutionally from symptoms of chronic pyæmia. In other cases the process seemed to be a simple atrophy. In others there was more or less calcification. He thought the chloride of calcium hastened the latter of these processes, as it certainly checked hæmorrhage. Whether it did this by directly modifying the nutrition of the tissue or by leading to atheroma of the nutrient vessels was a question worthy of investigation; for a patient would find a fibroid a lesser evil than a general condition of arterial atheroma. He believed that if too much lime were given for too long a time this condition might be produced, and he had seen two cases where arcus senilis in young subjects, and other evidences of arterial degeneration, had followed long-continued treatment by chloride of calcium.

Dr. Grailly Hewitt remarked that as yet we had no trustworthy means of effecting the removal of fibroids by medication. He believed in their occasional but very rare disappearance. Of remedies, he had found a very prolonged use of bromide of potassium and blue pill in small doses act favourably. Pelvic cellulitis was not seldom mistaken for fibroid; hence a possible fallacy respecting the cure of cases.

Dr. Greenhalgh was also of opinion that medicines had but little effect in curing fibroids. He had, however, seen marked benefit from the long-continued use of small doses of perchloride of mercury, with quinine and belladonna, in lessening, and even arresting, the hæmorrhage usually attendant on this affection. That such cases occasionally underwent spontaneous cure he had no doubt: in more than one case he had witnessed such result. He narrated a case in which disintegration of a large fibroid, and its discharge by two openings—one in the cæcum and the other in the rectum—was progressing when the patient died, the fact being verified by a post-mortem examination. The diagnosis in some cases was by no means easy; thus, he had known a retro-uterine hæmatocele mistaken for a fibroid in the

posterior wall of the uterus. In another case, an interstitial fibroid deposit in the anterior wall of the uterus was assumed to have been absorbed by the remedies prescribed, when, much to the surprise of the Physician in attendance, a large polypus was expelled into the vagina. Dr. Greenhalgh concluded by detailing the particulars of a case of large fibroid of the posterior wall of the uterus impacted in the pelvis, which he had successfully enucleated by an opening made through the vagina into the growth by the actual cautery.

Dr. WYNN WILLIAMS said that the action of bromide of potassium resembled that of iodide of potassium, which, as pointed out by Paget, had the power of causing the absorption of lymph effused within and around these tumours, but not of the proper tissues of the tumours themselves; and in this way he had frequently seen these fibrous tumours of the uterus apparently lessened in size. It was, however, in appearance only, for the proper tissues of the tumours were not in the least degree diminished or absorbed. As regards the last case related by the author of the paper, he considered it to be a case of chronic pelvic abscess. The escape of the pus and the hardness left in the broad ligament could, he thought, leave no doubt as to its nature.

Dr. PLAYFAIR said that he did not believe that cases of the entire disappearance of fibroids were of frequent occurrence, but they did occasionally happen, and since writing his paper Dr. M'Clintock had referred to the subject in an article on fibroid tumours, and had brought forward several additional examples. With regard to the influence of remedies, he had distinctly stated that he did not believe they ever produced entire absorption of the tumour, and that they only acted in occasionally diminishing the size of the growths. He could not, of course, answer for the accuracy of the diagnosis in the cases he had quoted from other authors, although he considered it highly improbable that they had all mistaken some other condition for fibroid tumours, as had been suggested. With regard to his own case, which Dr. Barnes believed to have been one of pelvic cellulitis, he could confidently say that the symptoms were too distinct to make such a mistake possible; for, in the first place, the swelling was hard and nodular, while the swelling of pelvic cellulitis is smooth, and on bimanual examination it could be freely moved, which is not possible in cases of inflammatory swelling. Then the tumour projected so much into the uterine cavity as to prevent the introduction of the sound, which would have entered readily had it been a case of cellulitis. There was also the metrorrhagia, which had reduced the patient to a state of extreme anæmia, and which certainly was not a symptom of cellulitis.

NEW BOOKS, WITH SHORT CRITIQUES.

Therapeutics and Materia Medica. By Alfred Stillé, M.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, etc., etc. Third Edition. Two vols. Philadelphia: Lea. Pp. 824 and 864.

*** In no walk have our American brethren more distinguished themselves than in that relating to the means at our disposal for the cure of disease. Some of the best books issued from the American press have been on the subject of Materia Medica and therapeutics, and none of them are more worthy of general attention than that whose title heads this notice. The first edition appeared in 1860, and the work has for some time been out of print, so that its sale must be taken as some indication of the high estimation in which it is held in America. In this edition the substances chromic acid, permanganate of potass, the sulphites of soda, etc., carbolic acid, nitrous oxide, rhigolene, and Calabar bean, are considered for the first time. The article on bromine has been written anew, and that on electricity as a means of cure greatly enlarged. To English readers these volumes will be of value, as indicating the uses of certain drugs much used in America, but little known in this country. Take, for instance, the prunus virginiana, veratrum viride, etc. Many of these are of great value, and deserve more extended attention and employment.

Irritability: Popular and Practical Sketches of Common Morbid States and Conditions bordering on Disease. By James Morris, M.D. Lond., F.R.C.S.E., etc.

*** This little work is addressed to the public rather than to the Profession; still to Medical men it is not without a certain value, as serving to group together certain anomalous phenomena not very easily accounted for. That it is highly ingenious is just what we should expect from Dr. Morris.

The Preservation of Health; or, Plain Directions how to avoid the Doctor. By T. Inman, M.D. Lond., Physician to the Royal Infirmary, Liverpool, etc. London: H. K. Lewis. Pp. 155.

*** These light and pleasant sketches, which have for a time been the mainstay of one of our contemporaries, Dr. Inman has now published in a separate form. We doubt not they will be generally read, and we are convinced that they will do good. Medicine is no longer treated as a mystery. The aim of our Profession is to make its principles as widely known as possible, convinced that thereby they will reap greater advantage than by attempting to keep them secret; and we welcome anything which will tend to make more widely known the great facts which compose the basis of our science.

A Compendium of Practical Medicine and Morbid Anatomy. By William Dale, M.D. Lond., M.R.C.S.E. London: John Churchill and Sons. Pp. 475.

*** Why this book should ever have been put together we cannot conceive; still less can we understand why, its existence being resolved on, some pains should not have been taken to render it creditable to some one. As it now stands it appears to be a regular scissors-and-paste production. More than half of the contents stand within inverted commas. Nor would it be so unsatisfactory if authors were quoted with accuracy, but we have seldom seen a Medical work issued from the press with more bad spelling and more misquoted names. Even the title-page is deformed in this way, Hufeland appearing as Hugeland, and the same carelessness recurs again and again.

Pathologie Générale des Maladies de la Peau. Par le Dr. Alphée Cazenave, Ancien Médecin de l'Hôpital St. Louis, Lauréat de l'Institut, Chevalier de la Légion d'Honneur.

General Pathology of Skin Diseases. By Dr. A. Cazenave, formerly Physician to the Hospital St. Louis, Laureate of the Institute, etc. Paris: Paul Dalhis. Pp. 355.

*** As Cazenave himself remarks in his preface, there is something extraordinary in a man taking up his pen after an interval of forty years, and with nearly the same purpose as that with which he originally wrote—viz., to restore something like order to the study of skin diseases. It would further seem that the author had it in his mind to clear himself of accusations of intense conservatism which had been laid to his charge. The work is of that complete character so dear to many, comprehending the history, anatomy, pathology, pathogeny, etiology, diagnosis, prognosis, and therapeutics of skin diseases.

Thoughts of a Physician: being the Second Series of Evening Thoughts. London: J. Van Voorst. Pp. 176.

*** The writing of a calm contemplative Christian man.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 11th inst., viz.:—

Cornwall, James, Fairford, Gloucestershire, diploma of Membership dated July 8, 1842.
Dale, George Peckitte, Scarborough, March 31, 1843.
Master, Alfred, St. Giles' Plain, Norwich, April 6, 1838.
Rugg, Richard, Middle street, Brighton, May 10, 1833.
White, John Pagan, Moss-street, Liverpool, May 3, 1837.

The above is the last meeting of the Council for the admission of Fellows previous to the annual election on the 2nd proximo.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 11, 1868:—

Drinkwater, William, Shepherd's-bush, W.
Monckton, Marshall, St. Austell, Cornwall.

The following gentleman also, on the same day, passed his First Examination:—

Lawrence, Charles Hinds, University College Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CAMPBELL, D., L.R.C.P. and L.R.C.S. Edin.—Medical Attendant to the Inverness Infirmary.

MILITARY APPOINTMENTS.

56th Foot.—Staff Assistant-Surgeon Edmund Maurice Downing Fitzgerald, M.D., to be Assistant-Surgeon, *vice* Patrick Walter Stafford, who exchanges; June 13.

60th Foot.—Staff Surgeon William Macnamara, M.D., to be Surgeon, *vice* John Phillips Cunningham, M.D., appointed to the 20th Hussars; June 13.

20th Hussars.—Surgeon John Phillips Cunningham, M.D., from the 60th Foot, to be Surgeon, *vice* David Field Rennie, M.D., deceased; June 13.

Medical Department.—Assistant-Surgeon Patrick Walter Stafford, from the 56th Foot, to be Staff Assistant Surgeon, *vice* Edmund Maurice Downing Fitzgerald, M.D., who exchanges; June 13.

BIRTHS.

CARRE.—On June 12, at 131, Camberwell road, the wife of Dr. Lewis Carre, of a son.

MORRIS.—On June 13, at Offa Villa, Bedford, the wife of Pryce Morris, M.R.C.S. Eng., of a daughter.

REID.—On June 12, at Crosshaven, county Cork, the wife of Dr. Reid, Staff Surgeon, R.N., of a daughter.

WAY.—On June 9, at St. George's-square, Portsea, the wife of Frederick Walter Way, M.R.C.S. and L.S.A., of a son.

MARRIAGES.

CATER—JAMIESON.—On June 8, at Highfield Church, near Southampton, Samuel Kyle Cater, Esq., M.B., to Alice, second daughter of Captain Thomas Jamieson, The Firs, Portswood, Southampton. No cards.

FORSYTH—SPRING.—On June 11, at Woodford Church, Essex, Alexander Forsyth, M.D., of Greenwich, to Katherine, second daughter of the late Henry Spring, Esq., of Hoxton square. No cards.

GREEN—CLARKE.—On June 9, at St. Pancras Church, George Robert Green, Esq., son of the late Dr. Harry Green, to Isabella, second daughter of Joseph Clarke, M.D., of 48, Guildford-street, Russell-square. No cards.

GWYTHER—CALLENDER.—On May 28, at Union Chapel, Manchester James Gwyther, M.B., younger son of the Rev. James Gwyther, to Lucy Victoria, only surviving daughter of W. R. Callender, Esq., of Didsbury.

HEY—PRATT.—On June 10, at the church of St. Stephen, Coleman-street, London, Samuel Hey, Senior Surgeon of the General Infirmary, at Leeds, to Sarah Jane, eldest daughter of the Rev. Josiah Pratt, vicar of St. Stephen's.

ROSE—CATON.—On June 11, at St. Mary's Church, Lancaster, Hugh Rose, jun., Esq., merchant, Edinburgh, to Annie, only daughter of the late Richard Caton, M.D., of Bradford, Yorkshire. No cards.

DEATHS.

CHOWNE, CHARLES EDMUND, Esq., M.R.C.S., at Ealing, on June 13, aged 64.

HUNT, THOMAS, Esq., M.R.C.S., second son of Thomas Hunt, Esq., F.R.C.S., at Scone, Upper Hunter, New South Wales, on April 10, in his 31st year.

SPURGIN, JOHN, son of the late John Spurgin, Esq., M.D., of 17, Great Cumberland Street, Hyde park, on June 10, at Lewisham, in his 24th year.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATIONS.

Ampthill Union.—Mr. Robert C. Embleton has resigned the Embleton District; area 18,658; population 2951; salary £25 per annum.

Newcastle Union.—Mr. Richard Purdon has resigned the Workhouse, salary £50 per annum.

St. Pancras Parish.—Mr. W. H. Platt, Medical Officer for Males in the Workhouse, has resigned. Salary £100 per annum.

APPOINTMENTS.

Easington Union.—Allan Wilson, M.D.Glas., L.F.P. and S.Glas., L.S.A., to the Wingate District.

Exeter Incorporation.—John S. W. Elye, M.R.C.S.E., L.S.A., to the Western District.

Torrington Union.—George G. A. Sutcliffe, L.R.C.P.Edin., M.R.C.S.E., to the Shebbear District.

West Ward Union.—John M. Fothergill, M.D.Edin., L.R.C.P.Edin., M.R.C.S.Edin., to the Morland District.

Wetherby Union.—Richard L. Elliott, L.R.C.P., M.R.C.S.E., to the Fourth District.

THE Queen has subscribed an annual £100 to the Hampshire County Hospital at Winchester, and accorded to it the prefix of "Royal."

LORD OVERSTONE has accepted the office of President of the Charing-cross Hospital, which became vacant by the death of the late Marquis of Salisbury.

A NITRO GLYCERINE explosion has occurred at Stockholm. Fifteen persons were killed.

THE Château Lafite is offered for sale at an upset price of £1,800,000.

ARTS EXAMINATION AT THE COLLEGE OF SURGEONS.—During the present week 248 candidates for the Fellowship and Membership of the Royal College of Surgeons have been undergoing their preliminary examinations in Arts etc., under the supervision of a staff from the College of Preceptors. This number is greatly in excess of that of last year, when only about 140 presented themselves. On the present occasion there were 39 for the Fellowship and 209 for the Membership, making an excess of 108 over the corresponding period of last year. It may not be generally known to those candidates who go up for the Arts Examination for the former distinction that, failing in passing, they may yet obtain a sufficient number of marks for that of the Membership.

COLLEGIATE ELECTION.—We publish below the names of the eligible Fellows who are candidates for seats in the Council of the Royal College of Surgeons of England at the annual election, on Thursday, July 2, at two o'clock, together with the names of the gentlemen nominating the candidates, one of whom, Mr. Erichsen, it will be seen, is disqualified for voting, having signed the recommendatory paper for more candidates than there are vacancies in the Council. According to seniority there are—1. Mr. Richard Partridge, New-street, Spring-gardens, and 2. Sir Wm. Fergusson, Bart., George-street, Hanover-square, retiring from the Council in rotation. 3. William James Erasmus Wilson, Henrietta-street, nominated by John Wiblin, Southampton; H. D. Carden, Worcester; J. E. Erichsen, Cavendish-place; Sir Henry Thompson, Wimpole-street; Henry Smith, Wimpole-street; Thomas Carr Jackson, Weymouth-street. 4. John Gay, Finsbury-place South, nominated by Barnard W. Holt, Savile-row; H. Haynes Walton, Brook-street; William Adams, Henrietta-street; Henry Smith, Wimpole-street; Joseph Jordan, Manchester; William S. Savory, Brook-street. 5. George Lewis Cooper, Woburn-place, nominated by P. C. De la Garde, Exeter; John E. Erichsen, Cavendish-place; Sir Henry Thompson, Wimpole-street; John Marshall, Savile-row; John Wiblin, Southampton; Holmes Coote, Princes-street, Hanover-square. 6. Charles Brooke, Fitzroy-square, nominated by Barnard W. Holt, Savile-row; Luther Holden, Gower-street; John E. Erichsen, Cavendish-place; Henry Power, Seymour-street; Charles H. Moore, Piccadilly; William Harvey, Soho-square. 7. John Simon, Kensington-square, nominated by William Bowman, Clifford-street; John E. Erichsen, Cavendish-place; Henry Lee, Savile-row; Sir Henry Thompson, Wimpole-street; T. Spencer Wells, Upper Grosvenor-street; John Wiblin, Southampton. 8. George Murray Humphry, Cambridge, nominated by William S. Savory, Brook-street; George D. Pollock Grosvenor-street; William Bowman, Clifford-street; Henry Smith, Wimpole-street; J. W. Hulke, Old Burlington-street; Timothy Holmes, Clarges-street. 9. Luther Holden, Gower-street, nominated by John Wiblin, Southampton; John E. Erichsen, Cavendish-place; Charles Brooke, Fitzroy-square; William S. Savory, Brook-street; Arthur E. Durham, Brook-street; George W. Callender, Queen Ann-street. It will be seen that, with the exception of Professor Humphry, all the candidates are metropolitan, and only one, Mr. Holden, is a Fellow by Examination.

MEDICAL CHARITIES.—The late Thomas Bridges, Esq., of Elmer, near Fetcham, Surrey, has bequeathed legacies of £1000 each to the Cancer Hospital, Fulham, the Idiots' Asylum, Redhill, and the Sussex County Hospital, Brighton, all free of legacy duty. Charles Grey Round, Esq., late M.P. for North Essex, has bequeathed £250 to the Essex and Colchester Hospital. The Rev. William Crawford, of Suffolk, has directed legacies (free of duty) of £1000 each to be paid to the West Suffolk Hospital, the Suffolk Lunatic Asylum, the East Suffolk Hospital, and the Asylum for Idiots. Miss Louisa Hall bequeaths £500 to the Convalescent Hospital. James Ingham, Esq., of New Mills, Glossop, has bequeathed £300 to the Manchester Royal Infirmary and £200 to the Stockport Infirmary. The Grocers' Company has just given a fourth donation of £100 to the Metropolitan Free Hospital.

A NEW PANACEA.—Among the remains of the Christian martyrs exhumed from the catacombs at Rome, and exposed in the churches for the veneration of the faithful, were some which, during their transport, fell into dust. They were, however, not lost, but, being true relics, their dust has by the addition of wax been worked up into a paste, *pasta di martiri*, having the virtue of curing all diseases. (We suppose that, in the face of so formidable a rival, Professor Holloway will cease advertising in the *Gazetta Medica di Torino.*)

TRADE UNIONISM AMONG DOCTORS.—The *Star* refers to the fact that certain members of the Profession in Southampton have formed a committee for the purpose of carrying out certain resolutions relative to the fees for attendance on sick clubs and benefit societies. It does not directly disapprove of the movement, but it associates it with Mr. Broadhead's late notorious proceedings, and expresses its belief that the Doctors "are not altogether without resource against the *knobsticks* of their order." This is not quite fair on the part of our contemporary, whose opinions are generally so completely radical. Without expressing any opinion as to the views which are now gaining ground among our brethren in the provinces, we must say that the *Star* should either have avoided the subject altogether, or have made itself more conversant with the state of the case than it seems to have done.

A DEAD MAN NOT "AT HOME."—The fact of the occurrence of deaths is not registered in France upon the mere affirmation of a witness, as with ourselves, but only after the inspection of a district Medical officer known as the "verificator of deaths." One of these gentlemen lately called for this purpose at a certain house in Lyons, and was rather taken aback, on requesting to see the deceased, by the answer, "The deceased!—oh! he has not come home yet." It was no new thing for him to find patients not keeping their appointments, but this was the first instance of a body not being punctual. However, it turned out that, the deceased having died in a scuffle,

an official autopsy had to be made, and he had not been brought back from the theatre.—*Gazette Médicale de Lyon*, No. 22.

SMALL-POX IN BERLIN IN 1867.—There occurred 782 cases (375 males, 407 females), 98 proving fatal. Of these 782 cases, 50 occurred between the 1st and 2nd year, 83 between 2 and 5, 65 between 5 and 10, 69 between 10 and 20, 166 between 20 and 30, 147 between 30 and 40, 74 from 40 to 50, 39 from 50 to 60, 21 from 60 to 70, and 1 after 70. Of the fatal cases, 29 took place during the 1st year, 14 in the 2nd, 12 between 2 and 5, 3 between 5 and 10, 1 between 10 and 20, 6 between 20 and 30, 12 between 30 and 40, 9 between 40 and 50, 8 between 50 and 60, and 4 between 60 and 70. Of the 782 cases, 611 had been vaccinated, 171 not vaccinated; and of the 98 fatal cases, 47 had been and 51 had not been vaccinated. Of the fatal cases which had been vaccinated, 8 of the deaths occurred under 10 years of age, and the remainder in adults. The non-vaccinated were, with one exception, children under 10 years of age, and 27 of them in their first year.—*Berliner klin. Woch.*, No. 19.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

J. G. W.—Send an official application, and if not complied with, write to the Registrar-General.

The Carmichael Prizes.—The letter of our correspondent "O." represents the general feeling prevalent in London before we took the trouble to investigate the matter and to vindicate the Dublin College of Surgeons from the imputations to which they seemed liable.

Ephraim Jenkins.—The advertisement in the *Times* does not offer £1000 for a cosmogony, but asks people to raise £1000 to offer for a treatise on the cosmogony, to be awarded after the next eclipse. The infallible words of your predecessor may be applied to this scheme—"Anarchaion kai ateleutaion to pan."

Bibliopole, Kentish-town, complains, and we think with some cause, of being turned out of the library of the College of Surgeons during the recent daily examinations in Arts, etc. We have reason to believe that these examinations in future will be conducted elsewhere, and with greater convenience to all concerned. The result of the examination in Arts will not be known for some weeks.

A Provincial Fellow.—The annual festival of the Fellows of the College of Surgeons will take place at the Albion Tavern on the evening of the election, under the presidency of Mr. Partridge. The rule on these occasions is to have a metropolitan and provincial Fellow in turn to fill the chair. The hon. secretary is Mr E. C. Hulme, of Gower-street, to whom you had better address yourself for the required information.

A Metropolitan Fellow.—We are informed that notices of the annual election have been sent to every Fellow in the United Kingdom whose address appears in the Calendar of the College. If you have not received a notice, you should communicate with the Secretary.

Mr. W.—The list of candidates for seats in the Council, together with the names of the gentlemen nominating them, have been published in the *London Gazette* and some of the daily papers. If, as a Fellow, you have not received the usual notice, write to the Secretary.

A Student.—On reference to our advertising columns you will find the required information, and by a petition to the President, with a letter from the Dean of your school, you will no doubt be allowed to make good your registration; but write at once.

PHOSPHORUS IN SKIN DISEASES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to Dr. Broadbent's inquiry in this day's *Medical Times and Gazette*, respecting the use of phosphorus in skin diseases by Dr Burgess, allow me to say that the experience of Dr. T. H. Burgess will be found at page 289 of the twenty first volume (1850) of Braithwaite's "Retrospect of Medicine."

Dr. Burgess uses the medicine externally and internally, and speaks of it "as one of the most valuable medicinal agents we possess in those inveterate skin diseases, leprosy, psoriasis, and lupus."

I read Dr. Broadbent's paper with much interest, and my remark as to "no new invention" was hardly meant to apply more to Dr. Broadbent than it did to myself.

I am, &c. JOHN C. THOROWGOOD, M.D. Lond.

Welbeck-street, W., June 12.

FORCEPS, FORCIPES; FENESTRA, FENESTRÆ.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Some little time ago there appeared in your journal a discussion as to whether "Cæsarian" or "Cæsarean" was the proper spelling. I incline to think the weight of evidence is in favour of the first spelling, but admit that there is ground for difference of opinion. But there is none as to the word "forceps" being a singular noun. Yet it is quite common to see this word used in the plural number governing plural verbs. To mention two prominent examples:—First, a lecture on the forceps lately published in the *Lancet*, and the catalogue of the exhibition of instruments of the Obstetrical Society. The confusion arises probably from the word ending with an *s*, and from the instrument having two blades. But these circumstances cannot affect the etymology. It is singular in the Latin, and is always used as a singular noun by Continental writers and the more accurate authors amongst ourselves.

The catalogue referred to is also disfigured by another offence against grammar. "Fenestrum" is used in the singular and "fenestræ" in the plural. Of course it is hopeless to try to account for such a muddle as this. Flaws of this kind, which are rarely or never seen in foreign literature, are apt to give an unfavourable impression abroad of the education of English Medical Practitioners. I am, &c. FORCEPS.

. Our correspondent's remarks might have been extended further—to such a word as "labiæ," for example, instead of "labia," the plural of labium. Such instances give but little foundation for the popular complaint that boys spend all their time in learning Greek and Latin.

THE THROAT HOSPITAL, GOLDEN SQUARE

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The statistics of the Throat Hospital in Golden-square presented, I must presume by authority, in the *Times* of this morning to the public, give some results which, I think, should undergo the calm and deliberate judgment of not only the Medical Profession, but of those generous and kind patrons who lent their high names as presidents, stewards, etc., of the dinner yesterday, and contributed the munificent sum of £950 on the spot towards the maintenance of the charity. According to these statistics, the Hospital held in its beds during the year 1866, 2550 patients. The average period of residence for in-patients in seventeen of our largest and best endowed Hospitals is between five and six weeks. In the Throat Hospital, situated at the corner of Golden-square and John-street, and having space for, at the very outside, twenty beds, the average duration is less than *three days* for each patient. Again, the average mortality in those great Hospitals is about 7 per cent.; that of this Hospital is not given in the *Times*, but being well acquainted with the various epidemics and diseases of the district lying about the Throat Hospital, I am prepared to assert that the one-seventh of that average has not occurred within its walls, and I shall go further, and say that, until reliable proof is given to the contrary, it is my belief that the deaths very little, if at all, exceed one in a thousand, and a reference to the district registrar can settle that question.

Again, the number of externs relieved in 1866 is set down at 20,000. Now, though statements of this kind are made up perhaps in all Hospitals without any great attention to accuracy, and should be received with indulgence, yet it is quite impossible to believe that anything like that number has been relieved at this Hospital. Considering that throat diseases of the common kind are strictly winter maladies; that croup and diphtheria are, as a rule, of very rare occurrence; that no epidemics of these diseases have appeared in its neighbourhood since it opened; that, taking the above item of 20,000 as true, then it would occupy the Surgeon of this Hospital fifteen hours a day at least for six days in the week for the six winter months to examine and prescribe for them and the interns, and that to do them reasonable justice would require a staff equal in numbers to St. Bartholomew's or Guy's. Such a statement is simply incredible. Further criticism of these statistics is hardly necessary, even did not a regard for your space forbid.

Considerations relating to the difficulty of filling even twenty beds throughout the year with cases of real laryngeal disease, allowing the full area of *clientèle* of 200,000 persons attached to our large Hospitals, must strike every Professional reader. But surrounded as this is on the north, south, east, and west by the Middlesex, Westminster Charing cross, and St. George's, the furthest within twenty minutes' walk, all of which have long since adopted this aid to the investigation of throat diseases, raise doubts so grave of the honesty of collecting subscriptions from the charitable for its maintenance, that nothing but a full and authenticated statement by known and reliable persons should satisfy its noble and Professional patrons that they are lending their great names to a legitimate institution got up for the benefit of the poor. I am, &c.

MEDICUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to the letter of "Medicus," I must beg to state, in the first place, that I consider this institution no more responsible for anything that the press may say of it than I should hold "Medicus" accountable for anything the press might write of the Medical Profession.

No one connected with this Hospital being in the smallest degree answerable for any report that may appear in the *Times* or any other newspaper, the "presumption" that certain statistics contained in the short summary of our festival proceedings were published "by authority" is absolutely groundless, and I might not unreasonably object to discuss any statements therein contained. I am, however, quite ready to place all the facts before you, and to show how "Medicus," in criticising a newspaper paragraph, has not himself taken the trouble to quote correctly. His letter has reference to three matters—

1st. The number of in-patients, and their duration and mortality in the Hospital.

2nd. The number of out-patients.

3rd. The difficulty of filling twenty beds with cases of real laryngeal disease.

1st. Your correspondent has given some elaborate statistics showing that the average duration of each patient in the Hospital is three days, and that the mortality does not exceed one in a thousand cases. I am sure that the Governors of the Hospital would be delighted if these conclusions were correct, as they would testify in the highest degree to the successful treatment adopted; unfortunately, however, they are founded on the erroneous assumption that the 2550 patients treated last year were all in-patients, whereas only 81 of these cases were received into the Hospital. The statement in the *Times* is that 2532 cases were treated in the Hospital during the past year. It would doubtless have been more correct to say at the Hospital. The expression that the Hospital held in its beds 2550 patients, though put forward by "Medicus" as a quotation from the *Times*, I have not been able to discover anywhere, except in his own letter.

2nd. As regards the out-patients, the *Times* report says, "20,000 visits were made by patients." The quotation of "Medicus" in reference to this statement is, "The number of externs relieved in 1866 is set down at 20,000." I leave your readers to judge of the difference between these two statements, and do not think it necessary to follow "Medicus" in his calculations as regards the time occupied in seeing the patients, or the Medical staff required for that purpose.

3. As regards "the difficulty of filling even twenty beds with cases of real laryngeal disease." This question may be considered either from an *à priori* point of view, or from the standpoint of facts. As "Medicus" prefers regarding the subject as a matter of reasoning, I will give priority to this mode of consideration.

"Medicus" starts with the hypothesis that "200,000 persons is the full area of *clientèle* of this Hospital." This I cannot for a moment admit, as our *client'e* (if from the term "Medicus" me ns the source from which we draw patients) extends through the length and breadth of the land. Our register of patients shows that last year we had upwards of 500 patients from beyond the postal district. Many of these came long distances—from Yorkshire, Lancashire, Devonshire, etc., etc. The possible *clientèle* which "Medicus" has assigned would, therefore, have to be multiplied a hundredfold As a matter of fact, I may say that the governors of this Hospital are not actuated by any feelings of antagonism to the excellent general Hospitals referred to by "Medicus." There is at the present moment at least one patient "held in a bed" at this Hospital who was sent to us from one of those very Hospitals.

In conclusion I have only to assure "Medicus" that "the noble and Professional patrons" of this Hospital do not derive their information concerning it from newspaper paragraphs, but from personal observation of its working, and from "full and authenticated st atements by known and reliable persons."

I have the honour to enclose you one of the brief reports of the insti tution, which were placed in the hands of our guests (including the representatives of the press) on the evening of our festival, and from it you will see that this charity is not in the slightest degree responsible for any incorrect statements of newspaper reporters.

Had "Medicus" wished to obtain information concerning the Hospital, instead of seeking to injure it by misquoting loose statements from the general press, I should have been delighted to have afforded him any assistance in my power. The Hospital was last year visited by upwards of 100 Medical Practitioners for the purpose of obtaining clinical instruction; and I may add that it is open every Thursday at two o'clock to any person entitled to use the signature which "Medicus" has employed.

June 15. I am, &c GEORGE WOOD, Secretary.

P.S.—To prove to you how thoroughly "Medicus" has misquoted the report of the anniversary festival of this Hospital, I beg to forwar d you the extract:—

HOSPITAL FOR DISEASES OF THE THROAT.—In order to facilitate the employment of the newly-invented laryngoscope among the sick poor, the Dispensary for Diseases of the Throat was established in 1863 in King-street, Regent-street, and its great utility soon became so evident that increased subscriptions flowed in, until the Committee were enabled to take larger premises, and to make provision for a certain number of in-patients. The Dispensary consequently grew into a Hospital, and was removed to Golden-square. The necessity for an institution of this kind is amply shown by the returns of the Registrar-General, from which it appears that in 1866 no fewer than 24,000 deaths occurred from croup, diphtheria, and other throat diseases. Now, when it is considered that these figures include fatal cases only, some idea may be formed of the amount of the suffering among the destitute poor from this class of diseases. During the past year 2532 cases were treated in the Hospital, while upwards of 20,000 visits were made by patients, who, on each occasion, received advice and medicine. The sixth annual dinner in support of the institution was held last evening, at the Freemasons' Tavern. The Duke of Grafton, President of the Hospital, took the chair, and after the customary loyal and constitutional toasts having been duly honoured, made an appeal on behalf of the institution, resulting in a subscription-list amounting to £950.

COMMUNICATIONS have been received from—

Dr. SHERIDAN MUSPRATT; Dr. J. C. THOROWGOOD; Dr. DICKSON; Dr. W. H. GRIFFITHS; Mr. GEORGE WOOD; Dr. JOHN WHITMORE; Dr. EDWIN LEE; Dr. MORELL MACKENZIE; Dr. GERVIS; Dr. HENRY OSBORN; Dr. R. H. S. CARPENTER; Mr. J. WILLCOCKS; Dr. WILKS; Mr. LAWSON TAIT; Mr. ALEXANDER BRUCE; Dr. G. R. BARNES; Mr. HENRY ARNOTT; Mr. A. MCCULLOCH; Dr. ROBERT BARNES; Mr. J. CHATTO; Dr. HUGHLINGS JACKSON; Mr. CLARK; Mr. T. M. STONE; Mr. SPENCER WELLS; Dr. CLAPTON; Dr. CLIFFORD ALLBUTT; Dr. YEO; Dr. EDWARDS CRISP; J. G. W.; J. D.; Messrs. HOLMES and Co.; Mr. E. BREMRIDGE; Dr. R. BEVERIDGE; Dr. T. E. ALLBUTT.

BOOKS RECEIVED—

American Journal of Obstetrics, No. 1—New York Medical Journal, No. 38—Birch on Oxygen—Hillier's Diseases of Children—Bishop of Lichfield's Address to the In-patients of Devonshire Hospital, Buxton—Sir J. Simpson on the Great Pyramid of Gizeh—Barwell on Lateral Curvature—Pacific Medical and Surgical Journal, No 12—Canadian Pharmaceutical Journal, No. 1.

NEWSPAPERS RECEIVED—

Western Gazette and Flying Post—Saunders's News Letter.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 13, 1868.

BIRTHS.

Births of Boys, 1175; Girls, 1098; Total, 2273.
Average of 10 corresponding weeks, 1858-67, 1852·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	645	550	1195
Average of the ten years 1858-67	619·7	533·0	1152·7
Average corrected to increased population..	..	..	1268
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Popula-tion, 1861.	Small pox.	Mea-sles.	Scar-latina.	Diph-theria	Whoop-ing-cough.	Ty-phus.	Diar-rhœa	Cho-lera.
West ..	463,388	2	7	3	..	6	7	5	2
North ..	618,210	2	11	5	2	19	10	8	..
Central	378,058	..	8	1	..	9	3	7	..
East ..	571,158	1	20	2	2	12	8	4	1
South ..	773,175	5	14	11	4	24	12	7	..
Total ..	2,803,989	10	60	22	8	70	40	31	3

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·034 in.
Mean temperature	60·3
Highest point of thermometer	85·1
Lowest point of thermometer	45·3
Mean dew-point temperature	47·3
General direction of wind	N.N.W. & W.S.W.
Whole amount of rain in the week	0·00

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 13, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending June 13.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the week ending June 13.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3126635	40·1	2273	1411	1195	85·1	45·3	60·3	0·00	0
Bristol (City) .	167487	35·7	154	75	*60	..	..	..	..	..
Birmingham (Boro')	352206	45·0	259	171	135	79·4	41·5	56·2	0·00	0
Liverpool (Borough)	506676	98·0	399	290	237	71·0	48·4	55·5	0·00	0
Manchester (City) .	366885	81·8	333	208	*190	..	..	..	..	..
Salford (Borough) .	117162	22·7	119	59	57	74·5	43·2	53·1	0·54	54
Sheffield (Borough).	282362	10·2	214	122	133	79·4	43·0	55·5	0·00	0
Bradford (Borough)	108919	16·4	117	55	43	..	..	..	..	..
Leeds (Borough) .	236746	11·0	205	120	99	80·0	42·0	56·4	0·00	0
Hull (Borough) .	108269	30·4	69	50	51	..	..	..	..	..
Newcstl-on-Tyne, do.	127701	23·9	132	68	51	74·0	42·0	54·8	0·00	0
Edinburgh (City) .	177039	40·0	145	85	88	64·7	44·3	54·7	0·00	0
Glasgow (City) .	449868	88·9	399	262	249	64·4	43·2	54·0	0·02	2
Dublin (City and some suburbs) .	319985	32·8	212	157	121	76·7	37·3	55·7	0·13	3
Total of 14 large Towns . . .	6391080	34·7	5092	3163	2709	85·1	37·3	55·6	0·06	6
					Week ending June 6.	Week ending June 6.				
Vienna (City) .	(1863) 560000	..	..	..	361	..	..	71·4†	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·034 in. The barometrical reading increased from 29·98 in. on Wednesday, June 10, to 30·11 in. on Friday, June 12.

The general direction of the wind was N.N.W. and W.S.W.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that the estimate may in some instances be erroneous.

* The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 58·3.

APPOINTMENTS FOR THE WEEK.

June 20. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing cross, 1 p.m.

ROYAL INSTITUTION, 3 p.m. Sir J. Lubbock, Bart., "On Savages."

22. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

23. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 9 a.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Dr. Schetelig, "On the Characteristics in the Dialects and Formation of Skulls of the Natives of Formosa." Dr. Shortt, "On the Natives of certain Districts of India."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. G. Harley, "Case of Acute Progressive Paralysis." Mr. Hinton, "On Perforation of the Mastoid Cells." And other Papers by Drs. Elliot, E. Ballard, Z. J. Johnson, Reg. Thompson, and Dickinson, and Mr. Lockhart Clarke.

24. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE, 4 p.m. Annual General Meeting.

25. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

26. *Friday*.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON
DISEASES OF THE NERVOUS SYSTEM.

By SAMUEL WILKS, M.D.,
Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.

Inflammation of the Brain, including Softening and Meningitis.

(*Continued from page 628.*)

In speaking of the symptoms of softening, if you take the case of acute general cerebritis, they may be of the most obscure character. There would, of course, be severe pyrexia with a delirium, dulness of intellect, and final coma, but perhaps no other symptoms especially referable to the brain. I believe cases of simple general acute cerebritis are very uncommon. In those which I have seen, the nature of the disease was by no means evident during life. A young man was admitted in a condition like that of fever, it being said that this torpid state had gradually come upon him. He lay perfectly motionless in bed, and never spoke, although his eyes were open, and he appeared to understand; he did not live long. After death the brain was found softened throughout; the whole was pulpy, and some parts were actually semifluid. I have seen one or two similar instances. In cases of less rapid progress, the cerebral symptoms would be more marked, whilst the pyrexia would be less, and there might be headache, sickness, a slow labouring pulse, constipation, delirium, and gradually approaching coma. In two cases I have seen lately, the patient lay in a listless state, answering when spoken to, and then falling into sleep. So wanting in character are the symptoms, that the most fatal of disorders has been regarded as a simple functional disturbance; and I have seen the case of a lady in which the symptoms were ascribed to hysteria. Just as particular parts of the brain may be involved, so would special paralytic symptoms be present; if any portion of the motor tract, a hemiplegia; if the base of the brain, paralysis of the cranial nerves. If the softening should be confined to one spot, then the symptoms would be proportionally limited, just as I told you in the case of sanguineous effusion. If to the corpus striatum or thalamus, a simple hemiplegia. If to the medullary substance, symptoms of the most indefinite character. If involving the cineritious substance, more remarkable symptoms denoting mental disorder.

I need not detail you cases of inflammation with softening and its other effects. One of the simplest cases is that resulting from a ligature of the carotid, examples of which I have now seen on one or two occasions where, from the simple deficient supply of blood, the brain has atrophied. Another common case is that where the cerebral vessels are plugged by vegetations washed off the valves of the heart, and a softening has resulted. Then there are the various cases of abscess from injury or disease of the petrous bone. A softening process may go on around an apoplectic clot, and it may occur in connexion with syphilitic processes in the cerebral structures. The case where the whole brain is inflamed, causing a rapidly fatal disease, I have already alluded to; but there are also other varieties which time will not allow me to mention—cases of longer duration, but equally obscure as to their pathology. I have, for instance, seen cases like the two following:—A man, aged 40, was admitted into the Hospital with a history of headache, loss of memory, difficulty of speaking, etc., of nine months' duration. A general torpidity came over him until he became quite unconscious and generally paralysed. A conjectural diagnosis was made. The inspection showed that an inflammation had attacked not only the brain, but the membranes and skull itself. The whole internal surface of the latter was covered with bony granulations, with a roughening of the corresponding surface of dura mater. Arachnoid surfaces adherent in places; substance of brain soft, with an inflammatory cyst in anterior lobe.

A young man, aged 21, had a very similar disease, where the whole of surface of skull was scabrous and adherent to dura mater. Brain affected throughout, and cyst in cerebellum. He was in bed for months with blindness, deafness, and a general weakness of the limbs. This probably arose from injury.

I have already said that in meningitis the most characteristic symptoms are due to the implication of the brain proper, and thus, although an inflammation of the membranes appears to us the most frequent and striking form of inflammation of the brain, yet in reality it is the cerebritis accompanying it which causes the symptoms—in fact, every case of meningitis is a meningo-cerebritis.

In cases where a slow degenerative process has been going on throughout the brain, the symptoms would be of a less special kind, and indicative of a general decay of the brain. Indeed, it so happens that in the well-marked cases of softening of the brain the diagnosis is often wrongly made, whereas the term is applied to examples of disease which indicate decay, but not necessarily softening. Amongst our out-patients we constantly have persons come before us presenting a variety of symptoms indicative of an impaired brain, and, for want of a better term, we declare they have softening. They evince a paralytic condition both of body and mind.

Probably one of the first phenomena you notice in such a patient is his manner of speaking. It is not so much that he speaks thick or indistinctly, but he answers in a manner which shows that his mental vigour is departing; so far from hesitating in his speech, he answers rapidly or curtly. When a person speaks slowly it may be from a careful consideration of what is to be expressed, whilst a mere hasty flight of words shows a want of the power. Thus, your patient answers you in a good-natured way, "Yes, yes, yes," and on questioning his friends you will find such an answer is not correct; it has been little more than the result of an excito-motor action. Of course, if there is much decay in the central parts of the brain, the speech may be indistinct or thick. Then, also, there may be a slight paralysis of the limbs. The patient totters into your room, as if he had lost the use of his legs. In a hemiplegia, you see patients make an effort, but here he tumbles into your presence. So with the arm, you see him endeavour to take up an object, and his hand falters. Ask him to write his name, and his hand shakes. There may be also altered sensations, as a numbness of the hands and feet, or a complaint of tingling, etc. The patient cannot button his clothes or tie the strings of his dress. There may be also some difficulty with his bladder or rectum. As a rule, the emotions are soon disturbed; the patient laughs and cries, as in an hysterical condition. Such a state may go on until one particular part of the brain is destroyed, and then marked paralytic symptoms, such as those of hemiplegia, set in.

It may happen that the friends keep back these symptoms, which they do not care to recognise; or the patient, coming alone to your study, is unconscious of them, and suggests complaints to your mind altogether of a different kind from the real ones, or alludes to certain symptoms connected with his stomach or bowels. He complains perhaps of what he calls bilious attacks or constipation. This is important to remember, because, as age advances and the brain is liable to change, the earliest symptoms may be those of gastric disorder. I have more than once been asked to prescribe for sickness which has been in all probability cerebral, from the occurrence of subsequent brain symptoms. In these cases the vomiting is often very characteristic, being little more than the stomach evacuating its contents without any spasm, pain, or effort on the part of the patient. He eats his dinner, and then, whilst sitting quiet or lying down, the whole of it will return. The diagnosis of cerebral vomiting is aided by the presence of other cerebral symptoms and the absence of any gastric disturbance, as furred tongue, etc.

Although I have said that the usually recognised forms of acute cerebritis are uncommon, I believe that an inflammation of the substance is more commonly than supposed an accompaniment of a meningitis or inflammation of the membranes.

We are in the habit of speaking of an inflammation of the substance and of the membranes as distinct affections, and no doubt they may occasionally be found separated, especially if the inflammation of the brain be local; but I think there is every reason to believe that in very many cases of meningitis there is also cerebritis, and that the more correct term would be meningo-cerebritis.

That the brain to a certain extent is involved all must allow, for in inflammation of the pia mater the implication of the grey matter produces many of the most marked symptoms, besides others which are evidently due to the state of the ventricles. In fact, a meningitis is characterised by marked cerebral symptoms.

Now, what is meant by inflammation of the membranes of the brain? What is meant by arachnitis or meningitis? You will find that many writers and most members of the Profes-

sion use these as convertible terms, and thus I well remember, when a student, how sorely puzzled I was to unravel the mysteries of such a subject as inflammation of the brain. I believe the term arachnitis was adopted by those who wished to simulate the inflammation to that of other serous inflammations, and thus would imply that the exudation processed from the arachnoid. Those who did not pretend to discover the seat of the inflammation were content with the expression meningitis. I think, however, we shall find some broad distinctions in the seat of the inflammation, and with corresponding pathological differences. The first main distinction is between the cases where the inflammatory product is found in the meshes of the pia mater, or is subarachnoid, and those where it is in the arachnoid cavity. The difference is highly important pathologically. The latter always arises from without, the source of the secretion being the dura mater, whilst the former is the only variety which is idiopathic, athough it may arise also from injury. Where the effusion is found in the arachnoid cavity, I have adopted the name arachnitis as a term equivalent to the inflammation of other serous membranes; and, having no term of strict application to the case of idiopathic inflammation where the effusion is subarachnoid, I have used the old expression meningitis. The latter may be traumatic as well as simple or tubercular.

I should like to be clearly understood on this point, as it is one of great practical importance. If I asked any novice what part was affected in inflammation of the membranes of the brain—as in meningitis, arachnitis, or by whatever name you choose to call it—he would, no doubt, remembering that in pleurisy or pericarditis the inflammatory exudation was contained in the serous sac, believe that the same was true of the brain. But it is not so; the exudation does not lie in the serous sac, but altogether beneath the serous covering of the brain. There is such a case as you picture to yourself, but this arises altogether in a different manner, and has its origin from without. The simple explanation is this—that in inflammation of other serous membranes the character or seat of the inflammation may be twofold, although you cannot distinguish between them; but in the case of the brain you can. Take the instance of pleurisy, where you find serum in the chest or lymph covering both pulmonary and costal pleura. This may have had two sources, and may imply two very different pathological processes. One man, for example, has a pleuro-pneumonia, implying a general and severe disturbance of the whole constitution, whilst another man in perfect health receives a stab in the chest (not touching the lung), and a severe pleurisy is the consequence. In the first case, if the lung recovered itself it might be impossible to say whether the lung or the thoracic walls were the source of the exudation in the pleura; but supposing the lung had a wrinkled or convoluted surface, then the lymph would be discovered beneath the serous membrane which stretched over it, and its source would be clear.

The same difficulty exists in pericarditis and peritonitis. In the case of the brain, however, it is different. The pia mater, stretching down amongst the convolutions, is the source of the exudation in idiopathic inflammation, and there being much space beneath the smooth surface of the pia mater, commonly called arachnoid, the exudation remains for the most part beneath. In the case, however, where an injury has been received to the skull, or the bones are carious, so as to implicate the dura mater, an inflammation may be set up in the latter membrane, and an exudation poured out from its smooth surface (also styled arachnoid), so as to fill the cavity. If, then, on making a post-mortem examination, you remove the dura mater, and purulent fluid trickles down, and you find both serous surfaces covered with the inflammatory product, you may be sure that this is not an idiopathic arachnitis, but has its origin in the dura mater, and you at once look to the bones. The idiopathic arachnitis or meningitis, you see, is not analogous to pericarditis or peritonitis, for the serous surface shows scarcely any exudation, the lymph being altogether in the pia mater, and beneath the arachnoid. Remember, then, simple arachnitis, or interarachnoid inflammation, arises from without; idiopathic inflammation is subarachnoid. You ask, no doubt, if the converse of the first proposition is true. No, it is not. Injury may give rise to subarachnoid inflammation, as well as interarachnoid.

In the latter or simplest form it is possible that the brain is only finally affected, and thus the reason why the symptoms are so obscure. For example, after injuries, signs of cerebral disturbance are often altogether wanting until the final coma. It is possible for a large amount of lymph or purulent matter to be poured out in the arachnoid cavity, and the pia mater, with the adjacent cineritious substance, to hold out against the inflammatory process for a long time, and thus it is only at last, and just before death, that any well-marked symptoms arise. On post-mortem examination surprise is expressed at the large amount of effusion with so slight and recent symptoms. The explanation is to be found in the fact that simple arachnitis arising from external causes is altogether a local affection. Another proof is to be found in the fact that the inflammation is often unilateral—that is, one hemisphere is found covered with lymph whilst the other is perfectly free. This never occurs in idiopathic inflammation. You must understand that although this simple arachnitis of which I have been speaking always arises from without, yet that the same form which constitutes the idiopathic variety may also arise from injury. A blow on the head may, indeed, set up an inflammation of the brain and its membranes not to be distinguished from an idiopathic inflammation, but a simple arachnitis always arises from an external cause.

(To be continued)

ORIGINAL COMMUNICATIONS.

ON BLOOD-PRINTING OR "PHANTOM BLOOD."

By FRED. W. P. JAGO, M.B. Lond.

As the physiology of the blood is at present engaging more than usual attention, I am induced to make some remarks on what, so far as my information extends, has never been noticed before—viz., the property which a blood-corpuscle has of imprinting its own image where it may have rested for a time, as on a slip of glass for example, leaving an appearance which has an exact resemblance to printing from ordinary printer's type. Thus a picture of a layer of corpuscles is left on a glass slip, while here and there the blood-discs themselves adhere.

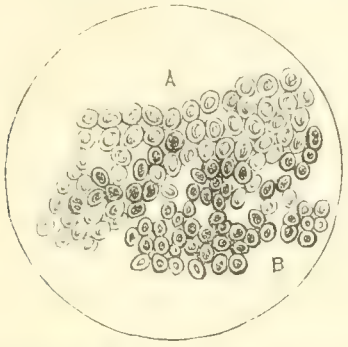
This may be better understood if some letters from the printer's "form" be supposed to have been left sticking to the paper in the act of printing because of the adhesiveness of the ink. In this comparison the blood-disc is to the blood print what the metallic letter is to the printed letter. I cannot find a name for it more expressive than "phantom blood"—whether phantom or not, others will decide.

A few months ago, while endeavouring to ascertain whether the microscope could identify human from other mammalian blood-corpuscles, especially as to the fineness or coarseness of their granular centres, I was much perplexed at the appearance presented on a glass slip of figures of corpuscles, but wanting substance, while intermixed in rows and scattered groups were the real blood-discs adhering to the glass slide.

The experiment is by no means difficult, especially after a few trials, and is best done in the following manner:—Make a fine puncture with a needle in the tip of the finger, which should be rather warm, so that a very minute drop of blood may exude. Smear the blood over a small part of the skin surrounding the puncture, and wait a short while, in order that some of the blood so spread may become somewhat dry and sticky; then gently press the tip of the finger on an ordinary microscopic glass slide. The layer of blood not dried will be transferred to the glass, but that portion of it which has become sticky will leave its impression or image only. Cover the spot thus made on the glass slide with the usual thin glass cover. The result can be observed with a Smith and Beck's two-third objective, using a No. 3 eyepiece, giving a power of about 180 linear. But to see it to perfection I would recommend their one-fifth objective of 100° angular aperture, with their No. 2 eyepiece, and the tube of the microscope drawn out two inches, to give a power of about 500 linear; the effect is much improved by the achromatic condenser. Of course any objective of good definition giving a power of 500 linear will do the same.

It appears to me that a blood-corpuscle loses some of its substance where it rests or adheres for a time, just as a moistened gum lozenge—a pink jujube, for instance—or a damp wafer will leave an impression or print of the surface applied to a clean sheet of paper. I have seen the same result when human blood (and possibly all blood corpuscles have the same property in this respect) has been placed in a liquid state under a thin glass cover. At first no effect is evident, but

after a while, as the blood dries, the corpuscles become drawn together into irregular masses with irregular air-spaces intervening, and the places where the blood-corpuscles first rested present the same images, but faintly. Under is a sketch from a slide with blood-prints from the tip of the finger.



A, blood prints, but much too dark in the figure. B, the blood discs adhering bodily to the glass slide. Here and there a part of the rim of the disc has remained, while the rest of the figure of the disc is made out by the impression left.

Among the prints of the red blood-discs may also be seen those of the white corpuscles, their impressions having the look of the true white corpuscles, the difference being that the prints, which could not be spherical, were round flat images.

If the above observations be correct, and I have again and again assured myself of their truth, the deduction is that the red and white corpuscles of blood have the property of giving off to the liquor sanguinis, and perhaps to the walls of the blood-vessels to which they adhere, the elements (germinal matter and formed material) of which the blood-corpuscles are composed.

On this view we may consider the whole of the circulatory apparatus as the reservoir into which nutrient material must flow, and out of which the wants of the system are supplied.

The blood is constantly under the ever-changing influence of endosmose and exosmose. In the mere passage of the watery part of the blood through the coats of the vessels by exosmose into the areolar spaces throughout the whole body, we have, I think, the greatest of all safety valves, the water so exuded being again taken up into the blood by endosmose when it requires it to be used until finally excreted.

In disease, the amount of fluid in the areolar spaces will increase so as to become anasarca. Is, then, excess of fluid in the areolar spaces but an exaggeration of the normal state in which water, so essential a constituent of blood, is required to be stored up by exosmose to regulate in health the varying amount of the mass of the blood, and to be a supply in time of need to be drawn back again into the circulation by endosmose?

Have we not in this power of a fluid (including molecular matter) to pass through membranes sufficient proof that, principally, if not entirely, by help of it, nutrition is transferred from the blood to the tissues?

I will only refer to what the influence of the walls of the blood-vessels may be, or whether they are the nidus for the deposit or growth of corpuscles, in their origin too small for any power of the microscope; but the question naturally ensues—From which of the two great divisions of the blood—corpuscles and liquor sanguinis—is the nutrition of the tissues immediately derived?

As there are many parts of living tissue into which a blood-corpuscle cannot enter, the inference seems plain that the liquor sanguinis affords the nutrition immediately to the tissues, and that the blood-discs and corpuscles have for their office a formative action on the constantly renewed elements of food to the blood, by which formative action of the corpuscles the liquor sanguinis is renewed.

This digression brings me back to ask, What is a blood-corpuscle?—avoiding in the answer any opinion as to its inner structure or outer form.

From recent observations there are good grounds for knowing—

1. That a blood-disc is a solid mass of germinal and formed material.

2. That it is jelly-like in substance, and adhesive.

3. That it is sufficiently elastic to become bent or twisted when obstructed in its course, and resilient enough to resume its form when free to move on.

4. That it has the peculiar, and as yet little understood, property of assuming various amœba-like forms, and, as a blood-corpuscle, it seems to stand on the brink of being a crystal, but for its life (whatever that may be), for a dead blood-corpuscle will sometimes change to a crystal, as in that of the guinea-pig, etc.

5. *That during life a blood-corpuscle is continually giving off or exerting formative action on material for the liquor sanguinis, as if every blood-corpuscle acted on surrounding elements, like the elementary part of a compound gland, with this addition, that it has to be circulated to do its work.*

Although the circulatory system in the aggregate may be so different in its anatomical arrangement from an ordinary compound gland, yet on this view, that blood-corpuscles are secreting and formative organisms, the difference is really not more striking than many other instances which comparative anatomy presents to us. What greater apparent difference can there be than between the simplest form of the liver, as in an insect, and that of the complex human liver, between the lowest form of lung and its complicated structure in man, between the rudest and earliest form of kidney and that of a human being? Indeed, in the development of the circulatory apparatus of different living beings, from the lowest to the highest, is there not a similar order of progression from the simple to the complex? Even the blood-vessels in the lower creatures are represented by mere channels without true tubular structure; after them true blood-vessels; next, added to them, is the pulsating cavity, to be followed in gradual changes by the perfectly developed heart. And the blood, or that which is equivalent to it, which circulates in a rudimentary living creature following the same plan, seems at first a fluid, without, or almost without, corpuscles, until by progressive steps the blood-discs most suitable to each of the higher classes of animals complete the scale of ascent; *and so the blood and its vessels, with whatever may be subsidiary to them, taken in the aggregate, may be supposed to be, in a physiological sense, the gland of glands, of which the blood-corpuscle is the active and elementary part.*

If we trace a blood-corpuscle in its course from the left side of the heart, through the system, and back to the right, and next in its course through the lungs, back to the points from which it started, with how many changes must it have been concerned in passing from organ to organ, acting on, and giving and taking, as it travels, many elements, whether gaseous, liquid, or solid!

How far these remarks are opposed to the theory of Cohnheim, as they seem to be, I cannot say; but as it is a well-accepted opinion that the corpuscles of the blood are composed of germinal matter and formed material, the additional theory that the corpuscles are always producing formed material for the liduor sanguinis from which the tissues are immediately supplied, must, if corroborated, have an important bearing, and lead to a more distinct appreciation of what blood-corpuscles really are, and how they work.

Plymouth.

THE CLUB QUESTION IN THE BLACK COUNTRY.—At Wolverhampton last week, a meeting of the members of the Courts of the Order of Foresters was held "for the purpose of considering the application by several of the club Surgeons for an increase of salary." After an animated discussion, the following resolution was unanimously agreed to—"That this meeting cannot but express its astonishment at the unreasonable demand made by the Surgeons of the Courts in Wolverhampton, they having often expressed themselves satisfied with the remuneration they now receive, and that this meeting further consider 4s. per annum per member a just and full amount for their services." At the same meeting, a deputation was also appointed to wait upon the several Surgeons, to acquaint them with the nature of the resolutions of the Courts, which were to the effect that they would not comply with the requests of the Medical men for an increase of remuneration to the amount of 5s. per head per annum. We are glad, however, to be able to record the fact that several of the more liberal Courts are willing to pay 4s. per member instead of 3s., the sum hitherto regarded as the standard yearly sum per member. Even this small increase in the scale of remuneration shows that the club agitation has been of some little service, and has not, bubble-like, exploded into nothingness.

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Medical Times and Gazette.

SATURDAY, JUNE 27, 1868.

THE GENERAL MEDICAL COUNCIL.

Our little Professional Parliament once more met for its annual session on Wednesday, the 24th inst., and again is indebted, as usual, to the courtesy of the Royal College of Physicians for a decent local habitation. What the Council may think it most important to do, or attempt to do, this year, we will not presume to guess. Certainly they need not spend their time in discussing a Medical Act Amendment Bill, for no one, we suppose, can imagine that the larger Parliament will have any time or energy to bestow on such a subject this year. Man, and especially the man Medical, "never is, but always to be blest," and a good Medical Act Amendment Bill must, like many another important measure of general utility, be postponed to that happy time when politics shall give way to statesmanship, and part shall no longer be deemed greater than the whole—when that which is meant for mankind shall no more, for a time at least, be given to party, nor place and power be thought of before the national good.

But there is plenty of real and good work waiting to be well and efficiently begun and carried on, if not completed, this year by the Medical Council, and we will venture, in the most delicate manner, to hint the hope that they will not be tempted to give us any very intolerable quantity of the sack of speechifying for the bread of substantial work. We cannot say, however, that we express this hope with any great amount of confidence, for the programme of business for the first day of the session contained several subjects very provocative of discussion, and, at the same time, was a very full and lengthy bill of fare. It contained twenty-one items, one at least of which would have been sufficient of itself to occupy a day's sitting, we should think, as it was no less than a suggestion for reform of the constitution of the Council itself. Many of the subjects are of course old and familiar friends, as the Reports of Visitations of Examinations; but these come this year from Scotland and Ireland only, the Branch Council for England having resolved "that, considering that the examinations of the several English licensing bodies have been visited and fully reported on during two successive years, and that important changes are still in progress in several other bodies," it had not thought it necessary to repeat the visitations since the last meeting of the Council. The report of the Committee appointed to prepare a scheme for the visitation of examinations, adopted by the General Council last year, comes before them for consideration this year, together with "observations of the licensing bodies upon the report." On these observations we have not time to enter now, but a hasty glance at them gives the idea that the various licensing bodies have been very unanimously, and rather amusingly, anxious to show that all the changes and improvements in the examinations which the Council have recommended have been made spontaneously and long ago by the licensing bodies themselves.

These reports and observations, as well as some other subjects, including the question of the necessity of a certificate being required from all candidates for diplomas of their having been properly instructed in and practised vaccination, were referred to committees. Mr. Syme then moved "that a Committee be appointed to consider and report how the various subjects of Medical education which have been deemed requisite by this Council may be taught with most advantage, in what order they should be studied, and how the examinations on them ought to be arranged." The very large and important subjects thus mooted naturally excited considerable discussion. Sir Dominic Corrigan moved an amendment confining the inquiry to the order in which the subjects of education may be most advantageously taught, and the manner in which the examinations on them ought to be arranged, and the debate was adjourned to the Thursday. Thus the Council did not succeed in getting through even nine out of the twenty-one matters in their programme. We have not time this week to notice more fully the meeting of the Council, but we gladly refer our readers to the able and lucid opening speech of the President for a sketch of the most important work before it.

MEDICAL POLITICS.

"Rest and be thankful" is no motto for Medical reformers. And we are heartily sorry for it. All restlessness is a mark of weakness, suffering, poverty. Thriving Practitioners tell us that they have no time to waste on politics, and we suspect that a thirst for politics is a sign that the Profession is not thriving. We have always indicated our own conviction that the best Medical reform is to improve ourselves—to make ourselves better capable of treating disease, and so of getting better fees and more of them. Let us fill our younger ranks with well-educated recruits; there is plenty of work for the Council in improving Medical education; but when we come to speak of proposed organic changes in the constitution of the Medical Council, we must confess that we have something of that feeling of sickness which arises from hope deferred until it is hope no longer.

The Council, it is said, does not directly represent the mass of the Profession, but only certain corporations whose interests may be antagonistic. Hence it is proposed to abridge or condense the representation of corporations, and to introduce members chosen by the suffrages of qualified Practitioners. But the question arises, if the Profession is not represented, because the corporations do not represent it, why not reform the corporations, and make them representative bodies? Are they so now? Let us see.

The London General Practitioners complain that they have no home, no institution, such as the solicitors have in the Law Institution in Chancery-lane, where they can meet, manage their own affairs, and provide for the education of their own class. But then it must be remembered that the barristers and solicitors are divided by the strictest boundaries. A century ago a lawyer meant a counsellor or barrister, and Dean Swift speaks of Lawyers and Attorneys as quite different, as people spoke of Physicians and Apothecaries. But there is now no abrupt line of demarcation between the General Practitioner and the Physician, and there would be something distasteful in bracketing the former off as a distinct and inferior class. If the Apothecaries' Society had admitted its licentiates to its corporate privileges on easy terms half a century ago, it would have been one of the strongest representative corporations in the kingdom; but such a scheme is hopeless now.

As for the Royal College of Physicians, it is well known that a movement was lately originated by some of the ablest

and best placed General Practitioners at the West-end with a view of offering their allegiance to the College. They proposed to accept the licence of the College if it were granted them at a moderate fee and without examination. The object of these gentlemen was of the purest. No addition of L.R.C.P. to their titles would affect their fortune or position in the least, but they think it would be setting an example to younger men; they would induce the latter to seek their licence from the College of Physicians instead of from the Apothecaries' Hall, supposing that it would tend to give a lift to the Profession of the future if young men were induced to start as Physician-Surgeon instead of as Surgeon-Apothecary. But the movement has come to nothing; the promoters have acted languidly, as men naturally do who ask for what is not to benefit themselves. Moreover, the fact seems to be becoming well known that a dozen or more of Licentiates find so little an *Alma Mater* at Pall-mall that they have proposed to tear up their licences and return them to the College.

The Royal College of Physicians is under the influence of men who must of necessity be a body apart from the General Practitioner. Men who have devoted early years to study and to teaching, and who refuse small fees, deserve to rank apart from those whose early years are spent in booking half-crowns, and it is not in human nature to expect that the College would admit General Practitioners, and especially London ones, to its privileges and authority.

There is this distinction between London and country General Practitioners—that the *forte* of the former is Physic, of the latter Surgery. Surgery of any serious kind, in London, falls to the share of the *pure* Surgeon. If a General Practitioner in London were emphatically called a *Surgeon*, it would be supposed that he did not take family practice. In the country the Practitioner is called a *Surgeon*; and, if called a *Physician*, it might be supposed that he did not send in Christmas bills nor supply medicines if requested. Hence, for the country Practitioner the F.R.C.S. is one of the most profitable titles he can have; in London the General Practitioner would think it useless or superfluous. The country Practitioner, then, has a natural "home" in Lincoln's Inn-fields—at least, he can attend an election once a year, and express his opinions by vote if not by voice. If it be impossible to be elected on the Council, the exclusion is rendered less offensive by distance; but the London Practitioner may eye both Colleges and the Hall, knowing that he can never have a single voice in the management of their affairs, internal or external.

We conclude, then, that the corporations are not, and are not likely to be made, representatives of the large body of Practitioners; for even granting that the College of Surgeons and the Apothecaries' Hall represent a majority of the English Practitioners, yet what are their two representatives amongst so many?

Any reform of the Council can only be obtained by an Act of Parliament, and that can only be obtained by incessant agitation; that agitation can only be based upon the supposed inefficiency or unpopularity of the present Council. Any "addition" of members will be deprecated, as tending to additional discussion and expense. If the constitution be altered, it must be by compressing the representation of the universities and corporations, and making it proportionate to the number of their graduates or licentiates. In this age of reform, it is hard that Medical Practitioners shall not be represented directly if they wish it; yet it may be doubted whether the men they would choose would not be the same as those now elected by the corporations and the Crown.

THE WEEK.

TOPICS OF THE DAY.

In a letter addressed to Mr. Savory, Sir John Lubbock has expressed his determination not to continue his candidature for the representation of the University of London. The reasons of Sir John Lubbock's retirement are that he has been invited by the Liberal party to offer himself for West Kent, and that, besides himself, there are two Liberal candidates for the University of London, Mr. Bagehot and Mr. Lowe, each of whom has received many promises of support. This being the case, it remains to be seen whether those who think that the first member for the University of London should be a man who would fairly represent the interests of science and of our Profession may not, even at the eleventh hour, succeed in bringing forward such a candidate. Sir John Lubbock appealed to the graduates as a Liberal and a man of science. We believe he would have received larger support had he relied more upon his scientific standing and less upon his political opinions.

The interest in the election of Councillors at the Royal College of Surgeons is rapidly reaching its culminating point. Next Thursday the election takes place. What will be the result, no one can tell, and few venture to prophesy. The only candidate who, we believe, is certain to be returned is Sir William Fergusson. The various claims of the other candidates we have already frequently discussed, and we have but little to add to that which we have said. Mr. Partridge has been a tried and most valuable official in the College, and had he not already emptied the cup of honours which the College offers, his return would have been certain. Mr. Simon is the trusted and confidential adviser on Medical matters of the Government of the country, and his recent presidency over the Pathological Society has proved that his interest in the practical work of the Profession has not been diminished by the official atmosphere of Richmond-terrace. Mr. Erasmus Wilson has, we think, this year special claims upon the votes of the Fellows. As, by his early writings, the teacher of anatomy, *par excellence*, of the generation of Medical men who are now in the full tide of Professional life, as one who has taught by his example that a special branch of practice may be successfully pursued on scientific principles and with no stain of quackery, and as one who has shown the younger members of the Profession that character, talents, and industry will rise unhelped by Hospital cliques and unpatronised by Hospital committees, we hold that he merits, as but few else merit, the suffrages of the Fellows. Of the other candidates, we believe that Mr. Gay and Mr. Holden are already high up the ladder of popularity. Mr. Gay's reputation as a Surgeon and an improver of Surgery, and the high estimation in which he is held by his Professional brethren, will undoubtedly bring him a large number of votes. Few men have, or deserve to have, more friends. The remaining candidates, Professor Humphry, Mr. Charles Brooke, and Mr. George Cooper, have all also their own claims to consideration. We regret that we shall not be able to congratulate all these gentlemen on success, but it is a law that admits no exception —"when two get upon a horse, one must ride behind."

The Sale of Poisons and Pharmacy Bill has now passed the House of Lords, and awaits the verdict of the Commons. Somehow the chemists and druggists have managed the matter better, thus far, than the representatives of the Medical Profession. There is not the remotest chance of any Medical Amendment Act being passed by Parliament this year, whilst the Pharmaceutical Society have managed to push their measure rapidly through the Lords, and probably, before this is in the hands of our readers, it will have come on for a second reading in the House of Commons. The Duke of Marlborough's clause, which places the examinations of chemists under the supervision of the Privy Council, will, it is clear, throw fresh power into the hands of the Medical department of the Privy Council. How far this is an entrenchment on the proper functions of the General Medical Council, we must leave our readers to judge.

The rejection by Parliament of the proposal to give a mem-

ber or any representation to the Queen's University in Ireland is, we think, to be deplored. The University would at least have returned a scholar and a gentleman—a character which will probably not be so common in our future Parliaments as in our past. The Queen's University and the University of Durham will now be the only universities in the three kingdoms without representation.

The postponement of the election of Professor Sir James Y. Simpson to the Principalship of the University of Edinburgh has led to a warm discussion in the Edinburgh Town Council, which sends representatives to the Curatorial Court of the University. The postponement took place upon the presentation of a memorial signed by twelve Professors of the University, amongst whom were Professors Christison, Syme, Maclagan, and Hughes Bennett. On the receipt of this memorial the election was postponed until the return of the Lord Provost, and is fixed for July 6. We believe that on that day Sir James Simpson will certainly be elected. Professor Simpson's world-wide fame has reflected a lustre not only upon the University of Edinburgh, but upon the whole Medical Profession in Scotland. If the electors were to choose his opponent, it would be the most striking of modern illustrations of the truth that a prophet hath no honour in his own country.

The subject of syphilisation has been recently under discussion in the Medical Society of Christiania. A correspondent writes that the result of the discussion shows that even in this city, its chief home, syphilisation numbers but very few advocates, and of those who have pronounced in its favour but very few practise it.

We regret very much that the Admiralty have refused to give Dr. Stirling any proper redress from the treatment to which he has been subjected by Commodore Randolph. We shall not again allude to the facts of this now notorious case. We can only recommend the younger members of our Profession to make themselves masters of its details before they think of accepting service as Assistant-Surgeons in her Majesty's Navy.

The subject of Medical certificates to courts of justice has, of course, been universally discussed since the refusal of Mr. Knox to accept Sir William Fergusson's certificate in the case of Madame Rachel. Our advice to our Medical brethren, when asked to put their names to such documents, unless they are completely aware of the whole facts of the patient's history and circumstances, is the often-quoted to persons about to marry—Don't.

Amongst the officers of the Naval Brigade who took part in the Abyssinian expedition, and have been favourably mentioned in the dispatch of Commander Butter Fellowes, is Assistant-Surgeon Henry Nanton Murray Sedgwick. Of this officer Commander Fellowes writes :—

"Mr. H. N. M. Sedgwick, Assistant-Surgeon, whose constant kindness and attention to the sick, often under trying circumstances, has met with my warmest approbation."

It is to be hoped that Mr. Sedgwick's services, thus publicly acknowledged, will obtain from the Admiralty some substantial reward.

PARLIAMENTARY.—SALE OF POISONS AND PHARMACY ACT AMENDMENT BILL—IRISH UNIVERSITY REPRESENTATION—POOR RELIEF BILL—SCOTTISH REFORM BILL.

In the House of Lords, on Thursday, June 18,

On the motion that the Sale of Poisons and Pharmacy Act Amendment Bill be read a third time, Lord Redesdale moved to insert a clause providing that poisonous drugs should only be sold in bottles of a particular shape—that shape to be decided upon by the Pharmaceutical Society.

The Marquis of Salisbury opposed the clause, on the ground that it would hamper the chemists, and interfere with the administering of the medicine prescribed where the chemist happened to be out of stock of the particular shaped bottles, and also on the ground that it was contrary to the principles of our legislation to protect people from possible dangers because foolish persons might have it in their power, through their carelessness and folly, to injure themselves.

After some conversation, their Lordships divided, when the clause was rejected by a majority of 6—39 being for, and 45 against it.

The Bill was then read a third time, and passed.

In the House of Commons, in the debate on the Irish Reform Bill, a clause moved by Mr. C. Fortescue to group together the University of Dublin and the Queen's University was rejected by a majority of 183 to 173. A proposal by Mr. Fawcett to provide a separate and independent member for the Queen's University at the expense of the smallest Irish borough, Portarlington, was rejected by 210 to 55.

On Tuesday, June 23, in the House of Lords, the Poor Relief Bill was read a third time and passed.

The Scottish Reform Bill was read a second time.

GENERAL MEDICAL COUNCIL.

ELEVENTH ANNUAL SESSION.

First Day.—Wednesday, June 24.

The eleventh annual session of the Council commenced at the Royal College of Physicians, Pall-mall, on Wednesday last, at 2 o'clock. The roll was called, and the following members answered to their names :—

The President in the chair.

Dr. Risdon Bennett.	Mr. Cæsar Hawkins.
Mr. Cooper.	Dr. Acland.
Dr. Paget.	Dr. Embleton.
Dr. Storrar.	Dr. Alexander Wood.
Dr. Andrew Wood.	Dr. Fleming.
Mr. Syme.	Dr. Thomson.
Dr. Aquilla Smith.	Mr. Hargrave.
Dr. Leet.	Dr. Apjohn.
Sir D. J. Corrigan, Bart.	Dr. Sharpey.
Dr. Parkes.	Dr. Quain.
Mr. Rumsey.	

The minutes of the adjourned meeting of Saturday, June 8, 1867, having been read and confirmed, the President delivered his annual address as follows :—

Gentlemen,—Before we proceed to business I wish to occupy your time for a few moments. Ten eventful years have transpired since the Legislature created this Council for the purpose of performing the most important duties towards the Profession and the public. For nine of those years I have had the honour of being associated with you in your labours; and now for nearly five, by your favour, I have occupied the distinguished post of President. When the vessel in which we have all embarked was first constructed, she excited the scrutiny and criticism of the whole Profession. She was looked at with approbation by many, and many anticipated very great results from her progress. Others looked upon her, perchance, with a certain amount of doubt and suspicion, and some, unquestionably, with unfriendly eyes. Our vessel had, when she was first launched, to steer her course through unknown or hitherto untraversed seas, and often with troubled waters, with quicksands around us and breakers ahead; and she visited many ports where her presence perhaps was hardly welcomed. Our crew, brought from various and distant parts of the empire, had never before worked together, and therefore laboured under very serious disadvantages. Many of our prominent men, unhappily, have been taken from us, but there still remain, I believe, nearly half the veterans of the original crew to warn those who have since been enlisted into the arduous and responsible service of the dangers they have passed through, and also to give them the benefit of their experience

in the conduct of our business for the future. Gentlemen, I believe our craft is still sound. Our crew is better disciplined. Through common dangers and common difficulties we have learnt to esteem or to appreciate each other; and I hope, gentlemen, that in the venture of this season, by our strict denial of self, by circumspection and prudence, and devotion to our labours, we shall be enabled to make this venture not only profitable to those whose interests are committed to our charge, but also creditable to ourselves. In former years I have, in my opening address, ventured to retrace the proceedings in the previous session, and to intimate some of the questions which you would be called upon to discuss during the current session. But, in consequence of the additional duties assigned to our Executive Committee, it would be presumptuous on my part to arrogate to myself the task which must be necessarily more ably performed by the joint labours of that Committee. In accordance with their own wishes, and with the standing orders of the Council, the Executive Committee met here yesterday and arranged a programme, which is now placed on the table before you, for the transaction of the business of the session. It is, however, incumbent on me, as your President, to render you some account of the manner in which I have performed some of the public duties which have devolved upon me personally, and which, to a certain extent, may influence you in the course you may think proper to adopt in carrying out the business of the Council. By a resolution passed by us on June 6, 1867, and also by a subsequent resolution passed by the Executive Committee, November 12, 1867, both of which are found recorded in Vol. V., page 273, of our Minutes, not only did your President become charged with the duty of conferring with the Government respecting the Bill for the improvement of the Acts relating to the Medical Profession, but during the past twelve months I have had additional interviews with the Government. More especially in February last I pressed upon Mr. Gathorne Hardy the question of the amendment of the Medical Acts, and I requested him to give assistance to the Council in bringing in a Bill, at that time hoping to obtain that assistance. Mr. Gathorne Hardy frankly said that in the early part of the session of Parliament he had so many Government Bills upon his hands that he could hold out no promise of assisting the Medical Council before Easter; but that if the state of public business would permit, before the end of the session, he would give his attention to the subject. Mr. Hardy also requested me to prepare a memorandum for him embracing, in a succinct form, the points to which we wished to draw his attention. With the able assistance of our Registrar, Dr. Francis Hawkins, I was preparing these documents immediately before the Easter recess, when, as you know, a thunderbolt was thrown down upon the floor of the House of Commons which startled and amazed the uninitiated, disconcerted all the Government plans, and practically put an end to all legislation in the present session. Then commenced what has been facetiously called "the slaughter of the innocents." Bill after bill was sacrificed. It was hopeless and useless to press upon the Home Secretary the fulfilment of the promise he held out to the Medical Council to bring in a Bill in Parliament this session. All prospect of Medical legislation had therefore vanished, and it seemed unnecessary to summon you from your public and private duties until this somewhat late period of the session. The Medical Council would therefore be relieved from any present necessity of discussing that question which has occupied so much of their time in former years. But, although the question of the amendment of the Medical Acts will not be before you, still, as this will, in all probability, be the only opportunity which I shall have of addressing you from this chair as President, I will venture to make a few suggestions for the consideration of those who may hereafter be called upon to carry on negotiations with the Government for the reform of the Medical Acts. Let me call to the remembrance of the Council the position in which we stood. One of the first obstacles last year was the difference of opinion between the late Secretary of State for the Home Department, Mr. Walpole, and this Council upon the terms of the clause enabling this Council to admit colonial and foreign graduates to the Medical Register. The question is likely to be brought before the Council this year in consequence of the application of the University of Melbourne, addressed to the Imperial Government, to have their Medical graduates admitted to the status of Medical Practitioners in this country, and also because this Council has committed itself, in a resolution moved by Sir Dominic Corrigan, seconded by Mr. Cæsar Hawkins, and accepted by the Council of June 3, 1867, that letters should be addressed to the Universities of Melbourne, Calcutta, and Sydney, informing them that the subject should receive the full consideration of the Council. Gentlemen, considering the difficulties that have been experienced in drawing up a clause affecting this registration of colonial and foreign graduates, I would humbly suggest whether the difficulty might not be surmounted without attempting to frame a new clause at all, but simply by a verbal amendment of the 46th clause of the original Act of 1858, which enabled this Council to make a special provision for the registration of persons practising Medicine and Surgery in the United Kingdom upon foreign and colonial Medical degrees. The operation of the clause before the Act of 1848 was simply retrospective, and the amendment which I would suggest for future consideration would be to make it prospective as well as retrospective. Under the powers granted to the Council by that clause, no less than 284 colonial and foreign candidates were admitted on to the British Medical Register, and there is no reason for the Legislature to suppose or to suspect that this Council would not act with the same liberality for the future as it has done in the past. And I feel sure that any Committee of this Council appointed to investigate the claims of colonial and foreign graduates for registration, would devote the same patient care and attention to the subject as the former Committee did, which was so ably presided over by the distinguished representative of the College of Physicians (Edinburgh), Dr. Alexander Wood. I commend, therefore, the foregoing suggestion to the consideration of the Council as a means of avoiding the difficulty attendant upon drawing up a new clause which would be equally acceptable to the Government and to this Council. A second suggestion which I would venture to offer for future occasions is this —that any further application to the Government to assist the Council in Parliament should be made in a different quarter to that hitherto selected. The Home Secretary has always hitherto been applied to to introduce our Bill into the House of Commons to amend the Medical Acts, and the uniform reply has been that the pressure of public business has prevented him from acceding to our wishes; and I believe such will ever be the answer, unless some very powerful parliamentary or external pressure could be brought to bear upon the Secretary of State for the Home Department. Now it was suggested, as you will remember, by Sir George Grey, when in office, that it would be better that this measure should first be introduced into the House of Lords. After much experience upon this subject and deep reflection upon it, I am inclined to think that this suggestion is not only the course which is likely to be attended with the most success, but it is the course which ought rightly to have been adopted from the very first. My reasons for thinking so are as follows: —According to the enactments of the Medical Act of 1858, this Council has not properly any relation with the Secretary of State for the Home Department, although the Act itself happened to be introduced and carried through Parliament by the late Secretary of State, Mr. Spencer Walpole. On the other hand, you will bear in mind this Council partly emanates from, and may have the most important relations with, her Majesty's Privy Council. In the constitution of the Medical Council you must bear in mind that six of our number—a fourth of the whole—are not representatives of the Universities or Medical corporations of the country, but are nominated by her Majesty, with the advice of her Privy Council; also that by Clauses 20 and 21 of the Medical Act we are directed, under certain circumstances, "to make representations to her Majesty's Most Honourable Privy Council," not to the Secretary of State for the Home Department, and the Privy Council is called upon, if it shall think fit, to enforce any of the recommendations or representations emanating from this Council. Again, by Clause 23 of that Act it is the Privy Council which is directed to prohibit any attempts on our part to impose improper restrictions upon the practice of Medicine and Surgery, and the Vice-President of the Committee of the Council of Education is especially directed to take part in any orders connected with the carrying out of the directions of the Medical Council. It appears, therefore, as I have already said, that we are a Council of Medical Education, and have much to connect us with her Majesty's Privy Council; it would be henceforth very much more expedient and proper that we should seek the assistance of the Lord President of the Privy Council to introduce any measures which we may have in view into the House of Lords rather

than to seek the assistance of the overworked Secretary of State for the Home Department to introduce them into the Commons. I must yet say a few words with reference to the Act of Parliament which has been recently passed, entitled "An Act to amend the Law relating to Medical Practitioners in the Colonies." Prior to the introduction of that Bill into the House of Lords by the Duke of Buckingham and Chandos, I was called upon, by the direction of Mr. Secretary Hardy, to peruse various documents relating to the proposed Bill, and to give my opinion upon them. Having read them carefully through, I fortunately had the opportunity of conferring with the Executive Committee upon the subject before I wrote my reply to the Home Secretary. In my reply, I made various suggestions in reference to the proposed legislation, and the Bill itself, if it has not been seen by the members of the Council, is placed on the table, together with a letter I wrote to her Majesty's Secretary of State for the Home Department. I also wished to place that before you because I have not had an opportunity of bringing it before to your notice. The Duke of Buckingham and Chandos proceeded with his Bill in the House of Lords, and I found all my suggestions, contained in the letter which I have just alluded to, entirely ignored. I, therefore, immediately applied for an interview with the Colonial Secretary, and, that being granted, Dr. Sharpey and Mr. Cæsar Hawkins accompanied me to the Colonial Office. In offering our objections to this Bill, I adverted to my letter as President of the Medical Council upon the subject, when his Grace informed me that he had never seen or heard of any such letter, and in truth we found that this letter, which had been prepared with care and addressed to the Secretary of State for the Home Department, had never been forwarded to his Grace. Fortunately at the time I was prepared with a copy of the letter, which I then read to the Duke in the Colonial Office, and left the matter with him. The result was that the objectionable parts of the original Bill were amended, and a Bill has been passed to which little objection can, I think, be offered. There is another topic which I must allude to before I sit down, and that is, the prospect of your being invited to look into your own constitution, and to decide whether you think that constitution would be improved by the increase of your numbers and the introduction of members who are to represent interests in the Profession which it is thought are not duly represented at the present time in your Council. It could hardly be expected that, in this era of radical reforms and changes in the Legislature, this Medical Council, which has hitherto been regarded as fairly representing the Profession for those purposes for which it was constituted, should remain undisturbed, and that attempts would not be made to alter its constitution and its character. I am sure I am expressing the sentiments of all when I say that, whenever this question is properly brought before us, we shall be prepared to give a patient, careful, candid, and temperate consideration to the arguments and the facts by which such an important proposal is supported. Lastly, it is a duty which I owe to you as members of the Council to inform you of a circumstance to which in the foregoing observations I have already alluded. My term of office as your president will possibly have expired before the next annual session of the Council. Now, it is all-essential for the future harmony, credit, and good working of this Council that this question of the election of my successor should not take any of you by surprise. You will, during the present session, have frequent opportunities of personal intercourse, and I trust that you will make this one of the topics of private friendly discourse, for it is a topic which can hardly be discussed in public. Then as to the precise date when I should vacate the chair, whatever course may most contribute to the convenience of the members of the Council, and whatever course may be supposed to be most conducive to uphold the dignity and honour of the office I hold, that course will be most acceptable to my feelings. I thank you, gentlemen, for the patience with which you have listened to my observations, and, with your permission, we will now proceed to the business of the day. (Applause.)

Mr. Syme was understood to say that he had great pleasure in announcing that certain reasons which prevented him from serving upon committees with another member of the Council no longer existed.

Sir Dominic Corrigan hailed with pleasure the desire of Mr. Syme to renew that feeling which he trusted would always exist between members of the Council.

The following business was then proceeded with in the order of programme—"Dr. William Macdonald, of Eving-place, 359, Argyle-street, Glasgow, summoned to appear before the Council on Thursday, June 25, at 3 o'clock p.m. Mr. Ouvry to be in attendance."

The Registrar stated that Dr. Wm. Macdonald had written to say he was unable to appear, and sent a certificate respecting his health signed by a person not registered. (Laughter.) Mr. Ouvry would be present to-morrow, and would state to the Council the course he advised them under the circumstances to pursue.

The following members were then appointed to constitute the Business Committee:—Dr. Andrew Wood, chairman, Dr. Embleton, Dr. Aquilla Smith, Mr. C. Hawkins, and Mr. Rumsey.

For the Finance Committee, Dr. Sharpey, chairman, Dr. Quain, Dr. Aquilla Smith, Dr. Fleming, and Mr. Cooper.

The next business brought before the Council was, "Application to the Council to receive a deputation from the Council of the British Medical Association in reference to the further representation of the Profession in the Medical Council," in connexion with which the Registrar then read the following letter:—"Dear Sir,—The Committee of the Council of the British Medical Association have appointed a deputation to wait upon your Council in reference to the further representation of the Profession upon the Council. I shall be accordingly obliged if you will kindly inform me on what day it will be convenient to receive the deputation. As Saturday and Monday will be very inconvenient days for country Practitioners, I will venture to suggest Tuesday, June 30, if that will be convenient to the Council. I remain, yours faithfully, T. Watkins Williams."

Mr. Syme asked if it was quite certain the present session would continue until Tuesday next. (Laughter.) He asked the question in all seriousness, for he did not think the Council ought to occupy more time than that in the transaction of the business in hand.

The President said he was afraid he could not hold out any possible hope of completing the business by that day.

Dr. Paget moved, and Sir D. Corrigan seconded, a resolution in the terms of Mr. Watkin Williams's letter, and appointing 3 o'clock as the hour.

The next business upon the programme was, "Communications from the Branch Council for Scotland relative to lunacy certificates (*Minutes of Executive Committee*, February 26, 1868, No. 80, p. 6)."

Dr. Andrew Wood called attention to the inconvenience which arose from the present operation of the law relating to certificates of lunacy. The object of the Medical Act was to insure that, if a man's name was placed on the register, he should be at liberty to practise all branches of the Profession in every part of her Majesty's dominions; but a lunacy certificate signed at Carlisle was not valid at Dumfries under the present lunacy law, and *vice versâ*. That was, he contended, a sufficient case for the interference of the Medical Council; and he hoped they would agree that there was a necessity for taking action in the matter. He suggested that the question should be submitted to a committee, who should prepare a report, which might be embodied in a memorial to be addressed to her Majesty's Government, with a view to remedying the present anomalous state of things.

Dr. Bennett suggested that their legal adviser should be consulted upon the subject.

Dr. Fleming said that, having had a conversation with Mr. Ouvry on the subject, he might state that the difficulty which existed, and which it would be well for the Committee to direct their attention to, was that the Lunacy Commissioners in England had no local jurisdiction over Medical Practitioners in Scotland, and *vice versâ*.

Dr. Andrew Wood then moved the resolution as follows:—"That the reference to the Scottish Branch of the Council on the question of lunacy certificates be committed to a Committee, who shall meet in concert with Mr. Ouvry, and prepare a report, in order that her Majesty's Government may be communicated with during the present session of the Medical Council, in regard to the necessity of such legislation as will remedy a serious grievance to the public as well as to the Profession."

Dr. Alexander Wood seconded the motion; but, on the suggestion of Sir D. J. Corrigan, the resolution was amended into a direction to the Committee simply to report to the Council upon the subject, leaving out all words which should appear to prejudge the question.

The following members were appointed as a Committee for this purpose:—Dr. Andrew Wood (Chairman), Sir D. J. Corrigan, and Mr. Rumsey.

The next business upon the list was "Information collected by the Executive Committee on the subject of vaccination."

The Registrar read a summary which appeared on the Minutes of the Executive Committee.

Dr. Embleton wished to add "That a knowledge of vaccination should be required in all cases from candidates for qualifications for Medicine or Surgery, and, after the examination on vaccination, should be specially named in the list of subjects next year."

Mr. Cæsar Hawkins moved, and Dr. Paget seconded, that the letter of the Medical Department of the Privy Council, together with the letters of the various licensing bodies connected with the subject of vaccination, be referred to a Committee to draw up for the approval of the General Council an answer thereto.

The following was the Committee appointed:—Mr. Cæsar Hawkins (chairman), Dr. Fleming, Dr. Leet, Dr. Storrar, and Dr. Bennett.

"The report of the Committee of the Medical Council on the visitations of examinations, with the observations of the licensing bodies upon the report," was then brought before the Council by Dr. Paget, who moved that the reports and observations above mentioned be referred to a Committee.

After some remarks from Dr. Andrew Wood, Dr. Alexander Wood, and Sir D. J. Corrigan, the motion was adopted in the following amended form:—"That the observations of the licensing bodies and the report of the Committee of the Medical Council on the visitations of examinations be received and entered on the Minutes."

Dr. Paget then moved that a Committee be appointed to consider the reports and observations referred to in the list of resolutions, and to report thereon to the Council.

Sir D. J. Corrigan objected to any summarising of the papers before the Council. If the Committee were to be appointed for that purpose (and he could conceive no other purpose which could arise out of the reading of that resolution) he would most strongly object to any such course being pursued.

Dr. Alexander Wood was glad for once to be able to agree with the learned baronet, because he so often found himself on opposite sides with him. But he believed that the report of the committee last year, honest and laborious as it was, did considerable mischief, and gave offence to several of the Medical Boards. In going through that report it was very evident that the whole of it was pervaded by the influence of one master mind, who had got a theory of what an educational body should be—(cries of "Name")—and the consequence was that, according as educational bodies agree or disagree with the theoretical view of Medical education, we find favour at the Royal College of Surgeons, Edinburgh—(laughter)—and their system was commended or condemned by the report of that Committee. Again, Dr. Andrew Wood had been allowed to explain one matter relating to the Royal College of Surgeons, Edinburgh, which had been called in question by some members of the Committee. This gave an unfair advantage to bodies who had no representatives sitting upon the Committee.

The President thought Dr. Alexander Wood was travelling beyond the bounds of order when he entered into an analysis of the report of the Committee presented to the Council last year, and proceeded to make observations upon the conduct of any member of that Committee.

Dr. Alexander Wood: I am not reflecting upon any particular individual, but upon the character of this report.

Dr. Andrew Wood: At the commencement you referred to a master mind upon that Committee, and you are also now bringing in a charge against a particular individual.

Dr. Alexander Wood said there were certain observations which, if he had been a member of that Committee, he might have introduced into the report with regard to the College of Physicians of Edinburgh in order to explain away some objections. I have contended, he said, that it was most unfair for those parties who were not represented on that Committee that any explanations should be allowed to be given simply because a gentleman happened to be appointed upon a Committee. Their duty was to report upon the facts and documents which were before them.

Dr. Sharpey denied that members of the Council who were not appointed upon the Committee were not allowed an opportunity of explaining, and instanced the case of Dr. Hargrave, who had made an explanation with reference to the College of Surgeons, Ireland.

Dr. Alexander Wood said those who happened to be present were allowed to make explanations. He was accidentally absent, did not know what the report was like, and, of course, could not make any explanations.

Dr. Andrew Wood said that Dr. Sharpey had anticipated him in the remark he was about to make. Various gentlemen who were not members of the committee gave explanations during its sittings; but any man who recollected what happened on the last day of the last session of the Council, would remember that there were suggestions from one and another all round the table, and that in compliance with those suggestions the report was considerably altered. To comment, therefore, upon the unfairness of the report, or to complain that a master-mind had been at work on the Committee, and all that sort of rubbish—if they would pardon a strong expression—was really to cast a heavy slur upon not only the Committee of last year, but every Committee which should sit for the future upon the affairs of the Council. He could say personally that every one of the members of the Committee took part in the drawing up of the report. It was not drawn up by a single man, whether he had a master-mind or not (laughter), for there were various minds employed upon it. It was obvious, therefore, that Dr. Alexander Wood's objections, so far as they were founded upon what was done last year, were utterly groundless and without reason.

Dr. Quain seconded the motion of Dr. Paget.

Sir D. J. Corrigan said, it would be in the recollection of the Council that he, at least, considered the summary arrived at by the Committee so unfair, that he was obliged to object to it, and that Andrew Wood and Dr. Parkes refused to let in a part of the Report from the College of Physicians of Ireland, which he considered most important, namely that the examinations were open to the public. He quite recognised, with Dr. Alexander Wood, that it was most unfair to give the members of the Committee the advantage of inserting explanations with regard to the Universities which they happened to represent, and, with that experience before him, he objected most strongly to any Committee making a summary of documents which were already upon the minutes.

Dr. Paget said, it never occurred to him until the present moment, that any member of the Council could suppose the Committee of last year made an unfair report. That their report might contain mistakes was quite possible, for he could assure the Council that their duties were most fatiguing ones, but if it was to be supposed that any gentleman on this Council would purposely make an unfair report——

Dr. Alexander Wood: Not designedly unfair—I did not mean that.

Dr. Paget: If it was to be supposed that the Committee would make a purposely unfair report, he (Dr. Paget) would decline to serve upon any Committee that might be summoned.

After some observations from Dr. Bennett, Professor Syme, the President, Dr. Quain, and Dr. Storrar, the resolution was put to the meeting and carried. The following was the Committee nominated:—

Dr. Paget, (Chairman)
Dr. Sharpey,
Dr. Parkes,
Dr. Thomson, and
Dr. Arjohn.

Dr. Storrar moved that the Committee be the same as that appointed last year, with the substitution of Professor Syme's name for that of Dr. Christison.

Dr. Andrew Wood: I hope there will be one alteration made at least, because I was chairman of the last Committee; now I will not be chairman of this Committee after the remark that was made to-day.

Dr. Alexander Wood: I hope my friend Dr. Wood does not think I meant to reflect upon his conduct as chairman; it was his extreme ability, and that force of character which always distinguishes him, which shewed itself in every line of that report. (Laughter.)

Dr. Paget: I think it should be known that there was at least one member who worked quite as hard as he.

Dr. Alexander Wood: It never entered my mind to conceive that there was any departure from strict rectitude in the drawing up of that report; but we all know how a man with strong convictions gives a tone to everything he is connected with.

"Returns from the Army Medical Department, from the Medical Department of the Navy, and from the India Office, relative to the examinations of candidates for commissions

in the respective services," were then brought before the Council, and

Dr. PARKES moved that they be received and entered on the minutes.

Dr. STORRAR seconded the motion, and it was unanimously adopted.

The next business on the programme was "Communications from the Colonial Office, and from the Home Office, relative to a Letter addressed by the Chancellor of the University of Melbourne to the Home Secretary."

Communications were then read from the Colonial Office and the Home Office relative to a letter addressed by the Chancellor of the University of Melbourne to the Home Secretary, and the Chancellor's letter (suggesting that the clause requiring twelve months' residence to qualify colonial graduates should be modified) was also read.

Upon the motion of Professor SYME, seconded by Dr. RUMSEY, these documents were ordered to be received and entered on the minutes, and the motion was carried.

Dr. ALEXANDER WOOD trusted that the Council would be prepared to deal in a very liberal spirit with this subject. (Applause.) It was well known that most of the Colonial Universities educated their medical students quite as well as the home schools, instancing in particular the University of Melbourne. Then, with regard to the year's residence in order to secure moral character, he asked what security did they take for the moral character of those students who left the home schools. (Laughter.) The only security was to strike their names off the register if they did anything to deserve such a punishment. Why then take any additional security from colonial practitioners? He thought it much more likely that dishonourable men should leave this country and go to the colonies than that the converse should take place. Under those circumstances, he thought the Council would stand much better with the Government if they showed a willingness to have the law altered so as to give free admission to all those who were properly licensed in the Colonies, and he begged to move a resolution to the effect—"That the communications from the Home Office and the Chancellor of the University of Melbourne be entered on the minutes and taken into consideration on Friday next." Carried *nem. con.*

Sir D. J. CORRIGAN suggested that a copy of the Duke of Buckingham's Bill should be sent to each member of the Council.

Mr. SYME then moved the following resolution:—"That a committee be appointed to consider and report how the various subjects of Medical Education, which have been deemed requisite by the Council, may be taught with most advantage; in what order they should be studied; and how the examinations on them ought to be arranged." He said, Mr. Chairman,—In moving the resolution of which notice has been given, I feel in great fear and trembling; indeed, I should feel bound to offer an apology for undertaking so serious a responsibility, unless that it were from my long experience as a teacher and examiner, I may be supposed to be able to speak with some confidence with regard to the question. The Medical Act which constituted this Council, charges us with three important duties—first of all, to keep a register of all properly qualified practitioners; secondly, to superintend the construction of a Pharmacopœia which shall be sufficient for all three departments of the United Kingdom; and, thirdly, to frame a system of regular Medical Education, so that no admission shall be obtained into the ranks of practice without a due and stated examination. Now the first two of these duties have been discharged, and I believe they have been discharged to the satisfaction of the profession, notwithstanding the objections that have been occasionally taken upon the subject. With regard to the third, we have proceeded most laboriously and anxiously, and I think, as far as the preliminary education of medical men is concerned, we may be considered as having done all we can. Any one comparing the qualifications of candidates now with what they were ten years ago, must be astonished; and, I think, no one can presume to say that the Medical Council have been of no use, if it were for that alone. I say so far as we are concerned all has been done that can be done, because undoubtedly there is something yet to be done—which is to lessen the number, and to bring to more equality, the means which are employed to ascertain the qualifications. There can be no doubt that from the number of those boards before which students are brought, there is too great a variety in the qualifications which are required; but that is a matter over which we have no control. It is for the examining bodies themselves to alter that. It may also appear so with regard to professional education, but I think we have nearly completed all we have to do upon that subject. In our session of last year we agreed upon nearly all the subjects which were to be held necessary. But there are still some points which we have to consider; one of these is with regard to the best way of teaching the different subjects; the second is as to the order in which they should be studied; and the third is as to the best way of conducting the examinations. Upon these three points a great variety of opinion exists in the Council, and if there is great diversity of opinion in the Council there must undoubtedly be very great diversity of opinion out of the Council; and if some agreement can be come to, as to some of the points mentioned by the Council, and communicated to the Profession, great benefit must accrue. I would propose that the Committee be composed not of members who all take the same view of these matters, but of those who take opposite views; they could then compare their ideas and upon some of the points would arrive at a conclusion which would meet with the approbation of the Council, and would go out with its sanction. I now propose to advert shortly to these different points. And first, as to the means of teaching. There are two great errors with regard to teaching. The first is that teaching implies learning, and that learning is the same as committing to memory. The act of learning or acquiring new ideas is an act of the mind, no less essential for the purpose than the acts of digestion and assimilation are for the nutriment of the body; and you can no more make a man learn by the mere statement of facts and opinions, than you can make a man strong by filling his stomach with food. Nevertheless, many teachers forgetting this, believe they are discharging their duty when they set out masses of detail, no sooner heard than forgotten. The predecessor of Dr. Christison in that chair which he now so ably occupies, was a gentleman of great talent and learning, but he was the worst teacher who ever occupied a professor's chair. That gentleman, the late Dr. Duncan, was very kind to me, and allowed me, when but a mere student, to express my ideas with perfect freedom on topics which happened to be under conversation. He would say that he thought the duty of a Medical teacher was to mention everything which it was proper the students should know. He thought the teacher should tell the student all he ought to know, and made no allowance at all for his own powers of observation. I replied to Dr. Duncan that it seemed to me the duty of the teacher was entirely different, that he ought to give the student a general outline of the subject to be studied, to remove the difficulties opposing his progress, and endeavour to call forth all his energies. Those are the opinions which I expressed to Dr. Duncan nearly half a century ago, and I have always maintained them as my idea of the duty of a teacher. Dr. Parkes entertains views of a very different kind; his opinion is that a student should not proceed from generals to particulars, but from particulars to generals; that when he begins to study chemistry he should begin by performing experiments, and when he proceeds to physiology he should begin by looking through a microscope, and when he studies surgery he is to commence by acquiring the names of the symptoms of the diseases most frequent. That is very much the same course as if in the exploration of a new continent, the traveller, instead of ascertaining its situation, its extent, the ranges of its mountains, the rivers flowing between them, and the towns upon their banks, were to sit down upon the sea-shore and commence counting the grains of sand. Dr. Parkes is a great advocate for the tutorial system. I am sorry to differ from Dr. Parkes again on this point, for of all contrivances for obtaining the object in view, the tutorial system is the worst. If cramming is the object you have in view then the tutorial system is the best you can adopt; but if the object is the acquirement by the student of real knowledge, then that system is bad. Dr. Parkes would treat medical students as infants, and supply them with wet nurses. I regard them as men, young men it may be, but still men devoted to their profession and anxious to learn it, and I would take means that they should thoroughly understand each of the subjects recommended, but only up to a certain point. I should not attempt to make them botanists or anatomists, or physiologists, but I would teach what was necessary for the object they have immediately in view, namely, to qualify themselves as members of the medical profession. (Hear, hear, from Dr. Parkes.) I am very glad to find that my friend Dr. Parkes is in accord with me upon

this point. It may be said that this is taking a low and degrading view of the subject, and I may be asked, why not educate up to the highest point upon scientific subjects? But I will remind the Council, although I feel they do not require to be reminded of it, that all that can be got in the way of scientific attainment at College, when compared with the progress that is made by the absolute prosecution of a science—I mean by the concentration of mind and the devotion of individual faculties to a subject, is no more in comparison than the germination of a seed contrasted with the growth of a plant. It puts me in mind of the story which is told of a lady who, when asked what she meant to do with her second son, replied that she was educating him to be a bishop. Now it is just as difficult to bring a boy up to be a medical man as it is to educate him for a bishop. One important thing is to give him the means of learning what is necessary for him in after-life, and then if he be a genius who is destined to attain a great position in after-life, he will have a good foundation to start upon. One way in which science might be promoted with regard to teachers was by connecting it with the honourable office of teaching. Dr. Parkes in his report has complained of the manner in which teaching is generally conducted. In my opinion the reason of that is that schools are too much divided. In this metropolis almost every hospital has its own school, and in the provinces scarcely a large town but has one or more schools of medicine; the consequence being that students are so much scattered about the country, that teaching has come to be thought scarcely worth being the object of any man's ambition, and it is accordingly a well-known fact that throughout this country the great mass of teaching is conducted by men not as a permanent object, or an aim in life, but merely as a step to something better. In Scotland these things are managed more rationally. We have not a single provincial school. We have three great seminaries at Edinburgh, at Glasgow, and at Aberdeen; and professors are appointed—not with any very large emolument, but still with sufficient for men to live upon. It is also considered a post of honour and respect; and when a man is once placed in a Professor's chair, he rarely thinks of leaving it, or making it the stepping-stone for something better; but instead of that he makes it the business of his life. I need only refer to one friend of mine who has held the chair of *Materia Medica* for 40 years, and is teaching now with the same vigour as he did at the commencement of his career. He has a large consulting practice besides; but still he has no intention of throwing up his Professorship, and he is still doing good to the school with which he is connected. The great evil of these small schools of medicine is not only that there is inadequate remuneration for the teachers, but that it is impossible to teach efficiently a small number of students. Both teachers and students feel the want of that stimulating force to their energies which the late Sir William Hamilton has so well called "the magnetism of numbers." Every one must have noticed this; it is notorious that observations which, addressed to a small number of students, make scarcely any impression at all, and are scarcely listened to, would be received with the greatest enthusiasm, when addressed to a crowded audience. I therefore maintain that one of the things which we ought, if possible, to do, is to concentrate the means of instruction, and to abolish the whole of those provincial schools. Upon this question of teaching, I think the Council should put itself into communication with men of experience in teaching, and take the opinions of the chief chemists and anatomists (hear, hear); we should then consider what is the proper amount that could be fairly and thoroughly instilled into the mind of the student; and the next point would be as to the order of study. Those members of the Council who have not attended very particularly to this subject, may imagine that upon this point they are all agreed. Speaking generally, that may be so; but there is yet much to be done. We have at present so arranged the regulations of study, that the most convenient time for commencing a medical course is considered to be not the winter, but the summer. The custom of Edinburgh is to attend lectures upon botany and natural history in the summer. In my opinion, the proper course would be to attend botany and chemistry at that season. When I was a student, there were very excellent three months' courses of chemistry in summer, which I attended, before going through a more lengthened course in the winter. Undoubtedly, nothing can be better for a mind commencing its studies, practically a blank, than the study of botany. It requires little effort; the student easily understands it, and likes it. But with regard to natural history, how can a student comprehend, for instance, comparative anatomy before he has studied the anatomy of the human body? It is impossible for anybody to understand the one before the other. I asked my colleague, the Professor of Natural History, the other day, whether he had many beginners in his class, and he told me that it was principally composed of them. My friend, Dr. Parkes, holds that the student should know nothing of surgery during the first two years of study. Now when you come to consider the importance of surgery, and when you are told that half of the student's time must elapse before he commences it, I think you will agree with me that such a course is most inexpedient. I think some good might ensue if the opinion of the Council upon these subjects were made known. I now come, with fear and trembling, to my third point; and I say so because, with the greatest desire to stand well in the opinion of my friends around me, I have a painful foreboding that I am about to give expression to some ideas which will be repudiated by many, and regarded as unorthodox and bad. It has been said that nothing has so much improved education as the division of examinations into subjects. In the school with which I am connected there are four examinations; first, botany, chemistry, and natural history; second, anatomy, physiology, materia-medica, and pathology; third, surgery, physic, midwifery, and medicine; and finally, clinical examination. The consequence is that every year the student is professing to be studying one thing while he is preparing to be examined in another; the effect of which, not upon his memory, but with regard to his real learning I need scarcely ask you to imagine. He is unable to keep his mind in that healthy and vigorous state which is necessary for the true acquisition of knowledge. I must say, therefore, I entirely approve of class examination, where the student is examined upon the subject of his study. I entirely object to examining him in one year upon the matters which he has been studying in the previous year. Some men say that a great advantage is gained by allowing the student to disembarrass his mind of an amount of information which would interfere with subsequent studies. If the object of medical education is to pass through difficult and complicated examinations, then I agree with this view; but then the knowledge is no sooner acquired than it is forgotten. I have had experience in these matters, and I know in many cases it is the custom of students when they have passed through a given examination to do exactly what the lawyer who has got through his case, is in the habit of doing—throw it off their minds and apply themselves to something else. I have examined students who had passed through previous examinations with great credit, and were just about to take the highest degrees in medicine, and I have found some of them lamentably ignorant of some of the commonest principles of anatomy. It is said the benefit of dividing examinations is that it is impossible for the student to retain so many subjects in his mind over a period of four years. My desire would be to see the student examined at the end of his course. I know it is said that the student cannot carry all that he has to learn in his mind. Why, do we not all desire that he should carry his knowledge through his professional life, which would, perhaps, extend over forty or fifty years, and during which time he would undoubtedly require it? And is it to be said, then, that at that early period of life, when memory is most vigorous, he cannot retain it for four years, and that, therefore, he must be examined by instalments, and be allowed to throw away his learning portion by portion after being crammed up to the very utmost for the mere purpose of passing this wonderful examination? I do not say this from a mere theoretical point of view. I have been now for many years very intimately acquainted with the feelings and wishes of students, having endeavoured to ascertain the opinions which they hold. In conclusion, I hope the members of this Council will give an expression of their opinion upon this subject. I know that that opinion is divided, and it is upon that ground that I move for the appointment of a Committee.

Dr. Andrew Wood seconded the motion. It was a subject of the greatest importance. If Dr. Parkes was right, Mr. Syme must be quite wrong in his conclusions; and if there were such a disagreement amongst the members of the Council, it was clearly desirable that the matter should be referred to a Committee. They would all be aware that there was in London an association of medical teachers who

were taking up this subject, and who seemed to be quite satisfied that there was something radically wrong in the method of teaching and examining, and that there was a necessity for some change. Some of the medical journals said, Why do the Medical Council take this subject up? They should wait and be a court of review upon what the association of teachers suggested. But he (Dr. Andrew Wood) maintained that it was the duty of the Council to take the initiative, and to endeavour to arrive at the right and wrong of the matter. He would have the subject thoroughly investigated, and would call evidence, not only from the teachers connected with the association, but he would take the opinion of every teacher in the country, and then frame a report upon the result of such investigations. He believed that such a report circulated amongst the licensing bodies, and throughout all the schools in the country, above all by means of the Medical Press to the whole profession, must be the means of provoking such discussion on the subject, as would end in such regulations for improving medical education, as to its method, as to its order, and as to the proper tests to be applied after it had been gone through, as would materially elevate the medical profession of Great Britain.

Sir D. J. Corrigan proposed an amendment. They were all of one mind in desiring to improve the education of the profession, but they differed upon the means for obtaining their common object. His amendment was "That a Committee be appointed to consider and report in what order the various subjects of medical education which had been deemed requisite by the Council would be attended with most advantage; and how the examinations upon them should be arranged and conducted." Instead of appointing a Committee for three objects, as Mr. Syme suggested, he would suggest two only, for he considered that the first of those propositions suggested by Mr. Syme involved a question upon which no uniformity of opinion could be hoped for. On the other two subjects, if they could not approach to any definite agreement, they might do a great deal of good by informing students in what order they could best study the subjects of their education, and also by giving their opinion as to how the examinations ought to be conducted. It was necessary to talk openly and broadly upon this subject. It was notorious that the plan adopted now-a-days was to send a young man to a grinder or tutor to "put" him into the medical profession, and that the tutor did not follow the course which was best for the young man, but rather the course which was best for his own pocket. It was no use sending a youth to learn algebra before he had mastered the first rules of arithmetic; and nobody dreamt of putting him to learn poetry before he understood grammar. But in the medical profession inconsistencies quite as great were committed; and he could mention an instance within his own knowledge, where a young man had been taken by a grinder to study hospital practice, when he did not know the difference between the tibia and humerus (a laugh). He certainly regarded with something approaching to terror the suggestion of Dr. Andrew Wood, that in order to arrive at the truth of this matter, they should not only have the teachers belonging to the association before them, but all the teachers of medicine and surgery in the United Kingdom; such an infliction would put an end to the Committee altogether: they would become nothing better than "subjects," in a very short time—it would be impossible to stand it (laughter). Mr. Syme had objected, very strongly, to the system of previous examinations which existed throughout the kingdom; but the illustration which he gave of the ignorance of a student who had passed an examination in anatomy appeared to him (Sir D. J. Corrigan) rather to prove that the examination in anatomy had been very badly conducted than anything else. Would it be impertinent to ask whether that examination had been conducted in Edinburgh or not? (Laughter.) Mr. Syme also said it was necessary to abolish in a great measure the provincial schools, and concentrate the teaching in one grand school for each of the three kingdoms. That was contrary to all the principles which guide us in the present day; for it was found that competition was the very soul of enterprise. The illustration which he had adduced of a distinguished colleague in Edinburgh who had held a professorship for upwards of forty years was an unfortunate one, for, unless the professor was an exception to ordinary mortals, it was only under a system of monopoly that students could be got to attend the lectures of a man so advanced in years. Mr. Syme had grown very eloquent upon the advantage of numbers, and his words seemed to imply that the powers of the lecturer were drawn out by the applause with which some great principle of Medicine or anatomy would be received from a crowded lecture hall. (Laughter.) What was more important was that the examinations of students should be practical, and should test their knowledge not of words but of things. If the substances that the student would have to use in Medicine were laid on the table; if he were required to show his powers of investigation with the microscope by a practical experiment; if the tests in Medical Jurisprudence or Toxicology were required to be made; if he were brought to the bedside and required to examine a patient—then there would be an end of the abominable system of "cramming." The truth was that the fault lay not with the students or with the crammers, but with the licensing bodies, every one of which had a representative present. With these observations he proposed the amendment already read.

After some further remarks from Dr. Paget and Dr. Risdon Bennett, the debate upon this question was adjourned upon the motion of Dr. Parkes.

Second Day.—Thursday, June 25.

This afternoon the Council resumed the adjourned debate on Mr. Syme's motion.

Dr. Parkes considered that if the Council did not at once proceed to appoint a Committee to inquire into the important subject of Professional education they would find that bodies outside the Council would initiate some steps, and thus leave them in a position which they ought never to occupy. Proceedings on such a subject should come from the Council to the Profession, not from the Profession to the Council.

Dr. Thomson supported the same view, considering that a revision of the general modes of education was among the most important duties of the Council.

Mr. Hargrave thought the Council had no power to enforce the recommendations of the Committee, and it was therefore useless to reopen the question.

Dr. Sharpey would vote for the motion if the Committee were allowed to continue their investigations during the interval between this and the next session.

Dr. A. Smith approved of the course recommended by Dr. Sharpey.

The debate was then adjourned for the consideration of the case of Dr. Wm. Macdonald, of Ewing-place, Argyle-street, Glasgow, who had been summoned to appear before the Council.

Dr. Macdonald not appearing, his case was proceeded with in his absence. Mr. Ouvry, the solicitor to the Council, being present, the President suggested that, as certain of the facts to be brought forward dealt with individuals not present, and who had not been summoned, the reporters should be requested to withdraw.

To this Dr. Alexander Wood was vehemently opposed. They were there to pronounce judgment in this case; that should not be done with closed doors.

Dr. Storrar thought that, except the legal adviser of the Council stated that the Council would be incurring risk by publishing the case to the world, the reporters should be permitted to remain.

Dr. Andrew Wood was also opposed to the removal of reporters, and thought there was nothing in the case necessitating such a step.

Mr. Syme was also of this opinion.

Mr. Hargrave proposed as a motion that the reporters do withdraw, in which he was seconded by Mr. Rumsey.

Sir D. Corrigan protested against such a procedure, and asked how they could face the world if this case was decided in private, and ended by saying that, if the reporters went, he would go too.

Dr. Acland thought it hard that the Council should not be allowed to hear the opinion of their legal adviser in private.

Dr. Risdon Bennett thought the doctrine an erroneous one, but suggested that the inquiry into the case should be made in private, and the judgment in public.

Dr. Andrew Wood pointed out that the preliminary inquiry was complete; they were there to try the case, and he suggested that the standing orders relating to the removal of names from the Register be read.

This being done, Dr. Paget suggested that they might hear this case in public, and deliberate, if necessary, in private.

Mr. Hargrave's motion, being put from the chair, was negatived almost unanimously, only three members voting in its favour.

Dr. Macdonald was accused on three separate charges, the essential being that he had offered to procure for money the degree of Doctor of Medicine from the College of Medicine, Pennsylvania, or from the University of Giessen. The history of the case was given how a Welsh druggist was said to have procured such a diploma; how a gentleman wrote making inquiries of Macdonald as to the mode of procuring such another; Macdonald's reply, and the inquiries made by the Branch Council for Scotland, as well as the action of the General Council in the matter. The documents relating to the case were somewhat voluminous.

The result was that Dr. Macdonald was declared guilty of infamous Professional conduct, and it was ordered that his name be struck off the Register.

This resolution was effected by three votes:—1st. That he be declared guilty of infamous conduct as a Professional man. When this was put to the vote the numbers for and against were equal—9 to 9; and the President gave a casting vote against him. 2nd. That his name be struck off the Register. For this there were 13 votes for, and 7 against. 3rd. That a copy of the minutes of these proceedings be sent to Dr. Macdonald. This was carried *nem. con.*

GENERAL CORRESPONDENCE.

NAVAL MEDICAL INJUSTICE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The Admiralty has illogically indorsed the conduct of Commodore Randolph by permitting him to remain senior officer at the Cape of Good Hope, though disapproving of his removal of Dr. Stirling from the appointment he held at the Naval Hospital, to which office Dr. Stirling does not return.

My Lords have made this discovery, that when Dr. Stirling was summoned to Commodore Randolph's official residence, the insulted officer's verbal protest, under the most provoking treatment, was not so cringing, so humble, as could be wished—that he was disrespectful! Does it occur to my Lords that respect is reciprocal—that the class feeling of which Dr. Stirling is the victim will not bring candidates for her Majesty's ships and vessels of war?

I am, &c. VINDEX.

THE ADMIRALTY LETTER TO DR. STIRLING.

Sir,—I have laid before my Lords Commissioners of the Admiralty your letter of the 21st inst., requesting some improvement of your present position in the service as a compensation for the loss of your appointment at the Cape of Good Hope, and I am desired by their Lordships to point out to you that although they have disapproved of the act of Commodore Randolph in sending you to England without awaiting their Lordships' sanction, they are by no means satisfied that your conduct towards the Commodore was proper or respectful, but, on the contrary, the statement of that officer is corroborated by that of Dr. Wilson, who writes in reply to some question he is desired by the Commodore to answer: "Dr. Stirling did deny your right to send for him, in that he said he did not recognise your power to send for him when you liked." And again, Dr. Wilson writes: "I do not consider Dr. Stirling's conduct was as courteous or polite as I should wish in myself placed under similar circumstances."

My Lords have shown by the steps they have taken, in allowing your twenty-five years' service to be completed on the books of the *Fisgard*, their desire that you should not be treated harshly; but the circumstances of the case do not allow of your request that a substantive improvement of your present position should be granted. H. G. LENNOX.

Admiralty, May 28, 1868.

OPTIC NEURITIS, OR ISCHÆMIA PAPILLÆ, IN PYÆMIA.

LETTER FROM DR. T. CLIFFORD ALLBUTT.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your journal of last week, Dr. Hughlings Jackson writes to ask whether other ophthalmoscopic observers agree with him in reporting changes of the optic disk in pyæmia. He appears from his expression "swollen disks" to have noticed the condition I have ventured to call ischæmia papillæ. I entirely agree with him as to the occurrence of ischæmia papillæ or of optic neuritis in pyæmia, as in other diseases of like character where meningitis may occur. I have little hesitation in saying that meningitis was present in the cases Dr. Jackson records. He himself observes that the state of the disks was like that which he had observed in a case of tubercular meningitis, and in a case of syphilitic disease of the base, which again was probably more or less meningitic in character.

In support of the coexistence of optic neuritis or ischæmia papillæ with pyæmia, and in support of the proposition that meningitis is the immediate cause of these states, I will bring forward a case which came recently under my notice, and for which I am indebted to Dr. Crichton Browne, of the Wakefield Asylum, as I am indebted to his great and untiring courtesy for very much more of my pathological and other experience. A patient recently died in the Wakefield Asylum from pyæmia, and Dr. Browne, who was present at the autopsy, was kind enough to note particularly for me the state of the optic nerves. Scattered pyæmic abscesses were found in some numbers in both lungs, a number of minute abscesses in the kidneys, blood-stains upon the heart and valves, and other clear evidences of pyæmic blood-poisoning. There had been much delirium before death, and very marked meningitis was found about the base of the brain. The optic nerves also were found to be very vascular and diminished in consistency, the chiasma and branches were affected up to the eye, and backwards the same changes were found in the tracts and up to the corpora quadrigemina. Every case of erysipelas or pyæmia with delirium, therefore, should be examined with the ophthalmoscope, as in many cases by it alone the presence of meningitis can be detected. I have already, however, expressed in your journal my sense of the great value of the ophthalmoscope in chronic and latent meningitis, so that I have no excuse for occupying more of your space on this question. I am already, I fear, too great a trespasser, and much that I have to say further upon it I must reserve to a more fitting occasion.

I am, &c. T. CLIFFORD ALLBUTT.

38, Park-square, Leeds, June 17.

CHLOROFORM IN POISONING BY STRYCHNIA.

LETTER FROM MR. F. P. PHELPS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your number for May 9 I notice a case of strychnia poisoning successfully treated by chloroform. Its perusal reminds me of a somewhat similar case I had under my charge when House-Surgeon to the Northern Hospital, Liverpool, five years ago. The subject was a girl about 14 years of age, maid-of-all-work, who, owing to the cruelty of her mistress, had deliberately purchased and swallowed threepennyworth of rat's bane in a bottle of ginger-beer bought for the purpose. Soon after taking the same, the usual symptoms of strychnia poisoning came on, when an emetic was given her by a neighbouring Surgeon, which caused her to vomit, but not very freely. She was then taken at once to the Northern Hospital, and as the symptoms were assuming an alarming character and the opisthotonos extreme, chloroform was at once administered, with marked remission of symptoms. This was, almost without interruption, repeated for some hours, as it was only so that relief could be obtained. But the fact of the chloroform being administered is not the point to which I would call the attention of your readers. It is this—that while the patient was under its influence we succeeded in passing the stomach-pump for the double purpose of washing out the stomach (which process was repeated three or four times) and injecting beef-tea and brandy, and thereby supporting the patient's strength. But for this plan being adopted, I firmly believe she would not have survived. On investigation it was found that a similar packet to the one taken contained one grain of strychnia. The patient was under observation for two or three days, and was discharged cured and truly thankful that her rash act was not attended by more serious results.

I am, &c.

Exeter, May 25. F. P. PHELPS, M.A. Oxon.

THE LATE SIR JOHN LIDDELL, C.B., F.R.S.—The will of this gentleman, the late Director-General of the Medical Department of the Royal Navy, has just been proved, and the personalty sworn under £5000.

THE

LONDON AND PROVINCIAL POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A MEETING of the London and Provincial Poor-law Medical Officers' Association was held at the Freemasons' Tavern on Wednesday, June 24. The chair was taken by W. J. Clement, Esq., M.P., and the room was well filled with Medical men from London and the provinces. Amongst those present were, Dr. Richardson, F.R.S., Dr. Rogers, Dr. Fowler, Mr. Nunn of Middlesex Hospital, Mr. Lord, Dr. Gibbon, Dr. Colborne, Dr. Drysdale, Mr. Prowse, Mr. Fleischmann (Cheltenham), Mr. Griffin, Mr. Bennett, Mr. Platt, etc., etc.

The CHAIRMAN said he had always felt interest in all that relates to our Profession, and had closely observed the labours of Mr. Griffin and other gentlemen. He regretted that so little improvement had been effected, but looked to the growth of a healthy public opinion to overcome opposition. The present time, the eve of an election, was a good time to hold such a meeting, as pressure may be put upon the candidates at the coming election. The following were the points to which he wished to call attention:—The establishment of a Central Board in which a larger Medical element should be introduced; the supply of medicines by the guardians—in all large towns drugs and appliances should be found by the guardians. Permanence of appointment is absolutely necessary if Poor-law Medical officers are faithfully and honestly to perform their duty. No Poor-law Medical officer should be removed without grave reasons for it, and after open public inquiry.

Dr. ROGERS alluded to the labours of Mr. R. Griffin and the prospects of Poor-law Medical reform. The question was, how can the one million and a quarter who annually fall sick be best dealt with? I have (said Dr. Rogers) invited you here to-day, feeling sure that you will unite to strengthen the hands of the well-wishers of the sick poor and their Medical attendants. The resolution that I propose is—"That this meeting is of opinion that it would be conducive to the best interests of the State that the Poor-law Board should consist of a definite number of responsible members; and, as the present arrangements are unsatisfactory, that the control of all Medical arrangements, including the fixing of the salaries of the Medical officers, should be immediately subject to a special Medical Department." Mr. Rogers then proceeded to review and criticise the present constitution and working of the Poor-law Board, and the present system of Poor-law Medical relief. He urged upon the Profession unanimity and the use of influence at the coming election.

Dr. COLBORNE, of Chippenham, said: Poor-law Medical officers are miserably underpaid and overworked. Now it is proved by returns that a million patients are treated annually. The salaries for attending them amount to £200,000 a year, so that the Poor-law system is a club at less than 10d. a head; whereas ordinary clubs of working men pay not less than 2s. 6d. per head. Pauperism means short wages. The whole of our rural labouring population depend on pauperism; the labourers in the direct and immediate employ of the rich come upon us for themselves and families as pauper patients, receive pauper mutton, and are buried in pauper coffins. The system thus interferes with the labour market, depressing wages and lessening the labour power of the country. The poor man argues that it is useless to be provident, as it only saves the parish. I heartily support the resolution.

Mr. NUNN, of Middlesex Hospital, said that his sympathies were with the Poor-law Medical officers, as many of them were his friends and old pupils; but, that his sympathies might not lead him too far, he had asked the opinion of a friend, who was a guardian and had great experience. This gentleman wrote to him:—"I have always thought the Medical officer is overworked and underpaid." The Medical officer should be paid by the state. Medical aid should not be too freely bestowed, as it pauperises and injures the private Practitioner. It is, however, difficult to draw the line where Medical orders should be given or withheld. As to salaries, they should be fixed by a comparison of the number of cases in a given time, and many arguments may be adduced in favour of payment by case.

Mr. BALDING, of Royston, here explained that, in consequence of a representation made by the Medical officers of the Union, arrangements had been entered into to pay by case. A list of permanent paupers was made out, and 3s. per head for them allowed. For other orders 10s. 6d. for each order was allowed, the order including wife and family. The system worked well, and a much smaller number of orders was issued than when payment was made by salary.

The resolution was then put by the Chairman and carried unanimously.

Mr. PROWSE, of Amersham, proposed the second resolution—"That this meeting is of opinion that it is desirable that in the second article of the General Order of the Poor-law Board, dated May 25, 1867, the words referring to residence within the district be omitted; and that since the words 'or be removed by the said Board' give unlimited or at least too large a measure of arbitrary power to the said Board, these words either be expunged or be altered to 'or be removed by the said Board after a public inquiry, of which due notice shall be given;' and that some means be adopted to insure the uniform carrying out of the general order so altered throughout the whole country."

The object of the Poor-law Board in requiring residence in a district was, of course, the convenience of the poor, but it occasionally happened that a few yards out of the district was much better for the Medical man, and not inconvenient to the poor; and in these cases the fixed law pressed very grievously. As long as the salaries of Poor-law Medical officers continue to be what they are, the place of residence must be determined by private practice rather than by poor-law appointments.

Dr. RICHARDSON, F.R.S., moved the third resolution—"That this meeting is of opinion that it is desirable to insert clauses in the Poor Relief Bill now before Parliament:

"(*a*) To give effect to the opinion of the Poor-law Board, that the providing of medicines by guardians is an expedient course;

"(*b*) To make Clause 38 of the Metropolitan Poor Act 1867, compulsory on the Poor-law Board;

"(*c*) To enable the Poor-law Board to direct the formation of dispensary districts in the larger provincial towns, etc., as and when they shall think fit."

The Poor-law Board itself had recommended that guardians should supply medicine, but the clause was permissive only, and, applying only to the metropolis, was most limited in its application. The Metropolitan Poor Act of 1867 was good and beneficent in principle, but in a political and practical sense it was a compromise between law and no law; it was legislation without power. The plan of permits is illogical. Here is a permissive Act allowing boards of guardians to supply medicines to the poor. What is the consequence? The guardians of Kensington did actually, in November last, pass a resolution to carry out this rule. They asked the consent of the Poor-law Board. After six months' delay the Board refuses to consent to it, and declares the plan illegal. It might be competent, says the Board, for the guardians and their Medical officer to give up their engagements to each other, and to enter into new ones; but this must be done separately for each officer, and the new engagement submitted to the Board. The Act is a pretence; it offers what it does not give, and that *may* will have to be converted into *must*. Some Medical officers are afraid that when the guardians are compelled to provide medicines, salaries will be diminished. The Dispensary system has been tried in Ireland; it saves the time of the Doctor and patient alike. Dr. Richardson concluded his address by an eloquent comparison of the rich man and the poor when Medical aid is required and death at hand.

Dr. DRYSDALE seconded the resolution. The salaries of Medical officers were too low. So intolerable was their position that no less than from 200 to 300 vacancies annually occurred in their ranks. In many unions the mere medicines would absorb the whole of the salary. Appointments should be for life, with retiring pensions. All drugs should be furnished by guardians.

Mr. LORD was opposed to this resolution. He deprecated abuse of the Poor-law Board, and considered that body desirous of acting uprightly. He also thought that more injury was done to the Profession by the gratuitous services of officers of dispensaries, the out-patient system of Hospitals, etc.

Dr. SEPTIMUS GIBBON concurred with Mr. Lord, and thought that if medicines were supplied by guardians the salaries would be very much diminished. He was afraid, if Poor-law Medical officers were thus placed upon the same footing as Hospital and Dispensary Surgeons, that, like them, they would eventually be asked to give their services for nothing.

The third resolution was then put and carried.

At this stage the Chairman was compelled to leave, and the chair was taken by Dr. Rogers.

Mr. GRIFFIN (son of Mr. Rd. Griffin, of Weymouth) then rose, and explained that his father found his health failing, so that he could no longer maintain the activity and energy of the Provincial Poor-law Medical Officers' Association. He earnestly desired, therefore, that provincial and metropolitan associations should be united, and invited the meeting to pass a resolution to that effect.

Dr. ROGERS put such a resolution, and it was carried, whereupon Mr. Griffin handed to Dr. Rogers a cheque for £50, the funds of the provincial societies.

Mr. FLEISCHMANN, of Cheltenham, proposed that the resolutions passed at the meeting should be forwarded to the workhouse infirmaries and the British Medical associations, and that their earnest assistance and co-operation be requested.

After some discussion, this resolution was seconded and carried.

The fifth and final resolution was then proposed and carried —"That a petition embodying the foregoing resolutions be drawn up and signed by the Chairman on behalf of the meeting, and presented to both Houses of Parliament, praying for a hearing by a special committee of the House of Commons."

This resolution was supported by a gentleman from Northumberland in a highly humorous and able speech, and the proceedings terminated with a vote of thanks to the Chairman.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC IN IRELAND.—TRINITY TERM, 1868.—The following candidates passed the examination for the degree of M.B., or, in the case of non-graduates, for the licence in Medicine, held on June 19 and 20. The names are arranged in the order of merit, with the percentage answering of each candidate :—

	Per cent.
Henry Fitzsimons, B.A.	85
Edward W. Collins, B.A., ex-Medical Scholar	84
John William Moore, B.A., Scholar of Trinity College	83
Edmd. W. F. Frost	80
John Barton, B.A., Medical Scholar	68
Richard Bookey, B.A.	68
James R. M. Murphy	67
David Cahill, B.A.	64
Francis Ed. Clarke, B.A.	63
George J. Mackesy, B.A.	61
James W. Brady, B.A.	61
Frederick Taylor, B.A.	60
Francis Jones, B.A.	59
Herbert J. Faussett, B.A.	59
Charles R. Whitty, B.A.	58
John W. W. Nason	57
Wm. F. Murray, B.A.	57
Frederick A. Smyth	56½
Joshua R. Minnitt, B.A.	54
Henry Commins	53
William J. Weldon, B.A.	51
Francis Peirce, B.A.	50
Wm. H. Bradshaw	47
Charles E. Fitzgerald, B.A.	43
Robert W. Biddulph, B.A.	41

Examination for the degree of Master in Surgery, held June 22 and 23, 1868 :—

	Per cent.
Henry Fitzsimons	73
John William Moore, Scholar	57
Herbert J. Faussett	48½
William J. Weldon	47
David Cahill	45
John Barton, Medical Scholar	44½
Horatio E. Maunsell	43½
Frederick Smyth	41
Charles E. Fitzgerald	30
Francis Jones	28½
William F. Murray	37½
Charles R. Whitty	37
Nesbitt Browne	4

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 18, 1868 :—

Baxter, Evan Buchanan, King's College Hospital.
Gent, George, 110, Adelaide-road, N.W.
Jay, Henry Mason, Chippenham, Wiltshire.
Rendle, Richard, 40, Newington-causeway.
Snow, Herbert Lumley, Queen's Hospital, Birmingham.
Sommershield, Oscar Frederick William, Christiana, Norway.

As Assistants in compounding and dispensing medicines :—

Bird, Robert, Reading.
Gostling, George James, Diss.
Gostling, John Henry, Halesworth.

The following gentlemen also, on the same day, passed their First Examination :—

Evans, Thomas Walter, Guy's Hospital.
Leland, John Smallman, Dublin Hospital
Rees, Howell, University College Hospital.
Roberts, Arthur, Manchester Hospital.

NAVAL AND MILITARY APPOINTMENTS.

25th Foot.—Samuel Stacy Skipton, M.D., Staff Surgeon, to be Surgeon, vice Edward Tonch, M.D., appointed to the Staff.

71st Foot.—David Cullen, M.D., Staff-Surgeon, to be Surgeon, vice Surgeon Major George Thomas Galbraith, M.D., who retires upon half-pay.

GALBRAITH, GEORGE THOMAS, Surgeon Major, who retires upon half pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

BENGAL ARMY.—To be Surgeons-Major: Surgeon Robert Kempt Buckell, November 20, 1867; Surgeon John Charles Collins, M.D., December 25, 1867. To be Surgeons: Assistant Surgeon Henry Walter Bellew, November 11, 1867; Assistant Surgeon David Boyes Smith, M.D., November 28, 1867; Assistant Surgeon Edward John Gayer, January 2; Assistant Surgeon James Howard Thornton, M.B., January 9.

MADRAS ARMY.—To be Surgeons: Assistant Surgeon Benjamin William Williamson, M.B., January 30; Assistant-Surgeon George Bidie, M.B.; Assistant-Surgeon John Grossett Reid, M.D.; Assistant Surgeon John Henderson, M.D.; Assistant-Surgeon Hamilton McEilheron Ross, M.D.; Assistant-Surgeon Charles Thick Eves; Assistant Surgeon James Sadleir Ridings, M.D.; Assistant Surgeon James Joseph Heffernan; Assistant-Surgeon David William Trimnell, February 20.

BOMBAY ARMY.—To be Surgeons-Major: Surgeon George Frederick Hughes Brown, February 5; Surgeon James Gilbert, March 24. To be Surgeons: Assistant Surgeon John Mennie; Assistant Surgeon Christopher Joynt, M.D.; Assistant Surgeon William Edward Cates; Assistant Surgeon Andrew Murkett Bloomfield; Assistant-Surgeon John Cruikshank, M.D.; Assistant-Surgeon Henry Courtney Kingstone, M.D.; Assistant-Surgeon Robert Clark McConnell; Assistant Surgeon Charles Kelway Colston; Assistant-Surgeon Chas. Frederick Ogilvie, M.D.; Assistant-Surgeon Edmund Pulter Burrowes; Assistant-Surgeon William Henry Colvill, February 20.

Her Majesty has been pleased to permit the undermentioned officer to resign his commission:—Assistant-Surgeon David Arthur Kerr, M.B., Madras establishment.

BIRTHS.

BROWNE.—On June 20, at the West Riding Asylum, Wakefield, the wife of J. Crichton Browne, M.D., of a daughter.

HAMMOND.—On June 17, at Gloucester House, Fellows'-road, Eton-park, N.W., the wife of Dr. Hammond, of a daughter.

HASTINGS.—On June 22, at Liverpool Lodge, Brixton Hill, the wife of Hugh Hastings, Esq., M.D., of a daughter.

LAKEN.—On June 21, at Sutton Coldfield, the wife of James Henry Laken, M.B., of a son, stillborn.

MURRAY.—On June 19, at 8, Grosvenor-terrace, Rathmines, Dublin, the wife of Wm. Sim Murray, Esq., M.B., Surgeon 66th Regiment, of a son.

SCOTT.—On June 15, at Rombald House, Ilkley, the wife of Thomas Scott, M.D., of a daughter.

MARRIAGES.

JOBLSON—HOOPER.—On June 18, at Chiswick, Robert Lloyd Joblson, Esq., M.R.C.S., of Hornchurch, Essex, to Cecilia, only surviving daughter of James Hooper, Esq., of Chiswick-cottage, Middlesex. No cards.

MABERLEY—MABERLEY.—On June 18, at St. John's, Worthing, George Frederick Maberley, M.R.C.S., of Hillside, Godalming, to Eliza Louisa, second daughter of the late Rev. Charles Hensley Maberley, incumbent of Owlesbury, Hants.

MOORE—ATKINS.—On June 18, at the parish church, Queenstown, by the Rev. John Penrose, Dr. George Moore, Surgeon Royal Navy, second son of the late James Moore, Esq., of Drumbadmore, in the county of Fermanagh, to Louisa Pettitot St. Leger, eldest daughter of the late Major St. Leger Atkins, of Water-park, county Cork.

OLDHAM—PIGOU.—On June 18, at the Church of St. Mary Magdalen, St. Leonard's-on-Sea, Henry Hugh Oldham, Esq., Captain 48th Regiment, only son of Henry Oldham, Esq., M.D., of Blackrock, Bickley, Kent, and of 46, Finsbury-square, London, to Ella, eldest daughter of the late Arthur Pigou, Esq., Bengal Civil Service.

SALMON—CHURCHWARD.—On June 17, at the Parish Church, Stoke St. Gabriel, George Salmon, solicitor, Cardiff, second son of — Salmon, Esq., Surgeon, Thornbury, to Mary Ann, youngest daughter of the late John Churchward, Esq., Hill House, Stoke St. Gabriel, Devon. No cards.

DEATHS.

BRIGHT, ADA CONSTANCE, fifth child of John Meaburn Bright, M.D., at 1, Westbourne-villas, Forest-hill, Kent, on Sunday, June 21, aged 4 years.

CRAIG, ROBERT, Surgeon, Caverhill, late of Peebles, at 13, Manor-place, Edinburgh, on June 16. Friends will kindly accept this intimation.

FENWICK, JAMES T., M.D., third son of the late James Fenwick, Esq., of Longwitton, at Bolton Hall, Alnwick, Northumberland, on June 15, aged 69.

RUTHERFORD, GEORGE SHAW, M.D., R.N., at 23, Devonshire street, Portland-place, on June 17, in his 82nd year.

POOR-LAW MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the last census.

RESIGNATION.

Manchester Tuesday.—Mr. C. H. Braddon has resigned the Cathedral District; salary £170 per annum.

APPOINTMENTS.

Hackney Union.—James W. Booth, M.R.C.S.E., L.S.A., to the Hull-Lossfield South District.

Lewisham Union.—William Davies, M.R.C.S.E., L.S.A., to the Central District and the Workhouse.

Newcastle Union.—Alan Wilkinson, M.R.C.S.E., L.S.A., L.R.C.P. Edin., to the Shatcastory District and the Workhouse.

UNIVERSITY OF CAMBRIDGE.—SCHOLARSHIPS AT SIDNEY SUSSEX COLLEGE.—There will be an examination at this College, on Wednesday, October 7, open to all students who have not begun to reside in the University, when (provided fit candidates present themselves) the following Scholarships will be filled up:—Two for classics only, of the value of £40 per annum each; two for mathematics only, of the value of £40 per annum each; two for natural sciences (heat, electricity, chemistry, geology, anatomy) or mathematics, of the value of £40 each; one or more Johnson exhibitions, of the value of £32 per annum each. Two Scholarships may be held by the same person, and each will be tenable for three years at least, or until promotion to another of greater value. All candidates will be expected to show a fair knowledge of the set subjects in classics, and also of arithmetic, the early part of algebra, and first three books of Euclid. The books recommended by the Examiners for the Natural Science Scholarships are—In heat and electricity, Ganot's Physics. In chemistry, Fownes; Church and Northcote's Chemical Analysis. In Geology, Lyell's Principles and Manual. In Anatomy (human osteology and general anatomy), Gray's Anatomy; Holden on the Bones. The names of candidates must be entered on the College boards on or before October 1. Any further information may be obtained of the Tutor, the Rev. J. C. Williams Ellis. Candidates must present themselves at the College Hall, on Wednesday morning, October 7, at 9 o'clock.

ROYAL COLLEGE OF SURGEONS.—At a special meeting of the Council of this Institution on Thursday last to elect an examiner in the vacancy occasioned by the resignation of Mr. James Luke, F.R.S., the choice of the Council fell on Mr. Samuel Armstrong Lane, the senior Surgeon and Lecturer on Clinical Surgery at St. Mary's Hospital. We have heard on good authority that another vacancy in the Court of Examiners will shortly be announced, caused by the resignation of Mr. John Flint South. The event is likely to take place after the present session, and previous to the commencement of the collegiate vacation. Mr. South has done good service to the College, having, according to the Calendar, been elected a member of the Council in 1841, of which he is one of the two life members, the other being Mr. Joseph Swan. In 1848, Mr. South was elected a member of the Court of Examiners, and has twice filled the President's chair—viz., in 1851, and again in 1860. It is stated that Mr. South will at the same time resign the chairmanship of the Board of Examiners in Dental Surgery, retaining only his seat as a councillor, and affording his ever-changing colleagues all the benefits of his extended collegiate and general experience.

KING'S COLLEGE.—The distribution of prizes and scholarships in the Medical and other departments of King's College takes place next Friday, July 3, at 4.30. The Archbishop of Canterbury presides. His Grace will also present the testimonial to Dr. Jelf on the same afternoon.

ST. THOMAS'S HOSPITAL.—It has been thought that the rebuilding of the Hospital afforded a good opportunity to the old pupils to testify by some special gift their attachment to the place of their education. A meeting to consider the matter was held at Mr. Whitfield's on the 18th inst., Mr. South in the chair. A Committee composed of Drs. Barker, Saunders, Carpenter, Clapton, Messrs. South, Le Gros Clark, Stone, Whitfield, and Solly, with Dr. Sedgwick, of 2, Gloucester-terrace, Hyde-park, as Honorary Treasurer and Secretary (who will be glad to hear from old students), was appointed to consider the matter and report thereon to a general meeting to be convened hereafter. Several plans have been suggested. The subscription is not to exceed two guineas.

MEDICAL BENEVOLENT FUND.—ELECTION OF ANNUITANTS.—At a special meeting of Committee, two vacant annuities of £20 were filled up as follows:—No. 66. A widow, aged 67, Edinburgh; maintained herself for many years, has suffered from rheumatism and dropsy, on the list of candidates since 1862. No. 67. A widow, aged 70, Sussex; has passed through many misfortunes, suffers greatly from rheumatism, recommended by several eminent members of the Profession, on the list since 1866. The fund has already distributed in the course of the year (in addition to the annuities) £420 among fifty cases of extreme distress.

LECTURES ON THE LARYNGOSCOPE.—A course of lectures on diseases of the larynx and the use of the laryngoscope, illustrated by demonstrations on patients with the oxy-hydrogen light, is being delivered by Dr. Morell Mackenzie at the London Hospital. The lectures are given on Tuesdays at 3 o'clock.

FEVER AT WALTON-LE-DALE, NEAR PRESTON.—Dr. Conway Evans, who was sent down by the Privy Council to investigate this matter, reports that Walton is another Terling—a village in a dead flat, close to two polluted rivers, abounding in cesspools, and drawing its water supply from surface wells, some of which yield black stinking water, and one water at 75°, whilst the air is 69°. There have been 148 cases and 7 deaths from typhoid. Dr. Ashton, of Walton, writes to the local papers in a consolatory style, and seems to throw doubt upon the fæcal origin of enteric fever. One thing is clear—that, if fæces can breed fever, the people of Walton deserve to have it for their neglect of water supply and of proper measures for disposing of their sewage. Seven years ago the four assistant overseers for the twenty-five townships of the Preston Union (only eighty-nine square miles) were appointed inspectors of nuisances at salaries of £5 each, which salaries, in 1864, were reduced to 5s.; in 1866 (through fear of cholera) some superintendents of police were appointed inspectors without salary: some pigsties were abolished, and disinfectants and cholera medicines were distributed. On June 9 four police sergeants were made inspectors of nuisances. Meanwhile, a clergyman has made the discovery that overwork before Whitsuntide was a probable cause of the illness.

THE PROFERT MEMORIAL FUND.—A meeting of old Epsom boys, under the presidency of Dr. Thornton, will take place on July 13, for the purpose of discussing the shape the memorial shall assume. Most probably a library will be selected, as calculated to do most good to the College. We sincerely trust that, since a memorial has been resolved on, one worthy of the College and its founder will be the result. To this end, however, unanimous action on the part of the old boys will be necessary; and, seeing that the object is to improve the efficiency of the great public school of our Profession, we do not see why the general body of Medical men should not step forward and lend a helping hand in a matter that may be said to be of prime importance to the future welfare of this useful institution. This we can say—that the originators of the scheme will gladly receive aid in the advancement of their worthy project.

MEDICAL CHARITIES.—The late Dr. George Edward Aldred, F.R.C.S. Eng., of Richmond, Surrey, has bequeathed his property principally among public charities. He directs all bonds held by him in the Portuguese funds to be sold, and the proceeds divided, in sums of £100 each, amongst the following Medical institutions:—The Samaritan Hospital at Bournemouth; Convalescent Hospital, Brompton; Children's Hospital, Great Ormond-street; the Royal Medical College, Epsom; the Institution for the Relief of Widows and Orphans of Medical Men; and such other Hospitals and institutions in town and country as his executors may deem worthy of support, and all legacies to be paid free of duty.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

A.—You are right in your belief. M.R.C.S. is the true title.

B. H. B.—Is Cranbrook.

D.—[illegible] shall appear next week.

E. B.—If you [illegible] you can summon him in the County Court under the Medical Act.

F.—[illegible] will not be paid in the Court of [illegible].

A Member of Dr. Watson on the Chest.—Hall appear immediately. Dr. Matthews Duncan's Obstetrical Essays shall also receive early attention.

I.—The vacancy in the Dental Board caused by the resignation of Mr. Luke, will not be filled up for the present, as another vacancy in that Board will [illegible].

M.—[illegible], F.R.S., [illegible] Master of the Society having [illegible] the Chair [illegible] Justice of the Peace.

The *London and Middlesex Express*, of June 18, contains some notice of Mr. R. G. Sillar's plan of purifying sewage by means of alum. Twenty thousand gallons of sewage, it is said, may be purified for about 8*s.* 6*d.*, while the manure produced is worth about 50*s.* per ton. In some recent experiments at Tottenham, 35,000 gallons per minute; even at this rapid rate the process answered perfectly, the solid matter being easily precipitated and deodorised, while the liquid passed off in a state pure enough to satisfy the trustees of the River Lea.

Great complaints were made by Volunteer Medical officers of the Medical arrangements for the Windsor review. A considerable number of volunteers fell out from exposure, fatigue, and other causes, but there were no proper means of relief in the hands of the Volunteer Surgeons. An ambulance which had been on the ground a short time before the day to give assistance, but no official intimation of its whereabouts was given to the Surgeons on the ground, and no means whatever were supplied to afford relief to those who fell out or were injured. It is surely high time the War Office should put this branch of the service on a useful footing.

Dorset County Hospital, Dorchester.—A meeting is to be held on June 24, to elect to the vacant offices of Consulting Surgeon and Surgeon to this Institution, also for the purpose of considering the propriety of increasing the staff by the addition of at least one Surgeon. It is felt that an addition to the staff is expedient not only for the interests of the patients, but as a matter of justice to the Practitioners in the town—one of whom, Mr. Emson, received 313 votes six years ago, when he was a candidate; and another, Mr. Good, was the first House-Surgeon to the Institution, and has constantly attended its practice. Dr. Cowdell testified, at a meeting of Governors on the 18th, that the Surgical practice could not have gone on without his services as chloroformist for many years. We hold that all Hospital appointments should be considered not as the property of the few, but as a privilege for all the best men within reach, to give them the opportunity of enlarging their experience and benefiting the sick.

F.R.C.S. Eng.—It is too late to make any alteration in the arrangement of the Fellows' festival. Every year we have complaints of these meetings taking place at a London tavern in the dog days. You should write to Mr. Hulme, the honorary secretary.

"BEAUTIFUL FOR EVER!"

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg leave to ask some one of your readers to do me the favour of informing me whether there is any, and what, hair dye which may be safely used to restore brown hair turning grey to its original colour. The subject of the premature decoloration of the hair is a young Medical man whose interests may be seriously imperilled by his becoming grey.

I am, &c. A PHYSICIAN

COMMUNICATIONS have been received from—

INCREDULUS; A PHYSICIAN; Dr. J. G. MACKEAR; Dr. W. H. PEARSE; Dr. THOMAS RADFORD; Dr. MAUNSELL; Mr. WM. TALLACK; Dr. ADAM OWEN; Dr. REDWOOD; Dr. BROADBENT; Colonel PRICHARD; Mr. H. BOGHAN CARTER; Mr. RICHARD LEWIS; W. L. W.; Mr. D. B. BALDING; Mr. HOLMES; Dr. GERVIS; Dr. WILKS; Dr. SAWYER; Mr. J. CHAVTO; Dr. HUGHLINGS JACKSON.

BOOKS RECEIVED—

Report of the Glasgow Dispensary for Skin Diseases—Guy's Hospital Medicine—Report on Diseases treated in the District Prison Hospitals of Mauritius—Report of the Committee of Visitors of the Surrey Lunatic Asylum, 1867—Spender on Ulcers—Wolff's Schlangenbad as a Watering Place.

NEWSPAPERS RECEIVED—

Marylebone Mercury—Medical Press and Circular—Liverpool Mercury—Edinburgh Daily Review.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 20, 1868.

BIRTHS.

Births of Boys, 1024; Girls, 1001; Total, 2025.
Average of 10 corresponding weeks, 1858-67, 1867·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	656	672	1328
Average of the ten years 1858-67	568·5	568·2	1136·7
Average corrected to increased population..	..	..	1250
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small Pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	Typhus	Diarrhœa	Cholera.
West ..	463,388	..	6	6	..	4	4	1	3
North ..	618,210	1	13	8	..	13	8	1	4
Central	378,058	1	5	3	..	4	2	11	..
East ..	571,158	1	16	3	..	16	16	17	1
South ..	773,175	2	19	12	2	21	5	10	..
Total ..	2,803,989	5	59	32	2	58	35	40	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·031 in.
Mean temperature	67·4
Highest point of thermometer	88·1
Lowest point of thermometer	49·2
Mean dew point temperature	54·9
General direction of wind	Variable.
Whole amount of rain in the week	0·04

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 20, 1868, in the following large Towns:—

Boroughs, etc.	Estimated Population in middle of the Year 1868.	Persons to an Acre. (1868.)	Births Registered during the week ending June 20.	Deaths. Corrected Average Weekly Number.	Deaths. Registered during the Week ending June 20.	Temperature of Air (Fahr.). Highest during the Week.	Lowest during the Week.	Weekly Mean of the Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Tons per Acre.
London (Metropolis)	3123635	49·1	2025	1441	1328	88·0	49·2	65·4	0·04	4
Bristol (City) .	167487	35·7	130	75	85	..	..	..	..	..
Birmingham (Boro')	356296	45·6	219	171	140	82·0	45·2	61·9	0·00	0
Liverpool (Borough)	506176	98·0	410	290	250	81·2	49·6	61·4	0·00	0
Manchester (City) .	366835	81·8	345	208	226	..	..	..	..	..
Salford (Borough)	117162	22·7	108	59	52	85·7	44·6	59·6	0·01	1
Sheffield (Borough)	232362	10·2	182	132	121	85·0	41·7	60·4	0·10	50
Bradford (Borough)	108019	16·4	58	55	52	..	..	..	..	..
Leeds (Borough) .	236746	11·0	221	120	102	79·0	39·0	60·4	0·00	0
Hull (Borough)	108269	30·4	107	50	57	81·0	39·0	59·1	0·04	9
Newcastle on Tyne, do	127764	23·9	83	68	50	77·0	47·0	58·5	0·00	0
Edinburgh (City) .	177020	40·0	146	85	71	78·7	42·0	58·5	0·16	10
Glasgow (City) .	442850	88·3	291	262	242	..	..	..	..	..
Dublin (City and some suburbs)	319935	32·8	167	157	167	76·4	45·7	61·8	0·01	1
Total of 14 large Towns . .	6281950	34·7	4146	3068	2753	88·0	39·0	60·7	0·04	4
	(1863)				Week ending June 13.	Week ending June 13.				
Vienna (City) .	560000	..	..	..	..	..	..	..	..	..

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·031 in. The barometrical reading decreased from 30·15 in on Tuesday, 16th, and Thursday, June 18, to 29·86 in. at the end of the week.

The general direction of the wind was variable.

Note.—The population of Cities and Boroughs in 1868 is estimated on the assumption that the increase since 1861 has been at the same annual rate as between the censuses 1851 and 1861; at this distant period, however, since the last census it is probable that these estimates may in some instances be erroneous.

The deaths in Manchester and Bristol include those of paupers belonging to these cities who died in Workhouses situated outside the municipal boundaries.

† The mean temperature at Greenwich during the same week was 62·6.

APPOINTMENTS FOR THE WEEK.

June 27. Saturday (this day).

Operations at St Bartholomew's, 1½ p.m.; St. Thomas's, 9½ a.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

29. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 9 a.m. and 1.30 p.m.

30. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal Free Hospital, 9 a.m.

July 1. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Ophthalmic Hospital, Southwark, 2 p.m.; Samaritan Hospital, 2.30 p.m.

OBSTETRICAL SOCIETY OF LONDON. (Meeting of Council, 7 p.m.), 8 p.m. Dr. Barnes, "On Chorea in Pregnancy." Dr. Copeman, Norwich, "On the Treatment of Imperforate Hymen, with retained Menstrual Fluid."

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.; University College Hospital, 2 p.m.

3. Friday.

Operations at Westminster Ophthalmic, 1½ p.m.; Royal Free, 1½ p.m.

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LIST OF ERRATA.

Page 45, col. 1, line 5, *read* "Pau," *vice* "Paris."
Page 154, col. 1, line 25 from bottom, *read* "Parker," *vice* "Harper."
Page 248, col. 2, line 22 from bottom, *read* "mask," *vice* "mark."
Page 499, col. 2, line 18 from bottom, *read* "increase," *vice* "exercise."

END OF VOLUME I. 1868.

LONDON:
PRINTED BY BENJAMIN PARDON, LOVELL'S-COURT, PATERNOSTER-ROW.

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